

THE GOLF MYTH COLLECTION

BOOK D VOLUME 1

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BOOK D
Volume #1

The
'555 GOLF ACADEMY'

'Where Passion Meets Performance'

and
where you can achieve

'PERFORMANCE EXCELLENCE'

with help from
the '555 TEAM'

C1]

INSEPARABLE

Remember that **'FITNESS & MECHANICS ARE INSEPARABLE'**.

There is no true maximized 'Golf Success' without a generous and balanced amount of both these primal 'Aspects'.

The 'FITNESS' component enables the 'Physics & Mechanics' to blossom into a real thing of beauty.

The 'MECHANICAL' component gives the 'Fitness' a place to shine!

Putting the two together makes for a 'Rhythm, Cadence, Timing, Tempo and Pace'. You can keep things together if you are fit. 'Strenght In Unity' seems in place?

If you do not have a 'Golf Mechanic', your '555 TEAM' can help!

If you do not have a 'Fitness Specialist', your '555 TEAM' has a reliable handle and strong grip on that as well.

This 'TEAM' reaches far and wide for you!

Let's work towards putting it all together.

"Welcome Aboard!"

"Enjoy The Ride!"

C2]

PHYSICS and MECHANICS
(vs. Geometry and Feel)

- 1) Central Reality the **'Swinging Motion'**
Sir Isaac Newton's **'LAWS OF MOTION'**

COMPONENTS AND PROCEDURES:

Remember, we are going to make this all happen for **'YOU'** in an orderly fashion with 'Pre-Selected Components' and 'Pre-Selected Procedures' that fit your 'Personal Configuration' ... fancy words for 'Body Type' ('Physical Ability') and 'Mentality'. That is your **'Physiology and the Psychology'**. It is not a daunting task when you know what you are doing. Don't make it more than it really is! Most Golfers and, I might add, instructors do just that to their own disservice. We **'MUST'** attack and solve **'Complexity With Simplicity'** in order to have high probabilities of success, not only in Golf, but in our daily lives.

- 2) **THE BASIC ESSENTIALS:**
('Components' that will make 'Procedures' possible)

a) **STATIONERY HEAD:**

Proper Function of the 'Top Of Your Human Tether Ball Pole', that 'Steady Head', is primarily the result of understanding human 'Physics and Mechanics' combined with **'Ocular Acuity'**. Those 'Captain Eyes' are primarily responsible for this steadiness. Can you see how our '555 Components & Procedures' are never outside the loop? These are core aspects that you can quickly master.

The head moves three dimensionally; 1)up and down, 2)laterally or sideways through either tilting, swaying and sliding or 'Weight Shift through 'Coil', 3)then forward and backward via 'Inclination or Weight Shifting' heels to toes or vice versa. The 'Head' can also rotate clockwise and counterclockwise but any active 'Motion On This Rotary Axis' should be limited to it's being caused by the initial turning of the 'Shoulders or the Spinal PIVOT'. As long as

you are focused on the 'Bottom Inside Cheek' ('BIC') of the Ball, your 'Head' shall remain very steady. This enables 'Coil, Load or Winding' followed by effective and efficient 'Un-Coil, Un-Load and Un-Winding'. 'FEEL' Like Your Head Is 'Floating' Steadily Atop Your Properly 'SET-UP Spine' while your 'Eyes' stay focused on that 'BIC' where the 'Clubhead Sweet Spot' meets the 'Ballistic Impact Point' or 'Butt Of The Ball'.

THESE MOVEMENTS

PLANE ONE:

Movement of the Chin 'Up and Down' during the 'Swinging Motion' is detrimental to one's ability to return the Clubhead to the 'Set-Up' or 'Address Ready' position. If 'Your Head' moves or is unstable, so too will be your 'Orbital Clubhead Path' getting reliably away from and back to the Ball. 'IMPACT FIX to IMPACT & SEPARATION' will not happen as you desire. Frustration! Easily improved immediately by good focused 'Eyes' and a resulting 'Steady Head'.

Remember, when your 'Lever Assemblies' are extended and stable, if your head moves up and down, so too does the 'Golf Clubhead'. This makes for inconsistent 'PLANE, PATH, IMPACT & SEPARATION' which produces 'Off Sweet Spot Impact With Poor Energy Transfer' 'Clubhead to Ball'. Golf is all about 'Compression and Line Of Compression'. That is about as simple a definition of 'Golf' as exists!

PLANE TWO:

If your head is moving 'Forward and Backward', you will likely be teetering on a poorly-prepared unstable 'STANCE PEDESTAL' ('LBM'). Thus your Clubhead will be moving closer to or farther from your Feet or the 'BALL LOCATION' point. Even if your 'STANCE' were perfectly 'Set-Up', moving your head improperly is detrimental. Your 'Optimal Ball Location' ('OBL') should naturally stay fixed but, moving about, you will have difficulty making solid contact. Heeling and toeing the ball (poor contact) will be inevitable.

PLANE THREE:

The 'Third Plane or Dimensional Movement' is '**Lateral or Sideways**'. This is a result of natural body movement. Your head 'Floats' on top of your Spine and some lateral movement should not be resisted or your Balance, Rhythm and Comfortable Motion will be compromised. With a '**Stuck Head**', you will find yourself in what we call the '**Reverse Pivot**' or in the '**Head Locked In Place**' condition. I think these problems are generally caused by vocal 'Golf Instructors' who profess that 'KEEP YOUR HEAD DOWN' is good advice and beneficial to all our welfares. Simply not the case!

When you 'Turn or Coil' to the 'Brace or Load Side', your head will shift slightly 'Brace Laterally' as your 'Centre Of Mass' or body turns to the 'Brace Side'. '**Keep Your Eyes Directly On The Butt Of The Ball!**' Your Head may tilt very slightly to the 'Brace Side' and also rotate toward the 'Brace Side'. Both these actions, as mentioned above, are the natural result of cooperation with the 'LBM Body Coiling'. The head does not 'Bob' up and down or lean forward or backward. When you fire the load or coil to the Target Side, your head will momentarily stay behind the ball through '**IMPACT & SEPARATION**' and then float and follow ending up forward and to the inside of your '**Target Foot**'.

'DO NOT BLOCK', fix or force your head to be 'Pettrified On Top Of Your Shoulders'. Let it 'Float' keeping your 'CHIN Tallish' while feeling comfortably 'Balanced'.

Do you think that 'Relaxation' might be a benefit to or ingredient in making a soild repeatable 'Golf Swing'. Work diligently towards that end!

b) **BALANCE:**

'**Feel Balanced**' At SET-UP And During Your Entire Swing'. It is fundamental you understand that your 'CAPTAIN EYES' are the primary source of information gathering relating to balance. Make sure you diligently see the 'Golf Ball' during 'SET-UP and Swing'. Once your 'IMPACT and SEPARATION' are completed and 'Pivot Release' has been effected, allow your head to turn with your shoulders and look directly at your 'Target'. This 'BALL-PIN' visual stability will translate directly to your overall 'Body Balance'. I think there is such a thing as 'EYE Release'! (see 'VBRP #1 and VRBP #2')

c) **RHYTHM, TIMING AND TEMPO:**

Swing the Clubhead 'Bottom Top Bottom' and 'Feel The Steel' during this smooth 'Swinging MOTION'. **Rhythm And Cadence Will Be a Very Natural By-Product Of This Balanced 'SWINGING MOTION'**. You already know that the '555 TEAM' uses the 'Trigger Words', 'One & Thru'.

d) **YOUR HANDS GET TO THE BALL BEFORE THE CLUBHEAD:**

'GRIP' is part of your '5 SET-UPS'. Your '**NAVIGATOR HANDS**' are key '**Components**' of course. There are but one or two highly specialized and risky '**Procedures**' that do not obey this 'Basic Essential'. One that is well known is the 'Driving Protocol or Procedure'. The other is the 'Throw-Away Procedure' utilized with your wedges to increase 'Net Effective Loft' and induce 'Exaggerated Back Spin'. All the other 'Golf Shots' are best served with your 'Hands Getting To The Ball Before The Clubhead' or with a condition we call 'Forward Press'. (more soon)

3) **PRIMARY IMPERATIVE:**

IMPACT & SEPARATION

solid consistent central 'Sweet Spot' hits

If we cannot put a 'PURE HIT' on the 'Butt of the Ball' and make it go away, we need not worry about much else. The first thing we need to accomplish is to make the 'Little White Ball' 'GO AWAY' and then we can worry about 'Where' and 'How Far'.

4) **PRIMARY ABSOLUTES:**

Our '555 Golf Set-Ups' (Posture, Grip, Stance, Ball Location & Alignment) really matter at all times, with any golf club in hand!

ALIGNMENT/STANCE: Straight, fade and draw flights



CLUBFACE AIM Component

1) **'Flat Target Wrist'** (swinging arm) the line your forearm should continue straight down the back of your Hand. At IMPACT, especially, you should have NO Horizontal Hinging of your Target Wrist. It may 'Cock' (Vertical Hinging) but it may NOT break down laterally. Simply, when this breakdown occurs, your Clubhead will be closer to the Target than the back of your Target Hand. This causes 'Clubhead Throwaway' and whole lot of related bad things to happen. It's a place you do want to be!

ALIGNMENT & STANCE Component

PIVOT Component

2) **'Clubhead Lag Pressure'** (keeping the parachute full during the entire forward swing until clubhead release and impact have been accomplished.) Clubhead Throwaway is quite the opposite.

PLANE Component

3) **'Straight Plane Line'** (suitable geometry) in both the back and forward swings. The 'Tilting Nature' and set-up line of the Two Lever Assembly (Shoulder, Arm, Hand and Clubshaft) should not change throughout the entire Full-Circle swing.

HAND Component

4) **'The Hands Get To The Ball Before The Clubface'** This is similar to what we call 'Foreward Press'. Your 'IMPACT FIX COMPONENTS' included this 'Primary Absolute' function and warrant your utmost attention.

Get to know these 'Terms and Functions' very well indeed. They will serve you well and enable your ability to improve steadily until you become a leading scorer in your club. That includes becoming more popular too!

5) **SECONDARY ABSOLUTES:**

These 'Secondary Absolutes' are not put in any specific order of importance or rank, so learn what you can about each one and gradually apply this knowledge to your entire 'Golf Swing'. There may be a little redundancy in this list as well, but enjoy hearing about important items more than once! If you were to never leave home without any of these, you would be well served on the 'PGA TOUR' perhaps!

- 1) **'Clubhead PATH'** as Pre-Selected
- 2) **'Clubface AIM'** as Pre-Selected
- 3) **'Clubhead Speed'** as required
- 4) **'Optimal IMPACT Area'** (OPA) or **'Sweet Spot'**
- 5) **'Angle Of Attack'** as Pre-Selected
- 6) **POSTURE** CHIN Tallish, Matador Proud, Forward Inclination with Spinal Aft-Tilt
- 7) **GRIP** properly designed and functional
- 8) **STANCE** Proper Foot AIM and Width
- 9) **BALL LOCATION** Optimal, Clavicle
- 10) **ALIGNMENT** 5 Axes properly 'Set-Up' to support and promote facilitated Pre-Selected 'PIVOT or Rotation'.
- 11) Proper **'Tempo, Timing, Rhythm, and Balance'**
- 12) **Controlled PIVOT**, i) Brace Side/Post
ii) Target Side/Post with proper 'Spinal Inclination and Aft-Tilt'
- 13) Longish Levers (**EXTENSION**) swinging under that Tallish CHIN with the Matador Proud 'FEELING'
- 14) Hands and Arms 'FEELING' **DEEP FLAT WIDE**
- 15) **'EYE-HAND Co-Ordination'**
'See the Ball Come Off the Clubface'
- 16) Balanced / Controlled **BREATHING**
Rhythmic Balanced Tension & Relaxation
(paired and co-operative Tetanus / Tonus)
Exhaling While Clubhead is in MOTION
- 17) Swing the Clubhead (geometrically) on Plane, Up & Down, 'Along the Target Line' to the Pin, Follow and Finish relaxed. (breathing out) Looking

Directly Intensely at the Pin (target). FEEL like you are 'Rolling the Clubhead' like a big wheel, right down the centre of the fairway road dead at the hole.

- 18) **'Clubhead In The Proper ORBIT and ON PLANE'**
- 19) **'Brace Toe Pressure'** Stimulates B/F Pre-Load
- 20) **'Brace Foot Pre-Load'** Activates B/L Drive
- 21) **'Brace Leg Drive'** Powers the PIVOT (LBM)

The 'Brace Side Does The WORK'

- 22) Stable Flexed Brace Knee
('Base of PIVOT or Coil')
- 23) Stable 'Spinal Crankshaft or PIVOT' (resultant of
the Stable Flexed Brace Knee)
- 24) **'SEEING THE BALL COME OFF THE CLUBFACE'**
'Ocular Acuity'
- 25) **Pre-SHOT ROUTINE**
- 26) **Post-SHOT ROUTINE** Evaluate Ball Flight related
to Your Pre-Selected Components and Procedures
- 27) **'Compression and Line Of Compression'**
- 28) **TAKE DEAD AIM** "If you have nowhere to go,
QUARTER you will go nowhere!"

29) **VISUALIZATION**

- 30) Play in the 'Present Tense'
- 31) Play in the 'Trusting Mentality'
- 32) **'YOU'** are the best and most important piece of
equipment that you own. 'Be The Best You Can Be'!

Sounds like a '**Tall Order**'! Well it is not as '**Burdensome**' as one might think when some basic rules and Procedures are understood, adopted and applied '**Consistently**'!

FINALLY:

Always keep your '**5 CONTROLS**' in mind and functional as these checks will protect your performance from mechanical breakdowns.

CHIN, HANDS, FEET, BALL, PIN

6) **TWO APPROACHES to LEARNING GOLF:**

'PHYSICS & MECHANICS' 'GEOMETRY & FEEL'

Some '**Mechanics**' is important. Learn '**FEEL From Mechanics**', and not '**Mechanics From FEEL**'. '**Alignment Golf**', '**Swinging the Clubhead or Clubface From Square To and Through Square**', will get the primary jobs done. '**Learn the FEEL**' of doing these '**Mechanical Motions**'. This simplicity will dispense with all dependence on '**Mandatory Positions**' which can be perfectly executed but still miss the ball. Don't get caught in the '**Position Golf**' trap, ("Where's my elbow about now?"). '**Alignment Golf Simply Outperforms Position Golf**', so translate your '**Position Procedures**' into '**Alignment Procedures**' as fast as you can.

I think, no I know, it is more important and productive to '**Focus**' on getting your Clubhead from and back to Square than it is pondering where and what various parts of your body are doing at any time or point in the entire Swinging Procedure. My only personal exception to focusing on a '**Specific Body Machine Component**' is to always know precisely where the Back of my Target Hand is located and pointed or AIMED. The '**Back Of My Target Hand**', the '**Target Wrist Hinge Positions and Actions**', without any question, absolutely determines the '**Conditions Of The Clubface At IMPACT and SEPARATION**'. This is a '**Primary Control**' of initial and overall '**Ball Flight**'.

7) **TWO BASIC SCIENCES:**

The Golf Stroke involves two basic elements - the '**Geometry of the Circle**' (the Clubhead must travel generally in a circle) and the '**Physics of Rotation**' (turning about your Spinal Axis or Pivot).

There are ONLY two basic strokes - '**HITTING and SWINGING**'.

The physics of Hitting is Muscular Thrust, and of Swinging, Centrifugal Force, the 'Outward Slinging of the Clubhead'.

Herein, '**MOTION IS GEOMETRY**' and '**ACTION IS PHYSICS**'. Hitting and Swinging seem equally efficient. The difference is in the players. If strong - HIT. If not so strong and quick - 'SWING'. If you are a balance of the two, do both or either, '**CONSISTENTLY BLENDED**' and with reliable basic discipline. Most of the great golfers are 'Swinging Hitters'.

The Golf Swing develops '**FROM THE GROUND UP**' and '**FROM THE INSIDE OUT**', pure and simple. This, perhaps above all else, you must understand and know. 'Conceptualize', 'Intellectualize' and 'Actualize'. Never lose sight of these two phrases as long as you 'Swing the Stick' through the Ball.

This 'Mastering Of The Basics' will avoid '**Get Lucky**' or '**Crap Shoot GOLF**' and make you happier!

8) **THREE TYPES OF SWING PHYSIQUE:**

'The L.A.W. TRIO'

Over the years of looking at many golfers from a pre-lesson analytical perspective, I have come to deduce that a golfer's physique determines the type of swing style that will be employed with the longer clubs, in fact, all clubs including the 'Putter'. Swing plane is more pronounced or easily seen with longer clubs.

We are all different people inside and outside. So all we golf teachers and instructors remember that!

The **'THREE PHYSIQUES'** and swings are as follows:

TALL AND SLENDER:

a) 'Tall and Slender' producing a pronounced **'LEVERAGE SWING'** which is generally more upright than most. This type of build usually has longer arms with the forearm section of the lever being longer than the upper arm or biceps portion. If this tall person were to stand, back-to-wall, and simply raise the thumb up to the Shoulder, the Hand would be **'Above'** the shoulder socket and quite **'Ferris Wheel'** in nature. There will be a significant amount of **'Lift'** combined with a generous amount of **'PIVOT'**. This variety has a **'Long Rope and Tall Pole Tether Ball Set-Up'**.

'SWINGING'

Likewise, if this person were to stand still back-to-wall with both arms outstretched and horizontal to the floor, then, without actually turning the Shoulders but simply swinging the Target Hand and Arm across the chest, the fingers would swing past the extended Brace Arm. The Target Hand would swing across the chest beyond or outside the Brace Shoulder Line. This demonstrates both arm length and range of flexibility. This person is a **'LEVERAGE SWINGER'**. This is the **'Big Rolling Wheel'**. This person is a **'Free-Wheeler'**!

STOCKY AND MUSCULAR:

b) Stockier and quite muscular utilizing the leverage swing mechanics but implementing more body or trunk POWER in a more Brace arm **'Piston Action IMPACT'** application.

'SWINGING & HITTING'

The range of motion test will result in the Vertical Hand Rotation placing the Brace Hand level with the Shoulder Socket. Thus less leverage.

Also in the **'Cross Body'** range of motion exercise this physique will end up more with the Target Arm and Hand (Lever Assembly) just

reaching the outstretched level Brace Arm and not going outside the arm line beyond the shoulder. This swing will be less upright than the most leverage capable athlete. Such a person is an '**ARC SWINGER**'. This is the 'Medium Rolling Wheel'.

THICK CHESTED AND BULKY:

c) 'Thick chested and trunk-powerful'. This physique actualizes motion in a pronounced punching action using perhaps more '**PISTON-LIKE TORQUE**' than other swing patterns, (ie. Craig Stadler, Ben Sutton and John Dudley). This swing has significantly less 'Range Of Motion' than that of Ernie Els, Davis Love III or Fred Couples. The Torque Back Swings are much more abbreviated due to lack of mobility or flexibility. The Swing Planes tend to be much flatter, moving the arms and club shaft 'Lower Around the Spine' than the more upright longer boned leverage player. This physique promotes more being a '**WIDTH SWINGER**' which is quite 'Round & Round' rather than any large free-flowing Motion such as an Ernie Els might create.

The Stadler swing tends to be more 'Carousel' than 'Ferris Wheel'. He is a 'Short Rolling Wheel'. I still like to think of these three varieties of 'Swing' in the 'Tether Ball' analogy. The 'Leverage' type has a longer rope and generally a taller pole than do the 'Arc and Width' types. The 'Width Player' may even have a heavier or thicker rope too! This person is a '**PUNCHER**'!

'BRACE HAND HITTING'

(but always with some 'Swinging')

Vertical Range-of-Motion evaluation will reveal the Brace Hand swinging up below the Shoulder Socket (a little 'PUNCHY') as opposed to over or above the Brace Shoulder. The Horizontal Range-of-Motion will conclude with the Target biceps tightly pressed against the Target breast and the tip of the target fingers swinging laterally short of the level outstretched Brace Arm or Lever. Thus, the 'Mirroring Brace and Target Side Profiles'; right side equalling the left side as the case may be.

The bulky musculature will invariably have less 'Range-of-Motion' on both sides of 'Set-Up or Address FIX', than does the less bulky physique.

This 'Trunky' person may swing flatter, with more abbreviation TORQUE or a less-full swing than does the taller leaner more LEVERAGE capable individual.

The physiological conclusion here may be that the taller thinner individual can turn and lift farther tending to be more upright-planed and with more supple movements than the bulky trunk muscular person who will be flatter-planed and 'Punchier' in power delivery.

Remember, the 'Human Component' is amazingly variable! Don't discount anything or 'Count Your Chickens Before They Really Lay Eggs'!

What should a good teacher do to modify these various individual capabilities into more consistent swing movements? **NOTHING!**

Only a fool would try to make a 'Silk Purse Out Of a Sow's Ear'. Any such characteristic modification would violate the '555 Golf Academy's '3 C's' and really compromise the client's best interests. Work with the basics provided by the client and strive to improve the 'Physiology' if necessary and possible.

L.A.W.

The above three 'Physical or Physique Types' produce three very different types of 'Muscular Motion' as explained. How do I remember these different types of make up and performance? By the 'Acronym' '**L. A. W.**' (like the 'Laws Of Physics') which stands for or reminds me of '**Leverage, Arc and Width**'!

IMPORTANT NOTE ON PHYSIQUES:

You have heard me talk about the '**Components and Procedures**' on many occasions before. It is because I have never come across a better concept to 'Encapsulate' the entire consideration of how to take the parts and enable them to perform a specific task correctly. If we want to plant potatoes, we have to do numerous tasks in order to get this relatively simple job done. First we must define the need and desire, Then we must 'Make The Decision' to produce this tuber. Next we devise a game plan and a schedule. Then it is time to get the raw materials and tools organized and procured. We must select a plot of ground suitable for the project.

Get the tools and raw materials on site. Ensure we have the proper skills and knowledge for the job. Lay out the plot. Plant! The job is not nearly complete. Watering, weeding, thinning, monitoring, market planning and transportation (if we are going to sell the crop 'Off Property'). Scheduling again. Harvest, etc.

Oh yes, one more point. We need to ensure that the farmer's body is adequate to do the job! Capability, Fitness, Rest and Nutrition!

In farming or gardening it is perhaps not as important as in Golfing, the 'Physique Thing', I mean. We do not need quite as steady a 'Head and Spinal Crankshaft' in producing a crop of potatoes as we do in making the 'Golf Stroke'. The 'Golf Ball' is generally smaller than a potatoe. The 'Clubhead' is smaller than the shovel. Getting the 'Tool' to a precise place on the ground is not such an issue in cultivation as in 'Striking a Golf Ball' whereby we strive to achieve $\pm 3/16^{\text{th}}$ of an inch accuracy.

The point? This is really a matter of '**BASIC PHYSIOLOGY**' or the 'Body Machine'. Very tall people have two concerns or challenges. Firstly, the distance from the base of their spines and the base of their skulls is a long way. Therefore, there is a lot more length of spine to twist out of the safety zone for '**RANGE OF MOTION (ROM)**' and more back ailments occur when there is abuse of this 'Spinal Crankshaft'. Secondly, where there is a lot of 'Distance' between two body points, there is a lot more room for movement. The tall creatures have a greater challenge in 'Keeping A Steady Head' atop that long Spine ('The Big Pile Of Parts'). Very tall people are much more hard-pressed to make solid contact every time and also to control 'Ball Flight' as well as a shorter person.

It takes more 'Raw Horsepower' to move a big fellow than a smaller version. Perhaps more 'Tension' as well? Minute personal factors!

I want to assure you, it is a greater challenge for Michael Jordan to perform 'Precise Long Iron Shots' than it is for Ian Woosnam or Tom Lehman who are both shorter stockier and have a relatively short swing. Corey Pavin has different challenges or tasks than Michael, Ernie Els and Stuart Cink.

Due to the amount of movement taking place in long backs, the owners must be more careful to '**Stretch and Strengthen**' in order to prepare their 'Machines, their Tools' for the task at hand. An Ernie Els has tremendous 'God-Given Talent' and can produce 'Clubhead Speed' quite 'Out Of This World' with relatively minimal

effort, but there is a price. He, along with people like Fred Couples, David Duval and many more, has a delicate back, perhaps chronic in its recurring ailments. Not only these hard-working athletes but all athletes must attend to the 'Fitness Issue' or 'Pay The Piper' sooner or later.

So here you see that the '**PHYSIQUE ISSUE**' relates directly to the penchance for soft tissue injury and to the ability or inability of 'Re-SQUARING the Speeding Clubhead at the Moment Of Separation'. Tall, 'Long Spines', with all that 'SLACK', "Beware"!

Who said Golf was designed to work? It may have been designed by the 'Devil' as punishment?

"The more I discover this Game the closer its universal management seems to my business! We all need professional assistance at getting from 'A TO B', don't you think!"

Indeed, in order to be 'Optimally Successful', 'Golf Takes Management' every magical yard of the 'Journey'.

9) **STROKE LENGTH:**

While we are on this topic of 'Leverage, Arc and Width', we might discuss 'Stroke Length' as well. Let us see if we can make more sense of what could be a very 'Mechanically Complex' topic. I like simple! You too?

'Swing Radius' is the 'Distance From The Target Shoulder Socket To The Sole Of The Clubhead'. The 'Distance The Clubhead Is Made To Travel Throughout The Entire Back and Front Swings' ('Swing Circumference') is directly related to the 'Brace Hand Travel Distance' ('BHTD'). We sometimes call it the 'Clubhead Travel Distance' but the 'Body' makes it happen'!

'Stroke Width' is the 'Distance From The Target Shoulder Socket To The Butt Of The Handle Or Of the Target Hand'. This term relates to the 'Extension Of The Target Lever' ('No Elbow Bend' - 'In Line Component'). Hence the term 'Dead Target Rope'. This 'Target Lever' feature is controlled by the degree of 'Triceps Extensor Action' and to the effectiveness of our ability to allow 'Centrifugal Force' to perform its 'Natural Relaxed Duty'! The 'Target Dead Rope' syndrome is perfect function!

This magical 'Swing Radius' ability enables us to be 'Deep, Flat and Wide' as well as 'Low & Slow'.

Let you 'Brace Hand' effect the 'Take Away WORK'. Make sure your 'Lower Body Machine' attend to the 'Rotational Motion' ('R&R'). See if you can let the 'Target Lever' more 'Come Along For The Ride' than 'Carry The Load, Do The Work and Be The Sherpa'!

The 'Brace Side Of The Machine' is the 'Dominant Motion or Power Creation Side'.

Period!

Let me just throw this at you. If you were to have an internal combustion engine with 'Big Pistons' (displacement) travelling up and down rapidly, you would have a very powerful engine. Usually 'Higher RPM Internal Combustion Engines' in the average automobile tend to have small pistons, utilizing shorter strokes and moving faster than one with big jugs. Bigger pistons generally utilize longer strokes with slower RPM. We can generate 'Big Power' with either 'Long or Short Strokes'. A little like golfers! There is no 'One Way'!

We can 'Swing The Clubhead' a long distance ('Big Radius and Circumference Or Arc') and generate 'Clubhead Speed' relatively gradually as might Ernie Els, 'The Big Easy' or Payne Stewart. I like to think of this process as if we were watching a big transport truck gaining speed. It takes a fair stretch of roadway ('Big Swing Radius and Clubhead Travel Distance or Circumference') to get up to 60 MPH.

We can 'Swing the Clubhead' a shorter distance (smaller Radius and Circumference and Arc) and generate 'Clubhead Speed' more quickly. This is my '**Dragster Swinger**'. Perhaps more cubic inch displacement and even more horsepower but certainly delivered very quickly and producing acceleration over a much shorter 'Swing Length' than might occur with a '**Leverage Swinger**' ('**More Torque**'). This type of 'Golf Swing' produces 'Clubhead Speed' with a relatively short 'Back and Down Swing'. In other words, the 'Length of the Back Swing' in a 'Width Swinger' might appear to be somewhat 'Abbreviated' when viewed comparatively against the 'Leverage Swinger'. This 'Width Vehicle' is more like a Corvette or dragster requiring very little roadway in order to get up to 60 MPH.

Now if you can get an Ernie Els very fit and very strong, with smoothness still in the formula, you can create even more 'Clubhead Speed' than ever imagined by the 'Width Swinger'. This 'Long Powerful Combination' is relatively rare as it requires great 'Balance, Co-Ordination and Timing' to stay 'On Plane' and 'In RPM'. Dedication with natural 'God-given talent is an advantage!

10) **FOUR FORWARD SWING PHASES IN A FULL SWING:**

There are 'FOUR SEGMENTS' to each complete 'Full Swing'. (see Four Swing Segments, Ten Swing Sequences) Remember, it is my opinion, all Back Swings from Take-Away are 'Sweeping and Floating', '**LOW & SLOW**', '**DEEP FLAT & WIDE**'. In the Back Swing, it is most efficient to 'COIL from the Top Down' and in the Front Swing to 'UNCOIL from the Ground Up' and from the 'Inside-Out'.

These '4 Forward Swing Phases' are FROM THE TOP OF SWING DOWN:

- 1) **Dropping Down / Starting/TOB (#1F)**
- 2) **Accelerating / RELEASE/IMPACT/BOS (#2F)**
- 3) **Decelerating and FOLLOW-THROUGH (#3F)**
- 4) **Floating Up / FINISHING (#3F & #4F)**

An abbreviated 'Golf Swing' will cause slight variations of the '4 Swing Segments' and '11 Swing Sequences', remembering that the Clubhead Trip starts from Address or at the bottom of 'Swing Segment #2B' and then travels through #1B, going Back and Up, before it reverses Direction ('**MOMENT OF LOW INERTIA**') and starts Forward through the 'Down & Out' 'Forward Swing Segments'.

There may be a tendency to compress Swing Segments 2B-1B, 1F-2F if one has too much 'TENSION' anywhere in the entire Body (see 'No "&" Word'). 'TENSION' has a terrible ability to spread like a disease throughout the entire community. If there is '**TENSION IN THE MIND, It Will Soon Get Into Your FINGERS, HANDS and ARMS**' and spread all the way to your 'Toes'. If your 'Fingers and Forearms' are tense in the 'Back Swing', they will likely be tense in the 'Front Swing', not only in #1F and #2F but also in #3F and #4F. You will tend to 'Shorten Your Swing Radius' and 'Awaken The Dead Rope'!

With but the slightest 'TENSION' in your 'Fingers, Hands, Forearms, Elbows All The Way To Your Shoulders', you will not 'Back Swing or

Front Swing' fully to your maximum 'Top Of Back Swing' ('TOB') or 'Top Of Front Swing' ('TOF'). These are 'Swing Sequence #5 and #10' in the 'Full 11 Swing Sequences'.

'Always Complete Both Your Pre-Selected Back Swing and Front Swing Procedures' to accomplish the best results, consistently! Do so in 'BALANCE' with a generous supply of 'RELAXATION' and 'Breathing Out' so as to accomplish '**Pressure Release**' from all your utilized '**Power Accumulators**'. (see 'ALS DR') Pressure make movement. '**FORCE Moves MASS**'! Once we have achieved our 'Pre-Selected Motions' we should be at a neutral equilibrium or 'State Of Relaxation'.

The 'Golf Swing' and most 'Life Motions' develop from 'Rest' and return to 'Rest'. We sometimes call it 'From Rest To Load and Store or Potential Energy, to Kinetic Energy and Delivery, to Release and back to Rest'. That is the 'Life Cycle' of the 'Golf Motion'. Rather like 'Life' itself wouldn't you agree?

We always tend back to the 'Lower Energy State' ... 'Deterioration' or 'Degeneration'.

"Ashes To Ashes! Dust To Dust!"

ANOTHER TAKE ON THE GOLF SWING?

11) **THE FULL SWING:**

(the Full Sequence)

Bottom - Top - Bottom and T H R O U G H to the Top

I want to tell you that I personally feel my 'Full Swing' to just be a 'Turn Brace and Then Turn Target Motion'. Simple as that!

The 'Full Swing' from address to finish would be numerically stated in an 'Eleven Swing Sequence' basis as this graphics ...

(first Sweeping 5 inches)

LOW & SLOW, DEEP FLAT & WIDE, ONE PIECE TAKE-AWAY

ADDRESS		RELEASE,				FOLLOW -		FINISH	
1	2	3	4	5	6	7	8	8+ 9	10 11
		T.O.B.			B.O.S.A.			T.O.F.	BOUNCE
		DIRECTION			IMPACT				BACK
		CHANGE							

PRE-IMPACT

(last Sweeping 5 inches)

Remember, we can make this '11 Swing Sequence' much simpler if we so desire. We might just call it the 'Take-Away, Top Of Back Swing, Impact and Finish'. That works for me too! But this is thorough and interesting for your interest. Know all the 'Sequences and use whatever you feel works reliably best for you.

TO THE BACK AND UP SWING:

Starting behind the ball, 'SWEEPING DEEP FLAT WIDE', Floating up and Dropping down, PUSHING, 'FIRING and RELEASING' through the ball, continuing Down the Line, Cutting Off the Flagstick or Sugar Cane, swinging up through level and 'FOLLOW - FINISHING' fully relaxed at the Top Of Front Swing ('TOF').

We know now to 'FEEL', the 'Top of Back Swing' (TOB) when our 'Target Shoulder' is rotated sufficiently, to the 'Brace PIVOT or POST', 'Making Positive Contact With Our Stationery 'Tallish CHIN' And Simultaneously 'Cocking Our Wrists', somewhere between the 9 o'clock level position and about our 'Brace Shoulder'.

TO THE FORWARD OR DOWN AND OUT SWING:

The 'Forward or Down Swing' rather mirrors the 'Back Swing'. There are 'Balance in Motion and Profile or Shape Differences' between the backside and the frontside but they are similar. There is 'POWER' in the 'Front Swing' but more 'Relaxation and Patience' in the Back Swing'.

If you swing comfortably and symmetrically to the top of the back swing ('TOB') and allow Newton's pendulum law to keep the Clubhead swinging throughout the entire Clubhead trip (bottom-top-bottom-top), the ENERGY you apply, not interrupting the 'On-PLANE MOTION', will bring the Clubhead to a symmetrical balanced finish, or Top Of Front Swing (T.O.F.). Physics works that way so let it evolve. It is naturally accurate. Golf is a '**Let IT Happen**' event and not a 'Make IT Happen' struggle!

12) **THE LESS THAN FULL SWING:**

Bottom - Up but NOT to full 'TOP OF BACK SWING'
Abbreviated

This '**Other of Two Swings**' is any Clubhead Swing that does NOT go 'Bottom Top Bottom'. (abbreviated) A putt does not go 'Bottom Top Bottom' and, therefore, it is NOT a 'Full Swing'. Generally you will have all 'Full Swings' from your Driver down to your full Sand Wedge. There are no 'Full Swings' inside your 'Full Swing Sand Wedge Distance'. If your F/S #SW 'Optimal Distance' is 105 yards, and you do not have any more-lofted-wedge in your bag of tools, (ie. LOB Wedge) any shot inside 105 yards is necessarily '**Less Than Full Swing**' ('LTFS').

The '**L.T.F.S.**' swing is any swing that does not 'Complete The Back Swing' by getting fully to the '**Individual Top Of Back Swing**' (T.O.B.) and is thus '**ABBREVIATED IN SWING LENGTH**' to any degree.

Remember that each individual is precisely that, with the formula and design plans destroyed after the making of but one original. Each person has his own most efficient T.O.B. and must NOT be forced to over-rotate and exceed normal limits which only proper conditioning, stretching and strengthening exercises, can accomplish. If we want to look like Ernie Els and are built like Craig Stadler, we had better swing like Craig!

No teacher or instructor must ever force a student beyond his personal limit. Tiger Woods, John Daly, Jason Zuback and the Kirby Romans of this world were 'GOD created and not Man remade'! For more information, see the 'Two Swings In Your Bag' chapter.

Although redundant, I want to emphasize that the test of a completed 'BACK SWING' is that you 'Target Shoulder' has rotated

around and up to and makes positive contact with your 'Tallish Chin' and simultaneously your 'Wrist Cock' is fully in or applied and the 'Turn-Coil PIVOT or POSTING' is fully accomplished. As well, remember, your 'Brace Hand' goes up to your 'Brace Shoulder'. It is taken as an essential or 'Secondary Absolute' that you must have '**TURNED and COILED**' to '**LOAD**' that 'Body Engine or Big Muscle Rubber Band' enabling it to do the work so necessary in making a good powerful '**Un-COILING or Un-LOADING**' and forward 'GOLF SWING' happen.

13) **ALL THE STEPS:**
 (SWING POINTS)

TRIGGER: - Starting Motion: (SS#1) First Five Inches

TAKE AWAY: (to horizontal) (SS#2-3) 'Smooth...Low and Slow'
 DEEP FLAT and WIDE

TOWARDS THE TOP: (SS#4) 'Floating Up'

TOP OF BACK-SWING: (TOB) (SS#5) 'Firmly Coiled PIVOT-POSTED'
(generally Target Shoulder Contacting Tallish Chin)

STARTING DOWN: (SS#5-6)

Gravitational or Dropping Segment ('Latreal Bump')with a good straightish, extended, still 'DEEP and WIDE', but not tense or stiff, Target or Swing Arm. The best players and most astute minds in golf continue to disagree over the mysterious events that transpire on the downswing. (Swing Sequence #5 and #6 of the 555 GOLF Swing Profile) With all the apparent complexity, it's easy to see why, that is until you remove all the complexity and focus on primary reality.

While the 'Back Swing' is a relatively straightforward process, the downswing is slightly more complex and could even be looked upon as chaotic. Arms, legs, and hips are all moving at once, more or less, seldom at the same speed and often in three different directions with body parts doing six different jobs, through eleven check-points, heading to three different positions, at all real times depending on your perspective. It's a wonder, really, that the clubhead ever finds the 'Butt of the Little White Ball'.

14) **THE TRANSITION:**
 ('Interval Of Low Inertia')

This is 'Transition' from 'Rest To Motion'. It is a very delicate moment or event indeed! Just like birth and perhaps death!

I strongly believe the secret to the 'Down Swing' lies in controlling the way you make the '**Transition From The Top Of The Back Swing**' ('TOB or Swing Sequence #5') to the start of the Down Swing (#5 to #6 'Target Lever Horizontal') and on to Hands Dropping to about Hip Level (#7 Pre-Impact, 'Shaft Horizontal'). This first move down is much like putting a puzzle together. If you try jamming in all the pieces as fast as you can, you end up with a big mess. But if you start slowly put the main 'Shape & Color' characters into place first, the remaining pieces tend to fall into place and you end up with a pretty picture in no time, without frustration.

It's the same with your swing. Instead of initiating the 'Down Swing' with a violent tightening and throwing of your 'Brace Shoulder', turning of the Hips or dramatic driving with the legs (as has been so commonly suggested), focus on making a controlled smooth move with your 'Lower Body Machine TRANSPORTING Hands and Arms'. They are the navigators, those powerful controllers of the Golf Club. This is done just after '**PLANTING or REPLANTING**' of your slightly 'Un-Weighted Target Heel', which naturally starts your 'Forward Swing' '**FROM THE GROUND UP**' (see 'Lateral Bump').

The 'FEET', Brace Foot primarily, provide the 'POWER' or '**RESISTANCE FOR Un-COILING**' which enables 'Newtonian Laws of Physics' to propel your Clubhead Forward. We all know about 'Swinging and Falling Back' in our effort to drive the Ball toward the stick. This 'Swing Error' does not work!

This common 'Swing Fault' is the pure result of NOT understanding basics. In order to Propel ourselves forward in the simple 'Motion of Walking', which FOOT provides the POWER or Propulsion? Of course, the 'Rear or Brace Foot'. Fail to provide this 'Pre-Load and Brace Foot Push' and you are doomed to 'Fall Back' while in the process of attempting to drive the ball forward. You will 'Fall Back In Reaction' the the 'Mass and Momentum Of The Forward Moving Clubhead'. This 'Brace Foot Propulsion' is where the Golf term '**LEG DRIVE**' evolved. It is a real picture term if we understand the basic 'Newtonian Physics' and 'LAWs' which are NOT conjecture.

Newton's states that:

"For Every ACTION There Is An Equal And Opposite Re-ACTION".

Relating this to our 'Golf Swing' is important. When we swing and push our Hands, which hold the 'Golf Clubhead', powerfully forward toward the Target, we are simultaneously and with equal 'FORCE' propelled in the opposite direction, that being backwards. This takes place by the 'LAWS of PHYSICS' unless we oppose it. We do so by pressing down and 'PUSHING' forward with our Brace Foot at the same time we try to 'THROW the Clubhead' forcefully through the Ball toward the Pin.

For your interest, we are Pushing Forward, '**LEG DRIVING**' more forcefully than our Hands are Firing which causes us to end up fully moved or turned through the Ball or Address and 'IMPACT FIX'. It is this more forceful 'Leg Drive than Hand Drive' that enables our getting finished Knees, Hips, Chest and Chin 'SQUARE' and tallish to the Target. The 'Lever Assemblies' do NOT produce any 'Horizontal Motion'. They are the exclusive 'Vertical Motion Generators' and accomplish the 'PINCH Compression' element.

Remember, 'Nature Is Generally Inherently Balanced'.

KEEPING THIS IN MIND:

This in mind, let me now 'Deliver a Decisive Blow to the Centre of your Golf Intellect'

**The 'LEGS & HIPS' Play A Greater Role In Driving
A Golf Ball Than Do The 'HANDS & ARMS'.**

(especially if you are a Swinger' v. 'Hitter')

'Clubhead Speed' is more of a 'Lower Body Machine' (LBM) responsibility (Round & Round, PIVOTING or ROTATIONAL Physics) than that of the 'Upper Body Machine' (UBM) whose responsibility is primarily 'Up & Down' ('Vertical Motion'). Remember that the 'Forward Horizontal Motion of the Clubhead' ('Push') is a 'Lower Body Machine' function. 'Down Force' ('Pinch') is that of the 'UBM'.

I am still dedicated to **'Live Educated Hands'** as was Ernest Jones, but their 'Liveliness' is that of 'Fine-Tuned Controlling Of The Clubface Aim' and NOT of the entire 'Swinging Motion Of The Golf Club'. The Hands Influence the PIVOT in that they 'Monitor Velocity' and thus 'Take Out The Clubhead LAG At The Precise Moment Of IMPACT & SEPARATION'. **'The Hips FIRE And LEAD While The Hands LAG And CATCH UP Centrifugally' and 'Centripedally' or 'Monitor Velocity'!**

'Clubshaft Plane' is controlled by the 'Hands and Lever Assembly', while Swing Plane is created and controlled by the 'Body Pivot' with its 'Dual Inclined & Tilted Axis', forward and aft, which are consistent from start to late in the finish as the Brace Foot releases the 'PIVOT Spinal Crankshaft Coil' powerfully around and Target Heel. This causes the Brace Heel's being pulled rotationally off the ground, up towards the Target showing your cleats to the crowd behind the tee-box ('Foot Release').

The 'Brace Side Turn and Coil' 'PIVOT' 'PUSHES' provides the lion's share of the 'POWER and Control'. The 'Target Side' responds to or 'Clears' out of the way of the advancing 'Power Or Brace Side'. The 'Live Hands', at the end of the 'Lever Assembly' with its **'THREE COCKED, LOADED and ARMED BRACE LEVER'**, 'Brace Shoulder, Brace Elbow and Brace Wrist', bring the 'Clubhead and Clubface Back to SQUARE and Take Out What We Call Clubhead Lag' to 'Extension of the Bent Brace Lever'. The 'Brace Lever Monitors Velocity and Lag' as it relates to the 'LEADING Lower Body Machine Engine'.

In a nut-shell, 'Clubhead Lag' is the reality of the Clubhead's being well behind the Hands during the forward swing. Leg-drive or the Lower Bodies moving forward starts and happens before the Hands actually reach their full 'Top of Back Swing' position. For this reason, you can see that the Clubhead gets way behind the lower body in the early forward swing. The 'Firing of the Three Loaded Levers' makes the 'Lagging Clubhead' somewhat **'Bull Whip'** and catch up very late in the Down Swing.

With all this motion underway, your Clubface smoothly and naturally **'RE-SQUARES To The Ball Flight Line'** through 'IMPACT' as your powerful driving legs and uncoiling body provides the raw horsepower. (see 'Parallel Thrust Lines')

So now you have a better picture as to my saying ...

**"The Brace Foot PUSHES Early And
The Brace Hand FIRES Late In The Forward Swing"**

... thus creating a 'Bull-Whipping FEELING of the Clubhead THROUGH the Butt of the Ball. The 'Brace Hand and Brace Shoulder Fires In The Lower Half Of The Swing Circle' where the 'Clubhead's Direction' is Positive or 'Advancing' and not 'Retreating or Moving Away From The Target'.

Remember, the 'Power Is Applied To The Ball Via The Entire Golfing Machine' in the 'Bottom Half Of The Swing Circle'. This is why your '555 TEAM' suggests that your '**Swing Early and Hit Late!**' This evolves from knowing that the 'LBM' moves early in the 'Down & Out Swing' while the 'UBM' acts or 'Does Work Later'.

Our non-action 'Trigger Words' '**Sweep & Ball Pin**' can be restated as an action words '**Sweep & Push and Fire Ball Pin**'.

15) **FORWARD SWING:**

If you start the downswing by subtly DROPPING your hands from the top of your Back Swing (T.O.B.) to waist level; by allowing 'GRAVITY' ('Newtonian Law') to begin the trip naturally falling right toward the deck, the 'Lever Assembly' ('Shoulders, Arms and Hands' plus the 'Golf Club') will start properly and without undue tension 'On Plane' and 'On Line or PATH', '**LAGGING Behind The Rotary Driving Lower Body Machine**', while somewhat retracing the 'Back Swing Plane and PATH', which knows precisely where the Ball was when it all started.

Your '**Navigator**' Hands will join in with the '**Captain**' Eyes, Upper and Lower Body Machines to produce maximum 'Clubhead Speed' on the correct 'Swing Plane' along the correct 'Clubhead Path' to get the job done decisively and automatically.

16) **PENDULUM SPEED:**

Remember the pendulum speed is 'ZERO' at the start-point and high point or 'T.O.B.' of the 'Swinging Motion'. (see 'Two Moments Of Low Inertia') The 'Golf Head' follows the natural 'Swinging Motion Law' so be a part of it. 'Enable' or 'Allow' it to smoothly happen without forcing the action and you will get better results. Feel

the 'Swinging Clubhead' through the bottom and ONLY assist in building its natural speed more with your 'Legs' than with your 'Hands'. **DON'T FORCE IT!** If you do so, you will interfere with the natural, '**On PLANE and PATH Swinging Motion**' and end up in the tank, making what I call a '**TOILET SHOT**'.

During this entire swing, your FEEL still knows where the ball is and with some smooth acceleration and delivery, (firing the Brace Side Lower Body and the Cocked Lever Assembly) your speeding Clubhead will arrive Squarely back at the 'IMPACT FIX Point', ('REPEAT the IMPACT FIX') snuggling up to the 'Butt Of The Ball' with some considerable authority and velocity. '**FEEL THROUGHNESS**!' Everything will seem to 'Flow Together'.

'See The Sweet-Spot'.

Tell me when this 'Clubface Spot' is closing to your nose. You remember this simple 'BULLET PROOF DRILL'? Right?

17) **SWING EVOLUTION:** (Segments Making The Whole)
 'The Sum Of The Parts In Motion'

i) Start the 'Down Swing' with 'Dropping Hands and Arms', letting them 'LAG BEHIND' your 'LEADING Lower Body' which is actually 'Running Away From Your Upper Body'.

ii) To start the 'Down Swing', let the hands drop gently. This initial move generates about '30 MPH Clubhead Speed', so you do not have to grunt to get some considerable speed building, readying to add more during Swing Segment #2F. (**PRE-IMPACT and IMPACT**) Remember this is the 'Bottom Half Of The Swing Circle' where the 'Clubhead' is actually advancing upon the Ball and Target'. In the 'Upper Half' it is retreating! Remember this!

iii) Dropping to the waist level and then catching up with the uncoiling of the loaded 'Lower Body Machine'. If your 'Hips' move too much or too quickly, (Spin Out) your 'Hands' will fall way behind ('Get Late') causing the ball to either be 'Pushed' ('Clubface AIM Open') to the 'Low Energy side of the Target Line' with slow hands or to be ('In Corrective Response') 'Pull-Hooked' to the 'High Energy Side' with a 'Fast Hands Fix'.

iv) Do not really 'Put on the Heat', apply the Power and

Torque to the Clubhead, until your hands are dropping under your 'Brace Hip'. If you FEEL that you are applying the Power smoothly when you FEEL your hands dropping below your Brace Armpit, you will accomplish the 'Clubhead Speed' later in the 'Swing Trip or Duration'. You will apply the heat closer to and through the 'Bottom of the Swing Circle'. Remember, Swings go '**Bottom-Top-Bottom**' and through the 'Butt of the Ball'. Delay the Hit!

Think 'Sweeping Back, LOW & SLOW, 'DEEP FLAT & WIDE', Floating Up, '&' (at the 'TOB', Target Shoulder contacting your 'Stable Tallish CHIN' - 'Coiled or Loaded')(see 'ALS DR'), 'Lever Assemblies Dropping Down', creating a 'Lever PIVOT Center' out of the 'Brace Elbow' moving towards the Brace Hip', 'Hands and Clubhead Firing', generally following the Outside of the '**CLUBHEAD CIRCLE PATH**' ('Extension and Circumference or Width') 'Hitting THROUGH the Backside of the Ball, 'Down The Line to and THROUGH the Target or PIN.'

- 18) **DEMONSTRATION EXERCISE:**
 (Get to the 'Top Of Your Back Swing')

 From there start by

RELEASING THE ABDOMINAL COIL - Lateral Bump (Slow Motion)

 The first muscles to get involved in the 'Forward Swing' are the first ones to get stretched out or loaded. The 'Coil' is completed bodily before the Lever Assemblies (Hands and Arms) reach their fullest extent of travel or 'Range Of Motion'.

DROPPING THE LEVER ASSEMBLIES - Gravity (Slow Motion)

 (Swing Segment #1F as gravity starts the speed generation commencing at Swing Sequence #5 to #6)

 And then by

ACCELERATION - Brace Leg Drive (Smoothly)

 Applying gradually increasing Brace Side PRESSURE
 (Swing Sequence #6 through #7)

 AND POWER in SWING SEGMENT #2F to and Through
 IMPACT Zone (Swing Sequence #7 to #8 & #8a)
 Chase

WHEN TO DO IT?

When to put on the squeeze, the hit, the heat? Most people have never considered this specific question or simply do not yet comprehend its critical importance in making good 'Naturally TIMED Golf Swings'. It's very important.

THE 'CLUBHEAD CLOSING' DEMONSTRATION EXERCISE:

(done by instructor)

The instructor, Set-Up, ADDRESS READY, 'Take-Away Back Swing' to T.O.B. or '#5 Swing Sequence Point'. Student standing on the TARGET LINE looking directly at the 'Sweet Spot' looking right down the barrel of the gun!

"Look at the Sweet-Spot during my Swing and tell me precisely when my Clubhead starts '**Closing On Your Nose**' (getting closer to your nose, my Target or Destination). While in its 'Circular Swinging Motion', 'Orbit or Clubhead Path', it is necessarily either getting closer or moving farther away from the Target."

Until the Clubhead starts travelling in a 'Positive Direction' (moving closer) as it relates to the TARGET - PIN, there is no purpose in applying Force-Power making it strongly travel obliquely away from the Target. This is the source, the headwaters, of the 'OUTSIDE IN SWING PATH' and its dreaded step-siblings, the 'PULL and the SLICE'.

The 'Outside-In PATH' with fast hands (closed clubface) produces the Pull while this same 'Clubhead Path' with slow or blocked hands (open clubface through IMPACT) yields the cut, that 'Oblique or Glancing Blow', imparting clockwise 'Spin Rate' on the Ball for right-handers and counter-clockwise for lefties, resulting in movement or 'Ball Flight Line' away, to the 'Low-ENERGY Side' of the 'Target-Line'.

FADE - SLICE.

The sequence of events is rather like this:

- 1) **RELEASE - IMPACT - B.O.S.A.:** (SS#7+, SS#8, SS#8+)

- 2) **DECELERATION - FOLLOW:** (power off) (SS#8a to #9)
(Clubshaft Horizontal)

- 3) **FINISH:** (SS#9 to SS#10) Relaxed, eyes focused on precise target.
(Target Lever Horizontal to Clubshaft Vertical or farther)

- 4) **T.O.F.** (SS#10) You can complete your swing stopped with the 'Lever Assembly' and golf club fully wrapped around your shoulders and behind your head; Golf Club behind your back.

I like Golfers who utilize the '**Bounce Back**' technique and get to '**Swing Sequence #11**' (Clubshaft returning back towards 'Horizontal' with very relaxed 'Lever Assemblies' and perhaps your 'Elbows on your Tummy'). It is very useful in proving your 'Clubhead PATH' and your 'Swing PLANE' having been correct. This 'Swing Sequence #11' is a very good 'FOLLOW-FINISH EVALUATION' manoeuver.

Swing Sequence #10 may not allow the Clubhead to travel quite as far behind your back, but to the '**Zero Energy State**' and then to 'Bounce Back' or return your Shoulders, Chest, Tummy and Hips to Square to the Target. Your hands should be relaxed right in front of your chest with the Clubhead at about eye-level and pointing directly at the flag. This finished position proves your 'Swing PATH' on the 'Forward Swing' has travelled through the correct, 'Down-the-Line' points. The 'Bouce Back' is a good check and a good finish for 'Evaluation'.

19) **BASICS ...NO MYSTERY:**

As you apply this you may well suddenly realize you are now actually doing what you had always merely thought you were doing.

First use of our system should be to understand your present game before you abandon, replace or scramble it. It may not be all that bad. At least it is familiar and working to a degree. Besides habits are harder to break than to reshuffle a little. The time you

generously spend with us may not only point out why you do not play better, but also give you an inkling as to why you play as well as you really do. This is the very primary next step on your lifelong journey to the next level.

Uncovering previously unknown elements of 'GOLF' simply mandated that terminology be adopted to express them.

Some of the resulting language that we use may seem quite technical but we will not allow it to remain mysterious. So do not turn away from us if you momentarily feel confused or that there is some complexity. This feeling will pass and the residual will become crystal clear, meaningful and rewarding. You will get comfortable fast. Incidentally, this is what we advise when you are 'In The Bush' but think you can see the pin. Possibly the wise move would be to strike the ball directly left back onto the fairway and go from there. It's often only one stroke to safety and when view as one in a wonderful round of seventy two, that's no problem. We will get you to the feeling of simplicity. Remember, complexity is far more acceptable and workable than mystery; less frustrating as well. **Come along with us!**

20) **EASY OR DIFFICULT?:**

Is 'Golf' an easy game or a difficult game? Well it is both. It is many things to its myriad participants.

It is a difficult game in that total consistent perfection is virtually unattainable because the Golf Stroke is fantastically complex and implacably demanding of 'Mechanical' precision, whether consciously or subconsciously applied. The Golf Swing seems to ruthlessly deviate in its results with every slightest stretching of balanced tolerances during application. It's 'fernickity!'

Fear not. Let us together journey down a path to comfortable, confident swing motion which will naturally overcome or help us traverse this path strewn with obstacle complexities. Golf is a game. The absolute objective of this game is to have FUN and nothing else will satisfy either our short or long-term objectives. Winning the Masters is most certainly FUN as is simply making one good shot. We really can do this 'One-Swing-At-A-Time' thing reliably. Join us. Come along for the journey!

21) **RELIABILITY OF NATURAL LAW:**

All the physical laws operating in the Golf Stroke, 'FORCE and MOTION', 'Geometry and Trigonometry', 'Materials and Structure', etc., etc., have been known since at least the time of Isaac Newton. His 'First Law of Motion' (the pendulum law) is directly applicable to the 'Swinging Motion', our '**555 GOLF CENTRAL REALITY**' in this 'Great Game Of Golf'.

22) **THE TWO SIDED LEVER ASSEMBLY:**

Target Leading Side & Dominant Brace Trailing Side

Pulling	Pushing or Driving
DRAG Link	PUSH Link
Front of Coil	Back of Coil
Secondary	PRIMARY

The Target Arm (Lever Assembly) is always 'Swinging The Club' from the Shoulder Socket, Hinge and Pivot Point. '**The Target Hand CONTROLS The CLUBHEAD**' or specifically '**The Clubface AIM and ALIGNMENT**'.

The Brace Forearm is always 'Driving or Hitting' more from the Elbow Pivot Point than from the Shoulder, especially through IMPACT Zone. The '**Brace Hand CONTROLS Or Takes Out The Clubhead Lag**' or '**Restores The Trailing Clubhead Toe to Square through IMPACT Zone**'.

Of great importance, 'We Must Understand That ONLY The Brace Side Of The Lever Assembly Is In A Position To PUSH or PISTON (Compression) The Combined Two-Sided Lever Assembly T H R O U G H IMPACT & SEPARATION Zone'.

Everything else in the Stroke Mechanics '**PULLS** Or Is In TENSION'. I have over the years developed a saying that I cannot over-emphasize in its purity and truth....

Let MECHANICS PRODUCE
and
Let FEEL REPRODUCE

You know by now,
'PLAY REMEMBERED FEEL GOLF'.

23) **THE BRACE OR HITTING ARM:**
(Half of the Co-Operative Lever Assemblies)

The mystery of the mechanics of the swing disappears when 'Brace Arm' participation is understood. Whether its participation is active or passive is sometimes difficult to detect visually because in either case the TARGET ARM is ALWAYS SWINGING (requiring a generally stable extended elbow to create the lever) and the brace forearm is ALWAYS DRIVING or performing the 'Piston or Force Motion in its Straightening Motion'. It is always a Target Arm Stroke unless the Brace Elbow replaces the Target Shoulder as the centre of the Clubhead Arc. One can create the hitting Pivot Point to become a tightly tucked-in or 'Hipped' Brace Elbow. I caution readers / students NOT to get overly obsessed with the Brace Elbow's pulling down to the Brace Hip to bring the clubhead through IMPACT and SEPARATION. This move is not natural and not beneficial to a smooth extended 'Swinging Motion' which is our general objective.

**Only The 'Brace Arm, Shoulder And Hand'
Are In Position To 'DYNAMICALLY PUSH'.**

**Every Other 'Lever Assembly Component'
In The Stroke 'DYNAMICALLY PULLS'.**

However, you will save yourself much anguish by using the 'Brace Hand' just for sensing and controlling Acceleration and the Target Hand just for sensing and controlling Alignments. Remember the Brace Hand Pressure Point (emphasis on the big knuckle and the index finger tip) controls the Clubhead (club toe) while the Target Hand controls the Clubface. At address you will find it of interest that the back of your Target Hand (the carpal bones) are generally aligned or parallel with the Clubface. Importantly, knowing this, you can always 'FEEL the Clubface Alignment' by simply knowing where the back of your Target Hand is facing or 'AIMING'. There is really no need to ever look at your Clubface after 'Set-Up'. It's right 'THERE'!

24) **RHYTHM AND 'CADENCE': 10 : 6**

The '555 GOLF TRIGGER WORD SEQUENCE '9 o'clock Sweep & See It' produces what we call the 10:6 cadence which is rhythmical and generates reliably accurate tempo. It take longer back and up (10 time units) than it does forward and down (6 time units). This imbalanced up and down beat is called 'Cadence'.

Keep It Simple! Why Does The 'Back Swing Take Longer Than The Front Or Down Swing? Because The Down Swing Is 'ACCELERATING'!

This 'Trigger Word Sequence' ('TWS') will cause your swing cadence, rhythm and tempo to be repetitive, reliable and Balanced. (the speed with which you say the words will control the swing of your Clubhead, just like a metronome) For the same reason a music student uses a metronome and orchestras have conductors, we develop a 'PACE and TEMPO' guideline to keep all the Golf parts on the same page. We want all the parts listening to the same music and singing the same words. If not, our performance will not come across to the audience as 'Music' but a less-than-pleasing cacophony with no return customers!

You should be comfortable that the club selection you have made will strike the Ball the required Distance 'Full Swing'. Full Swings cannot be made without a Full Trip, Bottom-Top-Bottom.

(a) In other words do not force the clubhead to do more work faster and unnaturally.

(b) In other words, if you are knowingly making a one mile

trip to the store to buy groceries, you will discover difficulty loading the store cart if you never get to the store in the first place.

(c) In other words, you cannot make a Full Swing with a Half Trip. So DO NOT try. You cannot make a good Forward Swing without a 'Completed back Swing'. It will force your clubhead Off-Line. The pendulum will have been forced off it's natural swinging path BY YOU, the very person who relies, and desires to keep it precisely On-Course in order to make that accurate strike to the heart of the green. Nonsense, to the heart of the cup!

An idea which may help you adopt this perception and philosophy:

**DO NOT START YOUR DOWN OR FORWARD SWING
ANY FASTER
THAN YOU STARTED YOUR BACK SWING.
('Take Away')**

('Two Moments Of Low Inertia')

In other words: **'SWING SLOWLY and then HIT HARD'**.

This concept will allow 'Gravity' or the 'Dropping' down of the Lever Assembly initially from the T.O.B. to start your Brace Elbow on a motion path that takes it relatively down toward the Brace Hip where it can properly participate in the creation of Power or Force that is embodied in Clubhead Speed with that so desirable 'Inside - Out Clubhead PATH'.

The 'Brace Elbow' initially drops toward the 'Brace Hip' in the early stages of forward swing. Having got there, it then 'Pivots' from the Brace Hip region. This enables the 'Brace Side of the Lever Assembly' to get into a position to act somewhat as a 'Piston or Driving Mechanism' to the 'Swinging Clubhead'.

Of course, this is all happening in 'Swing Segment #1F', the 'Dropping Segment' and through 'Swing Segment #2F' which is the 'Acceleration or Power Segment'.

25) **A TEACHING WISDOM:**

There is little excuse for forcing the average weekend golfer to adopt any procedure or '**STROKE PATTERN**' that calls for the elimination of a habit or tendency. It is far easier to develop a Stroke Pattern that properly compensates for it. Change the factors that are easily controlled to fit those that are difficult to change. Never ever 'Jack Up The Radiator Cap And Replace The Car' and DO NOT give any indication of this threat to your students as you will lose their trust and destroy any comfort that has cautiously been cultivated and grown between you to date. A little clinical suturing sounds a whole lot better than hospitalization and major surgery with dubious outcome.

26) **WORK SMART:**

Eons of man-hours are lost trying to substitute effort for technique and trying to eliminate effect instead of cause. There is some truth to the differentiation between 'Working Hard and Hardly Wrking'! Always Work Smart!

27) **A GENERALIZATION:**

We golfers must work diligently on proper 'MECHANICS' and make them a part of our regimen. As soon as possible, we must translate this to adopted and fine-tuned 'FEEL'. '**LET MECHANICS PRODUCE AND FELL REPRODUCE**'. Develop the 'Machine Feel' to where you can just turn it loose and trust it. Possibly view the Left Shoulder as a 'Hinge Arrangement' (not unlike a gate) and not as a shoulder at all. The Right Arm becomes a piston that pushes the clubhead through 'Square IMPACT' and through the Ball. Your Hands become 'Adjustable Clamps' with two way power actuators for 'Vertical and Rotational Manipulation' through '**WRIST POSITION AND ACTION**'. The 'Target Wrist' is merely a '**Horizontal Hinge-Pin**' allowing 'Wrist Cock but NO Wristbend' (**Vertical Hinge Pin**). The more of this translation or function a player can understand and accomplish the more meaningful, simplified and repeatable the 'Procedure' becomes.

CONTROL:

This 'HUMAN MACHINE' (a Homer Kelley, 'the Golfing Machine' term) has three functions to CONTROL:

- a) the **Clubshaft**
- b) the **Clubhead**
- c) the **Clubface**

'ALL' other elements of the 'Golf Stroke Design' are concerned with facilitating and implementing these three activities through creating and reproducing the FEEL. '**REMEMBERED FEEL**'

Three primary considerations are:

- a) the **Inclined Plane** (Clubshaft Control)
- b) the **Pressure Points** (Clubhead Control)
- c) the **Flat Target Wrist** (Clubface Control)

In every athletic activity, success seems to be unquestionably proportional to the player's sense of balance and force, whether innate or acquired. Off-balance force is notoriously erratic. A mechanical device has no balance problem but the 'Human Machine' does. Mastery of the 'Pivot Point' or 'Centre of Movement' ('Tallish CHIN' and keeping the 'Sternum Centred' during the MOTION) is essential for good Golf.

The 'Principles of Golf' are simple. Their applications become complicated if we allow them to become so.

The 'Principle of Golf' is 'Creating COMPRESSION and Controlling the LINE OF COMPRESSION'.

The 'Clubhead Only Travels In A Positive Direction In The Bottom Half Of The Circle' so don't make 'POWER and Speed', or get engaged in 'Compression and Line Of Compression' in the top half!

The 'Mechanics of Golf' is the 'PRODUCTION and MANIPULATION of the 'LINE OF COMPRESSION'. Precision comes out of the recognizing and reconciling of minute differentiations.

28) **CURRICULUM:**

We at the '555 Golf Academy' base our teaching curriculum on fact and even more powerfully and reliably on '**Newtonian Physical Laws**'. 'Force and Motion Vectors' comply with Newton's first three (3) LAWS which are:

i) '**LAW OF INERTIA**' 'There is no change in the motion of a body unless a resultant (outside) force is acting or acts upon it'.

ii) '**LAW OF FORCE and ACCELERATION**' 'Whenever a net (unbalanced) force acts on a body, it produces an acceleration in the direction of the force, an acceleration that is directly proportional to the force and inversely proportional to the mass of the body',

iii) '**LAW OF REACTING FORCES**' 'For every acting force there is a reacting force that is equal in magnitude but opposite in direction'. (resistance or movement)

29) **SETTING UP:**

Most missed shots are created at address by not mentally spelling out exactly the selected 'Stroke Variations' ('Componets & Procedures') and their technique and FEEL. Effective check-out procedures for both Practise and Play are:

- 1) the Practise Stroke
- 2) the Waggle (PIVOT Waggle preferred)
- 3) the Forward Press

VERIFY SIX (6) ALIGNMENTS:
(IMPACT FIX)

- 1) Clubface to Target Line
- 2) Grip to Clubface
- 3) Hands to Ball
- 4) Plane Angles
- 5) Pressure Points
- 6) Right Forearm Position

Practice Swing and Waggle should be over the top of the Ball to establish the Clubhead "Through-Path" (inside-out 'Angle of Approach'). Stopping at the Ball encourages Quitting, simply Hitting and not Swinging Through the backside of the Ball, along the 'Target Line' to the Pin to a nice tall relaxed, breathing-out 'FOLLOW-FINISH'.

This preparation must create the proper 'SWINGING FEEL' as a '**DRESS REHEARSAL**' to the soon-to-follow 'curtains-pulled, all lights up' performance. If we fail to trust in our script, our body and tools, the results may tragically simply be 'Lights out!' Don't despair as Golf offers continuous 'repeat performances' at your will and it is always forgiving and fully fair.

For more on this Routine aspect of our 'Swing Procedures', please see the Chapter on 'ROUTINE'.

30) **CLUBHEAD LAG:**

This, along with 'The Hands Get To The Ball Before The Clubhead', is the 'Secret of Golf'. It is simple, elusive, indispensable, without substitute or compensation and always present. It can be any one or any combination of Pressure Points, selected to sense Clubhead Acceleration rate and direction, but herein, unless otherwise specified, always refers to Pressure Point #3, the first joint of the Right Hand index finger where it touches the Clubshaft / Grip. Clubhead Lag is like having a full or open Parachute tied to our Clubhead making it FEEL like 'Dragging a WET MOP' through the Ball.

This point in our discussion is about those central '**Dead Hands That Are Alive**' about which I so often speak. It is this vital 'Hand Work' that makes 'Clubhead Speed and Control' a possibility and, Yes, a reality.

The more you can get your Hands reasonably ahead of the Clubhead in the down or 'Forward Swing', the more Power you can generate and apply to the Ball with the 'Brace or Hitting Hand'.

The late 'Uncocking of the Wrists', or the delayed hit, as you have heard me call it, instinctively causes a decided exceptionally positive acceleration of the 'Brace Hand Action' at the most effective time toward the conclusion of 'SEGMENT TWO FORWARD' (2F).

You do not have to think about the 'Brace Hand' NOT coming along in time to 'Whip The Ball' with a little controlled violence, it will get there and through spontaneously, guided and triggered by your 'Captain EYES'.

If you will take a moment to consider this IMPACT event, you will realize that if your Hands are 'BEHIND The Ball At IMPACT', you can ONLY scoop the Ball up into the air. If your hands are 'IN FRONT or LEADING The Clubhead Through IMPACT', you can fire those hands with lightning speed and smash the Ball. Remember Arm and Hand Speed (Lever Speed) generates Acceleration atop the fast Rotating Pivot which creates Clubhead Speed. ('Taking The LAG Out')

When you Golf, get into a real attitude of taking your 'Magic Hands' along for their 'Support And RPM Control'! Having done so, put them or allow them to work hard at the right time and your smiles will speak volumes.

31) CLUBHEAD LAG PRESSURE:

This is the 'FEELING of Pressure In Your Brace Hand' ('Pressure Point #2'), especially the 'Brace Index Finger' ('Pressure Point #3') and Thumb, the '**Working Pincher Fingers**' (vs '**Helping or Holding Fingers**'), that contribute so forcefully to restoring the late Clubhead (LAGGING) to catch up or get back to the IMPACT FIX POSITION at the same time as the Body's uncoiling Motion toward IMPACT, and the Target, actually gets there.

This is 'The FEELING Of The Live Hands' working to get the slow or following 'Clubhead To The Ball' at the same precise moment as the Body gets there. ('Timing and RPM')

Remember the 'Dragster Analogy' where the faster has a later 'Green Light' than the slower....the handicap or adjusted start? Well the slower Lower Body Mchine ('Belly Button Down') gets the early start and the faster small-muscled Hands and Lever Assembly (Upper Body Machine, Belly Button Up) get the delayed 'Green Light'. Sounds 'Fair and Physically Effective' to this old Golf teacher.

'**TURN EARLY** (ROTATION or PIVOVT, Brace Toe Pressure, Brace Foot PreLoad and Brace Leg Drive) **and HIT LATE**' (Hands Taking out the Clubhead LAG) which may produce a slight 'Whipping FEELING' but I DO NOT want you to get at all 'HANDSY'. This is just about smooth 'Down Force or Un-Cocking' only.

'FEEL Like The Pure POWER And Primary MOTIVE FORCE Comes Out Of Your Brace Foot Leg Drive', 'FROM THE GROUND UP' and NOT from your 'Upper Body Machine' down to the Ground.

Hope this sounds fair and 'Physically Effective' to you too.

32) **THRUST DIRECTION - PIVOT PRESSURE:**

To strike a Golf Ball skyward we must strike circularly down on it. We must Swing our Clubhead below a 'Tallish CHIN FEELING Down and Deep in our Hands'.

Try to drive the ball into the ground, NOT into the air. There should be no **'Lifting Moment or FEELING In Your IMPACT Zone'**. The only aspect of Golf that produces 'Trajectory is LOFT' and the factory supplies all of that, not you.

If you don't KNOW that you hit down and through the Ball, assume that you didn't.

You must have **'PARALLEL THRUST LINES'** in order to produce efficient 'Clubhead Speed, Compression and Line Of Compression'. These two 'Thrust Lines' are comprised of the 'Line Of Your Brace Forearm' and the 'Line of Your Brace Lower Leg' being at least somewhat parallel to the 'Target, Body or Ball Flight Lines' through the 'IMPACT & SEPARTION Zone' all the way to 'Chase-Follow' (Swing Sequence 8+ to 9). Under any other conditon or combination, your desired 'Ball Flight' will only be a desire!

33) **DELIVERY PATH:**

I want to tell you right here and now that the 'Primary Hand Path' taken from the 'Top Of Back Swing' to the 'Butt Of The Ball' feels to be generally a 'Straight Line Direct Route' with a little curve at the top and bottom f this event or 'Motion', I like to ask them if they have ever started a chain saw? If the answer is yes, they will know the general feeling for proper 'Hand Path'. Go ahead and try it right now! Pretend the saw is sitting on the ground and you give it a big strong full-length pull, deliberately replacing the hande back to he machine.

Regardless, the Hands must ALWAYS take one of the 'Hand Delivery Paths';

- 1) Straight Line, (to the Ball) 'HITTER'
- 2) Angled Line,
- 3) Top Arc and Straight Line,
- 4) Top Arc and Angled Line, and
- 5) Circle Route - no straight line attempted)

'SWINGER'

but even with the Circle Path, the Thrust is still a straight-line EFFORT toward the Aiming Point or Pin / Target. (not up-hill). I always FEEL like I am 'Swinging DOWN & THRU or FLAT' through the Golf Ball, during which the Clubface must be square to the Target Line at IMPACT with a flat swing arm wrist so as to avoid 'Clubhead Throw Away'. Remember, your Hands MUST LEAD the Clubhead to and through 'IMPACT & SEPARATION'.

This 'DEEP & FLAT FEELING' is what I call 'ONE DIMENSIONAL GOLF'.



Hand Delivery Path
From TOB (SS#5) DIRECTLY SWEET
SPOT TO THE BOTTON INSIDE CHEEK (BIC
'BALLISTIC POINT'



Swing Sequence #6,
Brace Hand progressing directly To 'Ballistic Point' (BIC)



Swing Sequence #7, Pre-Impact
Heel Brace Hand progressing directly to 'BIC'
Vertical Line, Steep Angle Of Attack



Swing Sequence #8a, Impact Chase
Heel Pad of Brace hand has progressed to the 'BIC'
Chasing past 'Impact'

34) **HAND MOTION:**
 more on those 'Navigator Hands'

All motion is focused on driving the HANDS, NOT THE CLUB, toward the BALL. ('**HAND DELIVERY PATH**') This may, with habit, seem to become reversed. But this is where and how a player's game 'comes apart'. The cure is to return to the original primary concern, the HANDS and their Clubhead Lag, 'Flat Left Wrist' and 'Plane Line Control'. Educated hands can compensate for 'Off Line Hip and Shoulder Motion' but only up to a point. 'Off Plane Clubhead Throwaway' is even a 'Prevalent Putting and Chipping Fault'. It amounts to an unintentional 'Plane Line Shift' and causes direction control to become vague. '**Learn To Strike The Ball With HAND-ARM ACTION Rather Than With Clubhead Manipulation**'.

35) **POWER AND FINESSE:**
 (ANECDOTE, True Story)

There is a young acquaintance of mine, whose shyness and personal request yields me to 'Anonymity'.

I think this young athlete could, commitments and priorities being different than they now are, (he has a rapidly growing family to feed) play 'ON TOUR'.

Power is one thing. Finesse and reliability is another. This young man has both.

Often I have had the pleasure of watching him strike balls. He makes chills run down my spine.

One day at an British Columbia, Canada, Southern Interior Okanagan golf course and driving range called Kelowna Springs, I provided him with several custom tuned drivers to try. He took some time to swing and warm up. Once this was done, without any to-do, he moved to the very back-left side of the driving range, on the grass and teed a ball up. He was aimed over the very far-right range net pole that reached some 90 feet into the air. The range was a measured 260 yards so I would estimate the diagonal ground distance to have been approximately 300 yards.

No delay, he turned fully to load or coil and fired this machine, clubhead-connected, directly through the backside of the ball. It

made a very distinctive 'THUD' sound, like a sledge-hammer hitting a solid piece of maple, and the ball departed with 'Authority'! I was briefly concerned about the 'Ball Flight' as its 'Trajectory' was very flat. Indeed, it was no higher off the deck than ten to twelve feet at well over a hundred yards. Then, lo and behold, it pitched-up and started to ascend, much like a old '**63 Series DC-8**', slowly but steadily. As it went ten feet over the very top of the net, 20 feet right of the corner pole, still almost a hundred feet in the air, those chills I mentioned were ice cold! This Striker commented; "Pushed it! I was aiming right at the corner pole." So he reloaded and recoiled his personal machine. Machine suits this athlete more than just the ordinary term 'Body'.

The next crushing shot, similar in 'FLIGHT PLAN', still climbing streaked just two or three feet to the right and above the corner pole. The young man spoke softly, "**That's better!**" His continued bombardment and brutalizing of golf balls was cut short when one of the course management team came over and told us he "**Heard that last ball hit the steel-clad neighbouring warehouse, one bounce, just to the left of the parking lot, which, incidentally, is full of employee and customer cars!**" You see, this manager was a proficient golfer himself and was very familiar with the performance quality of this young gladiator.

I was truly amazed and left very humbled.

I have watched several more events such as this performed by the same machine. It never gets old! One warm summer morning, he and I went out on the course to get in eighteen. The sixth hole was 365 yards straight-away over a substantial, but narrow lake that guarded the green. I hit a solid driver that rolled to within an easy wedge. My friend stepped onto the tee-box, driver in hand and took a few warm-up swings. He was already warmed up! This was disciplined routine.

He paused and gazed meaningfully down the fairway to the barely visible flag, then stepped back to his bag and pulled his three-wood. He repeated his routine, looking ready, but again stepped back with a slightly frustrated grunt and reselected his Driver.

"Make up your mind!" he muttered to himself.

The coiled giant machine smoothly started the powerful down and forward swing, crushing yet another defenceless ball. You could hear it 'Sizzle' as it left the launching pad, like a CRUISE

MISSILE off a carrier deck, dead straight at the flag.

"DAMN. Should have stayed with my three wood".

The ball sailed the green and landed, embedded, in the large bunker at the back of the putting-surface. I am certain that this bunker was made for 'Approach Shots' and not 'Tee-Shots'. Do you think?

My associate splashed on and parred the hole. I was not surprised. I was continually impressed. Amazing is an understatement! The only people I have ever seen launch a ball like that, reliably, are the likes of John Daly, Kirby Romans, Kelly Murray, Jason Zubeck, Richard Humphreys and Jack Hamm.

Just thought I might share this moment with you as we progress into this 'GOLF....Solving the Complexity Myth'. This is truly '**POWER and FINESSE**'.

36) **WHY NOT ON THE PGA TOUR?:**

The 'Hallowed TOUR Environment' is brutal, lonely and extremely demanding and expensive. It is a rare, very orderly-minded individual like Bruce Lietzke, who can treat GOLF successfully as a hobby, a means to more fishing and time with his grandchildren. All leading money and stats heroes are committed, disciplined and dedicated to schedules and formulas that demand practice and performance.

This monumental strike chose a wife, children, a home and a steady job as a priority. His commitment was right simply because he made it and meant it!

In my quiet moments, I envision my amazing young friend humbly, as he usually is, accepting a major trophy.

37) **IN A NUT SHELL:**

The Forward Swing with three chapters on 'Motion' and some basic 'Physics and Mechanics' which should enable to play both 'Geometry and FEEL' so our swings withstand the tests of real course pressure.

38) **JUST A FEW MORE COMMENTS:**

THE FORWARD SWING:

Down Out Forward & Through
(DOFT)

The proper Set-Up Check List and Routine or Sequence must have been followed and accomplished in comfort. In order to perform a smooth physical action in Balance and with Rhythm combined with Power and Consistency, one must start from a position that makes it possible. The Tallish Chin which naturally sets your spinal 'Crankshaft' in a working position is strongly suggested. Remember those powerful Shoulders are on top of this Spine and everything from your Head to your Feet are involved in a very positive 'Rotating Action' that absolutely relies on physical or mechanical advantage to make the '**Coiling and Un-Coiling**' a reality.

We have taken the Clubhead away from the Ball and moved it 'Low Energy' Low and Slow (**'Click the Penny' FEELING Deep, Flat and Wide**) backwards from the butt of the Ball following a nice big 'Extended Arm' circular Clubhead Path, letting the Feet, Hips, Torso, Shoulders and the Lever Assembly ('Arms, Hands and Golf Club') complete the coiling process.

You have 'Wound Up the Body Rubber Band' (see 'Balsa Airplane') and it is ready to do some work. You are at 'TOBS', the 'Brace Hip Load Point' can be positively felt, your 'Target Shoulder' is in contact with your slightly set back 'Tallish CHIN' and your 'Wrists Are Cocked'. The gun is loaded and aimed.

The Trigger is gently pulled but it ONLY lights the fuse. The initial Trigger does not fire the charge.

The 'Forward or Down Swing', especially for your driver or longer clubs, is initiated by a 'Dropping Action of the Lever Assembly' and is not a forced downward action. Let Gravity do the first work. It requires not muscular fuel!

During this early phase your 'Target Heel' may be planted if you have Coiled enough to pull it slightly free of the ground. Then your work or the 'Uncoiling' starts from the pushing Brace Foot, powers up your Brace Leg to your Brace Hip which is naturally uncoiling and now being 'Pushed' by the Brace Foot. I like to think and FEEL that my Target is firing forward and turning to 'CLEAR' the way for my trailing but firing Brace Hip.

This powerful leg driven 'Uncoiling' naturally forces my Torso to likewise unwind which means my Coiled Shoulders are also 'Uncoiling', almost as the Hips; 'Target Shoulder' leading and clearing with the 'Brace Shoulder' moving comfortably forward under the still 'Tallish CHIN' and toward the 'Target Line'.

If your entire body is 'Uncoiling' FEET, HIPS, TORSO, SHOULDERS' then naturally the 'ARMS, HANDS and Clubhead' must follow as the tip of the 'Bull Whip' must follow the handle and body of the whip. When the Hands, and the 'Golf Club' which is absolutely controlled by them, cause the Clubhead to approach the 'IMPACT ZONE' below your Hips and forward, I FEEL like my '**COCKED BRACE SHOULDER, ELBOW and BRACE WRIST**' ('Three Lever, Single Action') fire in smooth sequence ending in my 'Brace Hand's Whipping the Clubhead powerfully but very smoothly T H R O U G H the Butt', 'Bottom Inside Cheek' of the patiently waiting Ball.

The 'Powerful Brace Foot' at no time during this forward movement (Segment #1F, #2F & #3F) disengages. '**Its Motion Target Is The Target**'! Like an automotive clutch it must be 'CONNECTED' and fully involved in the physical 'Drive Line' right 'THROUGH IMPACT & SEPARATION'. If not you will have '**Clubhead Throw Away**' ('Hands Passing Hips' and 'Flip Action') and a whole host of bad things will unavoidably take place. Keep 'Driving THROUGH The Ball' until you FEEL it has completely departed the Clubface and is very positively on it's way dead at the Target.

When your 'Stored PIVOT Pressure' ('Potential Energy') is fully 'Delivered and Released' ('Kinetic Energy') your Brace Foot will then automatically cease providing POWER or it will, as we GOLF practitioners call it, '**RELEASE**' causing the Clubhead to likewise '**RELEASE**' and re-assume the 'Zero Energy or Spent State' as it was in the entire Back and Up Swing from 'IMPACT FIX' to the 'T.O.B.'

Where and how do I absolutely complete my forward swing? Simply by making sure your Brace Foot Push has ended and you have 'Breathed Out and Fully Relax'. Do not force the Clubhead into any predetermined position and, if you have swung it 'Down The Line' ('DTL') ('DOFT') at the Target, feeling 'Stick The Toe In The Tree' and 'Split It In Half', when it all this 'Golfing Machine' unwinds, your Clubhead and everything attached to it will be in precisely the correct place at exactly the right time and sequence.

Remember, always '**FEEL The STEEL**' and know precisely where your Swinging Clubhead is at every instant of your entire swing,

backwards and forward.

I cannot over emphasize that one must intimately know where three things are in Golf the 'Slinging Clubhead', the 'Stationery Ball' and the 'Target - Pin - Quarter'.

Every swing is '**BALL - PIN**' whether it is the biggest of big drives or the smallest of small Putts. (see '2 Point Golf' and 'Connecting The Dots')

Remember as well, that all 'Golf Swings' are just varying lengths of 'Putting Strokes' with different 'Tools'. At the bottom of every stroke is an 'IMPACT & SEPARATION Zone' that is just a 'Putting Function' ... 'Straight Through With The Clubface Square to the Target Line at Separation!' 'Compression and Line of Compression'!

IMPACT & SEPARATION ZONE:

In this vein, the 'IMPACT & SEPARATION Zone' of this 'Biggest of Bigs or the Smallest of Smalls' are close to being precisely the same. Again, '**Putts and Drives have very similar 'IMPACT & SEPARATION Zones' and inherent 'Component Conditions' (see '5 ESSENTIAL ELEMENTS')**'. 'Clubface SQUARE and essentially MOVING directly Down the Target Line or PATH' or slightly to the 'Outside' at 'Separation' (that is when the Ball leaves the Clubface).

Subtly, the '**Full Swing is D.O.F.T.**' while the shortish 'Putting Action' may be and best be '**Straight Back and Straight Through**'. It is often 'Inside Square Inside' which certainly is very reliable, especially in longer 'Stroked Putts'. I think we get a little 'Inside' in the 'Back Swing' once we are making 'Putts or Stroke Lengths' that exceed about five inches depending on the 'Mechanics' we 'Pre-Select'. At ten inches we will be on an 'Inside PATH' unless we have a 'Manipulated Stroke Procedure'. Those 'Components and Procedures' again.

Always!

REMEMBERED FEEL:

I am here generally addressing our '**REMEMBERED FEEL**' to which I absolutely entrust my motion and results. When your **CONTROLS**' are in place and disciplined, you can make it happen under the most adverse of conditions and under the greatest pressure.

Your Conscious Mind assesses and prepares. Your Sub-Conscious executes. Then, when 'Clubhead Release, Breathing Out, Follow and Finish' are completed your Conscious Minds receives the 'Hand Off' from the SubConscious so that it might assess again the wonder to behold...that 'Ball On A Rope Dead At The Stick' as we envisioned through our confident 'Set-Up'.

I know you can arrive at this place, this ZONE. It will be with some diligence, some hard work and some trials, but 'YOU CAN and WILL ARRIVE! The company you will find there is well worth the trip or journey as I like to think of it.

Every single step has it's place and is an investment. Keep investing and having fun.

See now you're there! Please read the last section one more time. I want you to both 'SEE and FEEL' the Swing Sequence over the next several pages, especially before reading the 'soon-to-follow' Tiger Woods segment.

39) **FINAL COMMENT:**

When you are tuned into this topic of 'Physics & Mechanics', quiet or noisy times, always keep the 'Tether Ball Pole' image in clear mind. With this device as an example or model, you can realize logic. The human body has a few more 'Articulating Joints and Angles' to deal with, but the 'Round & Round' and 'Up & Down' remain valuable. Always factor the 'Length Of Elements or Components' along with their 'Lines'. They change as well.

The 'Ankles, Knees, Hips and Spine' can either bend or curve. This affects 'Planes'. The 'Shoulder Joint, Elbows and Wrists' are also variables, but you can manage these adjustable 'Components' with a little imagination.

Never forget the 'Lower Body Machine, Round & Round' and the 'Upper Body Machine, Up & Down'.

Remember the concept of 'RPM and TIMING'. It is key!

Keep your focus on smooth optimized 'Pressures and Forces'.

That will pay dividends.

C3]

ACCELERATION & DECELERATION

By now we know that all strokes are best served by '**Accelerating The Clubhead Through The Ball**' on the way to the 'Target'.

Consider a perfectly level medium length 'Putt'.

Let make a few assumptions.

- 1) The 'Mental State' is in order!
- 2) The 'Pre-Shot Routine' has been accomplished.
- 3) The '5 Essential Elements' are all in play.
- 4) The 'Clubface AIM' is properly 'SET-UP'.
- 5) The 'Body Matches The Clubface AIM' and not the reverse where the 'Clubface' might match the Body Alignment'.
- 6) The 'Stroke' is properly 'EXECUTED'.

Then, with a proper '**One Piece, Triangular Lever Take-Away and Forward Motion**', the Ball should roll 'Dead straight'.

The 'Rocking Chair Shoulders' produce the 'Power' or provide the 'Energy'. Your '555 TEAM' defines this 'Stroke' as a 'Brace Hand Back and Brace Shoulder Through Motion'. ('**Secondary Upper Body Machine Golf Engine**' <'UBM'> Is Your Brace Shoulder Up & Down Motion ... the '**Primary Is Your Lower Body Machine Pivot**' <'LBM'>)
This 'Physics' moves the 'Triangle' in its 'One Piece'.

When you are 'Triangular', if any part of the 'Triangle' moves, including the 'Clubhead', all parts move in unison. This 'Mechanics' is 'Bullet-Proof'!

When all parts move in unison, 'Acceleration' is 'UNIFORM' and the 'Clubface AIM' is stable and reliable! Then there is no 'Hands and Wrists Flipping Motion'. Your results can be 'Predictable'!

'ALL PUTTS ARE DEAD STRAIGHT!'

When you '**Over-Accelerate**' you likely cause the 'Clubface To Open' slightly and thus miss to the 'Low Energy Side Of The Target Line'.

Similarly, when you **'Under-Accelerate or Decelerate'** your 'Clubface AIM' will shut down slightly due to the 'Inertial Mass Of The Clubhead's Passing The Hands or The Rest Of The Lever Triangles'. Physics makes the 'Clubface AIM and Clubhead PATH' pull to the 'High Energy Side Of The Target Line'.

If you can visualize the 'Clubhead Mass' being at the end of a string attached to your 'Target Shoulder', just like a 'Tether Ball' at the end of the rope attached to the top of the pole, if the 'Rotational Energy' ceases, the Tether Ball goes round and round the pole and the length of the rope progressively shortens. There is **'Angular Momentum Natural Physics'** ('A=LR') in play.

When your 'Putting Stroke', 'Secondary Engine Energy Source', shuts off prematurely to 'Natural IMPACT & SEPARATION', the 'Clubhead Mass and Inertia' tends to 'Pull or Track' to the 'High Energy Side Of The Target Line'.

The hoped-for 'Dead Straight Ball Rolling Path or Line' ('BRP' or 'BRL') is altered. The 'Stroke Mechanics' is compromised.

Your hopes and aspirations are lightly dashed upon the shore of the links dance floor. That is OK!

'Appreciate The Moment', 'Learn From It', 'Record The Good Stuff and Push The Delete Button For The Rest', 'Embrace Your Outcome', 'Evaluate' and then shift gears to the next stage of your 'Four Step Routine'. **'Re-Energize'** and head off to the next challenge we know as yet another 'Single Stroke' on one hole that ultimately makes up a full eighteen!

We never get to the '19th Hole' until all the preceding holes are traversed! Never worry about this hole until every shot is executed 'One Shot At A Time'!

'Inch By Inch, It's A Cinch'.

Keep your 'Clubhead Accelerating'!

By the way, the relationship of the 'Clubhead To Your Hips and Sternum' ('RPM'), 'Acceleration & Deceleration', 'Pulling & Pushing', is as relevant in the 'Long Game' as in the 'Short Game'. When the 'Engine Shuts Off' and the 'Body Slows Down', the Clubhead usually 'Passes' and moves to the 'High Energy Side Of The Target Line'! Stay aware! Enjoy the Journey!

C4]

Master the
TWO MOMENTS OF LOW INERTIA
('Transition Zones or Intervals')

I know I have mentioned this topic before and, I can assure you I will likely do so again in the not too far distant future, but I right now want to address it again simply and quickly.

If you 'Get It', you will be well-served.

If you don't get it right away, think about it some more a little later when you have an 'Honest Fresh Outlook and Open Clear Mind' linked with 'Desire'.

It is my job to serve you well so that you might undertake the duty very shortly, in fact, more and more every day in your 'Golf Life'!

Now there's a task YOU and I can accomplish.

We have been doing it for quite some time already, haven't we?
... we're LEARNING !

1) **A LITTLE SIMPLE LOGIC & SCIENCE:**

If you know what a '**Gyroscope**' is, you know that balancing it on one of its axes when it is NOT spinning, is nearly or quite impossible. When it is spinning it will balance and stand up as long as it is spinning at a sufficient '**RPM**' to produce 'Gyroscopic Stability'.

I think this is relevant and true about the human body. Especially when we are standing quite erect with our feet relatively narrow in 'STANCE', we are quite vulnerable to tipping over or 'Coming To A State Of Imbalance' where we might topple or have to take a step in order to keep from falling over. When we are 'In Motion', even quite slowly so, we are more stable. We are 'Dynamic' rather than 'Static'. **This gives us 'Inertia' and 'Spatial Stability'.**

If you want to test this reality stand very tall with your Heels touching and your Hands down by your side, fingers extended towards the floor just outside your Feet. Now close your EYES and count to

ten. You will FEEL vulnerable and unstable.

Additionally, have a friend stand near you (not knowing 'Where' as your EYES are closed, and without your knowing 'When', have this person give you a 'gentle nudge' in the 'Upper Body Machine' region. You will not withstand a very big 'Force' before coming 'Out Of Balance', likely to a significant degree, forcing you to open your 'EYES' and take a step to recover your 'Balance'. Your were NOT very stable in this 'EYES-Closed, Narrow-STANCED Physical State'.

So now you know what the '**State Of Low Inertia**' is and means. We always naturally seek '**Dynamic, Gyroscopic Balance**', so when you take the step and get 'In Motion', you recover quite easily from any 'Imbalance' and get '**Dynamically Balanced**'. The absolute direct key roll of this process is '**Visual Senses**'.

WHAT IS AN 'INTERVAL OF LOW INERTIA'?

2) LET'S RELATE THIS TO GOLF:

- a) The '**FIRST INTERVAL OF LOW INERTIA**' ('Transition Zone') is from 'Swing Sequence #1 to #2 and even #3' or the '**First Five Inches of the Take-Away**', to the position when the Club Shaft becomes horizontal or parallel to the ground, when we are at rest and 'Transitioning Into MOTION'. We are delicate in this 'Time Interval'. We are accelerating or adding Energy to the once 'Motionless Clubhead' and getting it into 'Orbit'. The 'First Brief But Busy Intervals' of a space shuttle launch are delicate indeed. Small errors can have manifold consequences. Stability and control of Energy is of paramount importance.

Between 'Address Ready' (Swing Sequence #1a) and the point in the 'Back Swing' when your Target Lever comes to the 07:00 o'clock position (see 'Body Clocking') with the Clubshaft horizontal or level to the ground (see 'Swing Sequences'), any instability and error in 'Orbit' creates significant 'PATH and PLANE' variables.

If your Transition from 'Static' to 'Active', becoming 'In Motion', is 'Smooth, Extended in the Levers, Low & Slow,

FEELING Deep Flat and Wide', with the correct 'Forward Inclination and the Proper Aft Tilt' spinal support and 'Inside Out Clubhead PATH' and PIVOT / ROTATION about your Spine, you will produce an 'Orbiting Clubhead' that will, on the return voyage pass through the 'Stationery Ball' transferring Energy to it and making it 'Go Away' to a precise location afar!

If you can SET-UP properly and make this Take-Away in the correct manner, ROUTINE, you are well on your way to a Powerful, Stress-Free Golf Swing that repeats itself and make you a 'Happy Chaser of the Little White Ball with the Stick' while walking in the park!

- b) The '**SECOND INTERVAL OF LOW INERTIA**' ('Transition Zone') is from the '**Top Of Back Swing**' (TOB), Swing Sequence #5, to Swing Sequence #6a ('Bump') & #6b ('Target Lever Horizontal') and on to the 'Pre-IMPACT Position'. During this process the Target Lever or Arm comes from the 'T.O.B.' dropping down to a position of being horizontal or parallel to the ground and then getting the 'Club Shaft' horizontal again as it was on the 'Back Swing' or 'On The Way Up'. Very simply the reverse 'Motion' but with 'Applied Pivot Pressure' in the 'Front Swing'. In the 'Back Swing' 'PIVOT Pressure' is being 'Accumulated' as in a spring. In the 'Front Swing', again as in a spring, it is being 'Delivered or Released'. (see 'ALSDR', 'Power Delivery Sequence')

At the T.O.B. the 'Clubhead Inertia or Speed' (Energy) is ZERO. The Clubhead comes to rest when it stops to change Direction. The circular Direction Change scientifically requires the Mass to come to a halt, even if it is momentary.

The 'First Five Inches of the Front or Down Swing' (see 'Bump' or 'Lateral Bump'), simply a 'Dropping of the two Lever Assemblies' while the stretched abdominal muscles are releasing their 'Coil or Stretch', automatically coming out of 'TENSION' ('Shortening') back to a 'State of TONUS or Relaxation' which causes a 'Forward MOTION' in the Hips and Lower Body Machine' against the 'Brace' ('Earth's Resistance'), is this 'Second Interval or Moment of Low Inertia'. Starting into Motion is always accomplished in 'Slow Motion' and from a dead stop!

- c) There is actually a 'THIRD MOMENT OF LOW INERTIA' as well. It is when or where the 'Front Swing' comes to absolute rest and is spent. (see 'Swing Sequence #10 and #11)

**You must more 'Let This Golf Swing Happen'
than 'Make It Happen'.**

If you force the process, you will very likely cause the 'Positioned Clubhead at T.O.B.' with its 'Potential ENERGY' ('Raised Up-ness') to immediately get out of 'Orbit'. It is closely true that the 'Clubhead PATH' the was travelled on the way Up will be followed on the way Down, if you 'Do NOT Interrupt the Motion'. We discuss the fine details of the 'Back & UP Swing PLANE' as compared with the 'DOWN, OUT & Forward Swing PLANE' at other locations in your book.

Once you have 'Transitioned' from T.O.B. by gravitationally dropping from Swing Sequence #5 to #6a and #6b, while you are 'PUSHING' with the 'PreLoaded Brace Toe and Brace Leg' which propels your Lower Body Machine in its 'Level Hipped and Shouldered Rotation Forward', bringing your Upper Body Machine, the Lever Assemblies along for the 'Lagging Ride', you will be very pleased with the results. Good Clubhead Speed which is ON PLANE, IN ORBIT and passes through the patiently awaiting Ball which briskly goes away 'Down the Line to the Target'.

A word of warning to you is, while this transition, dropping from Swing Sequence #5 to #6a and #6b is 'smooth and effortless', the application of 'Push or POWER' by the Brace Toe and Brace Leg must be about equally as 'Smooth yet Effortful'. You must NOT be 'Jerky or Mouse-Trappy' in this application of Power or you will also force your Clubhead out of Orbit. Do NOT FEEL either 'Quick or Abrupt'. FEEL like your muscles more 'Squeeze Than Snap'. FEEL Soft in your Take-Away and Smooth in your 'Power Delivery Sequence'.

I can tell you this is 'Good Advice'.

How simple can it be?

... **GUARANTEED!**

Personally, I would dedicate some quality time to this area of your Golf Game! as much as it takes to get this right!

Some '**KEY WORD PHRASES**' or thoughts that will serve you well in the Take-Away are

- LOW & SLOW
- DEEP, FLAT & WIDE
- Soft Back & Smooth Forward
- Sweep & '**See It**' PIN
- Sweep & '**Turn**' PIN
- Sweep & '**Push**' PIN
- Sweep & '**Pinch**' PIN
- The '**4 Bs**'
- The '**4 Ps**'

Which of these you might employ, and you may design your own but 'Keep It Simple', depends on your needs. If you are not 'Seeing the Ball Come Off the Clubface' and thus striking the Ball THIN, you might be well-served to use the '**See It**' version. If you are not 'Pivoting /Rotating' off your Brace Foot and Side adequately, you might benefit from the '**Turn**' version.

Remember these '**KEY WORDS**' are designed to be '**SINGLE-WORDED**' in nature and are not phrases or certainly NOT short sentences. The 'Golf Swing' is not a 'Long Intevalued Affair'! No Time for dialogue; ONLY Small Talk; very Small Talk. Get down to the 'Short Strokes (or Long if you have selected the Long Irons, Fairway Woods or Driver). Don't put any onstacles in your way. Verbs are obstacles.

These 'KEY WORDS' serve the purpose of keeping ones mind off the past hole or shot as well. We cannot look back in this adventure know as Golf. '**Live In The Present**'. Yesterday's newspaper is NOT relevent. If you can 'Manage Your Game' in this regard, tomorrow's newspaper may have your name in the 'Sports Column' under the title of 'Golf' telling of who won! (came second, third or fiftieth!)

'Through The Two Low Inertia Intervals'

Play Well!

Thank you again for your precious time. I hope this helps.

SIMPLE PUTTING IS THE GENESIS!

This 'Game of Golf', from a '**PHYSICAL & MECHANICAL**' perspective, which directly relates to '**GEOMETRY & FEEL**', is simply '**PUTTING**' with varying '**TOOLS**' (Length/Loft/Lie) and varying degrees in the '**LENGTH OF BACK SWING**' and '**APPLIED THRUST**' (Brace Leg Drive/PIVOT Pressure). To me, Golf is generally about activity in the 'IMPACT & SEPARATION Zone', the five inches before Compression and after Restitution. The 'First Five Inches' in the 'Take-Away' is critical as well. Every Golf Stroke is about 'Clubface AIM at the Moment Of Separation'! (see '**5 Essential Elements**' - C/F AIM, C/H PATH, C/H SPEED, Sweet Spot (OPA) and Angle Of Attack) That is about as simple as this old 'Golf Teacher' can put it for you!

There is a 'Putting Stroke' in every 'PUTT'.
There is a 'Putting Stroke' in every 'CHIP'.
There is a 'Putting Stroke' in every 'Bump & Run'.
There is a 'Putting Stroke' in every 'PITCH'.
There is a 'Putting Stroke' in every 'PUNCH'.
There is a 'Putting Stroke' in every 'DRIVE'.
There is a 'Putting Stroke' in every 'FULL SWING'.

This means that THROUGH the 'IMPACT & SEPARATION Zone' the Physical Characteristics ('AIM, PATH & SWEET SPOT or O.P.A.') of the Clubface should always be SQUARE to the 'TARGET LINE or POWER Delivery Thrust Line', to the 'Ball Flight Line' ('BFL'). (SQUARE to, POINTING at where you want your Ball to travel at the 'Moment Of Separation'!)

Remember, your 'Swing is most easily made and most effective when it is accomplished 'Parallel To The Body Line'. No 'Double or Open Crosses'!

'THE BALL GOES WHERE YOUR HANDS GO'!

**BRACE HAND TAKE-AWAY:
(MOVING THAT TRIANGLE)**

While on this subject of there being a 'Putting Function' in every procedure, let me for a moment, remind you that, during the 'Putting SET-UP' you form a 'Triangle' with your Hands, Arms and Shoulders. You remember! We know we DO NOT vary the shape of this 'Triangle' during either the 'Back or Front Swings' or we shall be 'Manipulating or Flipping'. Important point! If we are making a 'Putting, Stage One Procedure' with a stable 'Triangle', how do we move it so we can move the 'Clubhead' and do 'Work'? The answer is primarily with 'Rocking Chair Shoulders'. There are other 'Motive Methods' too as you either know or will find out in these books. A final point about 'Motive Force' or the 'Putting Engine' is that I feel the 'Brace Hand' provides the 'Take-Away' while the 'Brace Shoulder replaces it back to and through the 'IMPACT & SEPARATION Zone'. **The 'Brace Hand' still essentially 'WINDS UP THE MACHINE'** as it does in the 'Full Swing or Stage Three Procedure'.

So, the 'Brace Hand Takes Away The Triangle' while the 'Brace Shoulder Returns It To And Through The 'Ball'. It is useful to know that, to move the Apex of this 'Lever Triangle' one only has to only move 'One Corner Of The Entire Shape'! The 'Hands form the Apex'. If we move but the 'Brace Hand', the entire 'Triangle' will come into perfect force and action creating the 'Motion' that activates a 'Perfect Putter Head To Do Perfect Work'.

By the way, this applies directly to your 'Chipping Procedure' as well. When you set up to 'Chip' I suggest that you enable a '**Target Lever Dead Rope**' in order to facilitate both a reliable 'Bottom Of Swing Arc' (BOSA) as well as an unmanipulated function with perfect 'Clubhead Control'. Getting that 'Sweet Spot' ('OPA') to, away from and back to the 'Ball' is no accident. Neither are 'Winning Pay Checks'. Moving that 'Dead Rope Triangle' is a very reliable method of making 'Putts and Chips'! It also applies significantly to all the various 'Swing Procedures' including the 'Driver Full Swing' where you want that 'Clubhead' to remain in contact or close to the ground for at least the 'First Five Inches' ('Moment Of Low Inertia'). Objective? No manipulation. No 'Pick-Up Inside Take-Away'. No shortening of or changing of the 'Swing Radius'. Enabling the 'Brace Side' to accomplish its illustrious 'Primary Work Role'. The 'Golf Swing' is absolutely a 'Brace Sided Event' ('Rear Wheel Drive').

BRACE MIDDLE FINGER TAKE AWAY - PUTTING & DRIVING:

(`Minimal Grip Pressure`)

No Vertical Motion or Lift action

While we are on the subject of the `Brace Hand Take-Away`, perhaps we might narrow the scope just a little? Do we take the `Golf Club or Clubhead` away from the `Butt Of The Ball` with our `Full Hand`? `With A Fist` or with the `Fingers`? Remember this `Motion Away From The Ball` is a `Low Energy Finesse` move! I personally teach my students to `Get The Clubhead Light` and then to effect the `Take Away` with very smooth pressure on the `Pad Of The Brace Middle Finger` if you are `Brace Hand Low`. This technique ensures the smoothest and most `On PATH Motion` possible.

If you are a `Target Hand Low Procedure`, then I might suggest that your `Initial Back Swing Motion` is created by gentle pressure of the `Target Palm Heel Pad` against the `Putter Grip`. (see `3 Pressure Points` or `Three Xs` - `GRIP / PUTTING`) Remember our recent topic of the `Moments Of Low Inertia`. Key material! If you are `Fuzzy`, turn to your `Friendly Tour Guide Index` soon.

LENGTH OF BACK SWING:

INCHING IS PUTTING & CHIPPING ENERGY CONTROL
BODY CLOCKING IS EVERYTHING ELSE ENERGY CONTROL
(`Brace Hand Travel Distance` `BHTD`)

Why do I refer more to the `Length of Back Swing` (`One Inch Rule`) and not get overly focused on the `Front Swing` other than to `Chase` a little longer than my Back Swing?

Because the Golf Swing is simply a matter of **CAUSE & EFFECT**. If you make the `Back Swing` and let the `Stored ENERGY` (LOAD COIL and Wind-Up Rotation) go or expend, you will make a Front Swing! If you `Swing In Balance`, what you `Set-Up` in the Take-Away and Back Swing you will get back in your `Front Swing`. If you make a relatively good `Back Swing`, you should make a relatively good `Front Swing`. That's fair! You already know that I think that your `Back Swing` is simply a `Dress-Rehersal` for what is going to take place in the opposite direction. I think the `Back Swing` is just the `Front Swing` sort of in the reverse direction with less activity. But is it truly preparing for the `Forward Event`?

In other words, the 'Length of the Back Swing' absolutely SETS-UP the 'Length of the Front Swing'. This Game is always a matter of '**BALANCE**'.

Let this writer tell you something please? 'Your Back & Up Swing' is a '**DRESS REHEARSAL**' for your 'Down & Out Swing'. Simplicity?

All we do in the Golf Swinging Motion with a Ball in place, is really vary the '**Brace Toe or Foot Pre-Load**', which directly stimulates or programmes '**PIVOT PRESSURE**' (Brace Leg Drive), which produces and controls '**Delivery POWER**' or 'Front Swing Clubhead Speed' which accomplishes **DISTANCE** and **DIRECTION** generally as a result of a proper SET-UP.

You will remember, we '**Pre-Select**' the beneficial '**COMPONENTS**' and blend them into the proper '**PROCEDURES**' to produce predictable results. If your 'Ball Flight' did not satisfy your expectations, something went wrong in either your 'Pre-Selection of Components' or in your 'Procedures'. There are no other possibilities.

You know why I say that your Clubhead Speed is directly responsible for Distance, influenced by Clubface AIM and Clubhead PATH. We know that the purer the IMPACT and SEPARATION Conditions, the less '**Side Spin and Spin Rate**' we produce, the more efficient our 'Energy Management' becomes; the Straighter and Farther the Ball travels. Keep in mind, too much of anything may be a bad thing; other than Pars and Birdies!

Excessive '**Underspin**' (revolution about the Equatorial Axis and not the Polar Axis) causes a Ball Flight that 'Climbs More' than with reduced Y Axis Spin Rate. Poorly struck Balls climb and float, a characteristic not beneficial into a headwind.

As well, excessive '**Side Spin**' or virtually any such 'Spin Rate' at all, causes '**Friction or Resistance**' and thus increased and decreased Drag. This is '**ENERGY Bleed-Off**' or '**POWER**' being expended and directed in a less-than-useful direction or task. It is very inefficient.

A well-struck Ball with minimal Side-Spin into the wind will '**Hold Its Line**' better than one with more 'Side-Spin'.

Generally control these negative factors by better management of your '**COMPONENTS & PROCEDURES**'. '**GRIP, Which CONTROLS Or SETS-UP Clubface AIM, Is A Component**'. 'Clubhead PATH' is also a result of

'Set-Up Components' and 'The EXECUTION Of Pre-Selected Procedures', including 'Inside-Out & Outside-In Clubhead PATH'.

NO ONE WAY TO PUTT:

We must always be aware of the fact that there are 'No Two Individuals Alike!' Thus there are no two 'Putting Pre-Shot Routines and Strokes' alike either.

You will hear conversation about 'Two Distinct Putting Methods'.

1) 'Straight Back & Straight Through' or '**Square Square Square**'. This method is very safe, especially for short distances. It is your very safe '555 2X4 Putting Drill Method'. But, knowing that the 'Putting Motion' is always slightly around the body, (more so for longer strokes) this method is based upon very carefully learned 'Physical Motion'. It is a 'Push Out Back Swing' and a 'Push Out Front Swing'.

2) '**Inside Square Inside**'. This 'Motion' can be argued as being the more 'Natural Method' and perhaps it is. But, it too must be learned.

Always keep in mind that the 'Golf Swing' is unavoidably '**Physics and Mechanics**'. All 'Motion' is! We must approach all 'Golf Swings' as such to varying degrees, consciously or subconsciously, in order to be successful. There is discipline required in order to make a 'Repeatable Stroke Procedure'. This enables us to become 'Consistent'.

BODY POSITION & BALL LOCATION

The TOP & BOTTOM OF THE TETHER BALL POLE:

We speak of '**Crying On The Ball**'. That means it is somewhat closer to our feet than perhaps some might use. The closer the 'BALL LOCATION' is to our feet, the more 'Vertical' and the 'Straighter' will be the 'Putting Stroke Line' in relationship to our 'Body Line' and 'Rocking Chair Shoulders' (see 'Secondary Engine').

In this 'SET-UP Configuration', the easier it will become to make the very effective 'Square Square Square' or 'Straight Back & Straight Through' 'Putting Stroke'.

Remember, we always must naturally 'Swing The Golf Club On Our Body Foot Lines'. Any other conditions tend to initiate or cause that dreaded 'Manipulation'.

We can functionally 'See The Ball Rolling Line' better when our 'Vertical Eye Line' is over or 'Plumb To The Ball Rolling Line' ('BRL').

Do not try this 'Method' with the 'Eyes' way out past your 'Vertical Eye Line' or 'Ball Location'. It will become unnatural and manipulative. Bad stuff! You can tend to swing 'Outside Square Outside'.

Either of the above 'Putting PATH Methods' are best powered by those '**Rocking Chair Shoulders**' which are the 'Secondary Swing Engine' that produces all the 'Back & Up and Down & Out Motion'. The 'Secondary Golf Engine' 'Powers' the 'Stage One Procedure' ('No Wrist Cock and No PIVOT') and is still primary, but not the sole 'Power Source', in the 'Stage Two Procedures' which have some 'Wrist Cock' factoring.

Whatever you make 'Putts', keep in mind that the 'Bigger Muscles Are The More Stable Muscles'. Keep the biggest muscles doing the work wherever possible.

'**Flippy Handed**' is not stable and may be the 'Number One Putting Killer'!

Can even invite the 'YIPS'!

Innoculate now!

**STAGE ONE, TWO & THREE
BASIC MOTION CURRICULUM
SWING PROCEDURES**

1) **MOTIONS:**

It is this teachers proven opinion that every Swing made by man takes place in a maximum of 'Three Stages'. These stages are defined primarily by the 'Length of the Back Swing' and the associated 'MOTIONS and Actions' relating directly to this Back Swing. Of course, the Back Swing 'SETS-UP' the Front Swing. If you make a Full Back Swing, very soon thereafter, one should experience a Full Front Swing! If we make a Full Back Swing and a Less-Than-Full Front Swing, we will have 'Decelerated or Slammed on the Brakes'. Negative or Braking HorsePOWER has no place in Golf, except, perhaps, in the Golf Cart!

The 'Golf Front Swing' is a '**DROP, PUSH and FREE-WHEEL EVENT**'.

2) '**SLOW MOTION FIRST**'

Just to keep some important thoughts and philosophies in the front of our minds, I want to remind you that, when you are working on a new 'Stroke Pattern or Discipline', 'New Components and Procedures', you are well advised to start with '**No Club In Slow Motion**'. Progress to '**No Club In Medium Motion**'. Then move on to using a '**Club In Slow Motion**' and finally progressing to the use of '**Club In Meium Motion And Speed**' before adding to it.

In this manner, we learn the 'FEEL of the MOTION' at a speed we can more effectively absorb. Our brains can adopt new 'Conscious Patterns' better at 'Slow Speeds' and thus transfer the 'Macros' to the 'Sub-Conscious' so that they can be 'Replayed' in that very special '**REFLEX or REMEMBERED FEEL METHOD**'.

In the Back Swing, using slow, smooth Motions '**Back & Up**' to the TOB, then '**Down & Out**' back through IMPACT and then '**Up & In**' travelling roughly the same 'Clubhead DISTANCE in both DIRECTIONS' as 'Continuously' as possible. You know I am of the firm opinion that the Front Swing travels farther than the Back Swing because it is 'Accelerating and has applied Brace Side POWER or FORCE'.

One Should Make 'NO ADJUSTMENTS' During The Stroke Procedure MOTION To Either Accomplish IMPACT Or 'Due To IMPACT'. I have had lots of customers tell me they "Adjust their Hands when they 'FEEL' the Ball Coming Off the Clubface". I know this attempt to 'Manipulate the Clubhead' can be Conceptualized, but it CANNOT be Actualized. By the time you 'FEEL any Clubhead to Ball Sensation', the Ball and Clubface have 'Separated'. The Ball is long-gone! **Those who attempt to manipulate the 'Clubface AIM and Clubhead PATH' are doomed to being 'Hackers'.**

Attach 'Items' (Components & Procedures) in the 'Three Stages' first without and then with a Ball. Try to NOT interrupt or manipulate the MOTION. **Let the 'Lower Body Machine', 'PIVOT & ROTATIONAL POWER Create Most Of The ENERGY And Do The WORK'. Allow or make the 'LAGGING Upper Body Machine' be subservient to the 'LEADING Lower Body Machine'.** Work diligently on having your 'Big Muscles' dominate the 'Smaller Muscles'. They are much more stable and better suited to the task.

Use your 'Proper GRIP' and keep it simple and 'Without Pressure'.

In each lesson or practice session, review and then, begin where the last one left off.

All Swings, 'Pre-Selected Components and Pre-Selected Procedures', are either '**Stage One, Stage Two or Stage Three**'. Listed below are the description of these 'Three Stages'.

3) **THE THREE STAGES**

i) **STAGE ONE SWING:**

BASIC MOTION ('ROCKING CHAIR SHOULDERS')

Short Iron, Putting and Chipping (#7/8/9/PW/AW/SW)

The 'Basic MOTION' is about 'Two Feet' in Stroke Length in both Directions. (TICK TOCKS)

ZERO OUT the 'PIVOT'. There is no Shoulder Turn or Hip Turn. There is no Accumulator #3 (formed by the angle established between the Clubshaft and the Target Forearm, Wrist Bow ACTION). This Accumulator #3 Hand Motion is really about 'Clubface Control', 'RHYTHM Control' and 'Roll Power Control' of the Brace Elbow.

ZERO OUT the 'WRIST COCK'. Stable 'Forearm and Hand Triangles' so that actually there is no 'Wrist Hinge Motion' at all. No 'Wrist Cock'. No 'Wrist Roll', No 'Wrist Bend'. Think of 'Putting'.

In other words, in a 'Stage One Procedure', there is '**NO WRIST COCK and NO PIVOT**' or 'LOWER BODY MACHINE ACTION'; No Leg, Hip and Shoulder ACTION. The Body is very quiet as are the 'Hands and Wrist Angles'. It is primarily a 'Rocking Shoulder MOTION'.

There will be 'Follow-Through' to accommodate the 'Balanced Back Swing to Front Swing Energy Level Selected' which accomplishes the 'Pre-Selected Procedure'.

Use your Putter first with very short Strokes. Then 'FEELING' the same Procedures (Short Stroke) change to one of your 'Other 5 Putters'. You know, the #7/8/9/PW/AW/SW. 'Chipping is a Stage One Procedure'. It is a 'Putting Stroke' using a club that provides a 'HOP'. Chipping is very little 'Air Time' and 'Maximized Ground or Role Time'. It's a '**Putt With A Hop**' and should go in the hole!

You should prepare for every 'Chip' as though it were a critical 'Putt'. Utilize the same 'PreSHOT ROUTINE' as you would in 'Putting' including 'Reading The Green'.

ii) **STAGE TWO SWING:**

ACQUIRED MOTION

Short Iron, Chipping and Pitching.

The Clubhead Swing Length, Circumference of the Clubhead PATH, should still be quite short or abbreviated. The MOTION should NOT exceed the 'Level-To-The-Ground' position of the Brace Forearm. The Clubshaft will reach the level or horizontal to the ground 'Configuration' or slightly higher due to some Wrist Cock's naturally taking place.

There is '**WRIST COCK**'.

There is '**NO PIVOT**' except very little in the Shoulder Turn that begins to occur once the 'Brace Lever' has travelled about 1.5 to 2.0 feet back from the Ball Location. This involves 'Swing Sequences #1, #2 and #3.

There is some Accumulator #3 and this Shoulder Turn required.

iii) **STAGE THREE SWING:**

TOTAL MOTION ('Basic Plus Acquired')

Middle Irons, Pitching and Full Swing Procedure.

FULL WRIST COCK and FULL PIVOT or ROTATION of the LOWER BODY MACHINE

FULL FOLLOW-FINISH

This 'Stage Three Procedure' require such Components as;

- 1) Standard PIVOT
- 2) Full FINISH
- 3) Maintained Hand PATH & Clubhead Delivery Line
- 4) Proper POSTURE
- 5) Proper GRIP
- 6) Proper STANCE
- 7) Proper BALL LOCATION
- 8) Proper ALIGNMENT
- 9) Proper Clubface AIM ('5 Essential Elements')
- 10) Proper IMPACT FIX Components
- 11) PIVOT Waggle (Lateral or Vertical)
- 12) Brace Hand, Elbow, Shoulder TAKE-AWAY ('Triangle')
- 13) Clubhead and Clubshaft ON PLANE
- 14) Clubhead LAG Pressure or LAG Loading
- 15) Flat Target Wrist Hinge

This '**STAGE THREE PROCEDURE**' is used in the 'FULL SWING' of all Clubs, especially the Long Irons, Fairway Woods, Driver.

'EXTENSOR ACTION Of The Brace Lever Is A Key Function'.

'PIVOT Of The Lower Body Machine Is Another Key Function'.

The '**5 CONTROLS**' are always in place, RIGHT?

JUST VARYING DEGREES OF PUTTS: (see 'The Perfect Progressive Golf Swing'- A New Paradigm! ... There Is A Putt In Every Drive')

The simplest thing I can tell you about the Golf Swing is that

'ALL STROKES PROCEDURES ARE JUST VARYING DEGREES OR LENGTHS OF PUTTS'.

(Regulated By Your Brace Hand Travel Distance (BHTD)
The farther your 'BHTD' the greater the 'Load-Coil'
and thus the more 'Lower Body Machine' involvement
which modulates 'Distance'.

The '5 Essential Elements' (Clubface Aim, Clubhead Path, Clubhead Speed, Sweet Spot & Angle Of Attack) are always functional or in play in every golf swing!

When you want the 'Ball' to travel farther than it might with a 'Putting or Stage One Procedure', make your 'Brace Hand Travel Distance' ('BHTD') greater. This creates more 'Back Swing Duration'. When the '**Acceleration Interval**' increases, so too does the 'Clubhead Speed And Thus The Distance Your Ball Travels'. Your 'Stage One' becomes and 'Stage Two Procedure' ('Wrist Cock but No PIVOT') or, with further 'Back Swing Movement', a 'Stage Three Procedure' ('Wrist Cock and PIVOT'). (see, 'Staging', 'Clocking' and 'Swing or Stroke Protocols')

PUTTING & CHIPPING:

The 'Putting' and 'Short Chipping Strokes' are 'Stage Ones'. They involve '**No Wrist Cock and No PIVOT**'. ('Zero Wrist Cock and Zero PIVOT')

LONG CHIPS & SHORT PITCHES:

Longer Chipping Strokes (Stage Twos) will 'Naturally' begin to utilize some '**Wrist Cock**' but no primary 'Loading or Back Swing PIVOT or COIL'. There is very little 'Brace Leg or Side Resistance' created and used which is a 'PIVOT and ROTATION' function. One might experience a quite 'Passive' Lower Body Machine 'Turn To The Target Side' in response to the Clubhead's ENERGY moving through

IMPACT and towards Follow or 'Swing Sequence #9'. A 'Stage Two Swing' never gets to 'FINISH' (SS #10) as there is not enough 'Kinetic ENERGY' generated to get the Clubhead to this elevation. The height of the 'Back Swing' determines the degree of 'Front Swing'. There is 'Rhythm and Balance'. You could simply 'LIFT' the Lever Assemblies to this Swing Sequence #10 or even to the 'Bounce Back #11, but the forced expense of ENERGY and the MOVE makes little or no sense.

PITCHING & THE REST:

The Pitching Stroke (Stage Three) is simply a slightly longer Swing Length, Arc and Circumference or involves slightly longer '**Clubhead Travel Distance**'. Due to the increased 'C.T.D.' you will 'Naturally' begin to 'LOAD-WIND' and utilize some primary 'Loading or Back Swing PIVOT or COIL'; more 'Resistance'. This will enable you to provide more 'THRUST' or 'Leg Drive' (Hip ROTATION) through the IMPACT Zone and thus produce more 'Clubhead Speed'. I need not tell you that this produces more 'DISTANCE', so I won't!

You, well I, would not attempt a 'Driver Procedure' with 'Putting Components', ie. much 'Less-Than-FULL SWING'.

The 'Full Swing Stroke' (Stage Three) naturally involves both 'Wrist Cock and Loading or Back Swing PIVOT or COIL' which 'Releases' in the Front Swing. There is, or should be, a lot of 'Brace Side Resistance' in the 'Full Swing Procedure'. This, of course, produces more activity and MOTION on the 'Front Swing Side of the MACHINE' and gets us to 'Swing Sequence #9 and perhaps #10' depending on you FINISH style.

From this brief discription you can begin to see and understand that I 'FEEL and TEACH' (Conceptually, Intellectually and Actually) that;

4) **ALL SWINGS ARE JUST VARYING DEGREES OF PUTTING!**

- 'There is a Putt in every Putting Procedure'.
- 'There is a Putt in every Chipping Procedure'.
- 'There is a Putt in every Pitching Procedure'.

'There is a Putt in every Full Swing Procedure'.

(You will notice that a 'Putt' is just an
'IMPACT & SEPARATION Zone Procedure')

5) **PUT ANOTHER WAY:**

The last 6 to 12 inches of every 'Driver Forward Swing' ('IMPACT & SEPARATION Zone') has virtually the same or very similar Shape, 'Clubhead PATH', 'Clubface AIM', 'Sweet Spot' (OPA) and 'Angle of Attack' as does the 'Putting Stroke'.

So again,

'There is a Putt in every Putt'. (Naturally!)

'There is a Putt in every Chip'.

'There is a Putt in every Pitch.'

'There is a Putt in every Punch.'

'There is a Putt in every Full Swing.'

When you have the properly 'Pre-Selected Components and Procedures', all you have to do is make your proper 'Take-Away', 'Low & Slow, Deep Flat and Wide', with the desired length of 'Back Swing' ('Swing Arc and 'Circumference') to satisfy your need for 'Clubhead Speed' which creates or produces the desired 'Distance'. It is our general objective to have the Ball come 'Off the Clubface' ('Separation') with the 'Clubface AIM Square to the Target or Ball Flight Line'. Also, it is our objective to have the 'Clubhead PATH' at least momentarily 'Parallel to the Target or Body-Foot Line at Separation'. A proper 'GRIP' and overall 'BODY MACHINE Balance' promotes and makes this event possible!

You can certainly strive to **'MAKE this Happen'**. I much prefer and promote that you **'LET This Happen'!**

6) **BODY PARTS CLOCKING:**

I spoke of this 'Clocking' before and will do so again, I am sure. You will know that it helps us reference or control the 'Length Of Our Back Swings' which enables us to control our 'Clubhead Speed' which directly enables us to control our 'Ball Flight Distance'. Simple basic physics!

I personally find the pure 'Clocking Image', which makes us pretend that our 'Target Lever or Arm' is the big hand on the clock and our bodies are the face of the clock, to be a little confusing. One can look at the body from the inside out or from the front on which makes your 'Clocking' potentially a reverse image. "Hey, I see it as not being 9 o'clock but 3 o'clock!" How many times have I gone through this conversation with students? Too many times!

So I have developed a useful alternative, the 'Body Parts Clocking Method' where we do not take the 'Brace Hand' to any specific 'Time' but to a specific 'Body Part'. You recall where 9 o'clock is! Well this is about where our 'Brace Hand' reaches our 'Arm-Pit'. So you may prefer this 'Body Parts Clocking' over the other more nebulous reference system. Yours to use as you will!

CHECK LISTED BODY PARTS:

Here are the 'Check List, Calibrate Your Bag' sheets we hand out to students or clients in our '555 Golf Academy Clinics and Lessons' so that they do not have to rely on their good memories for total retention! I hope this material helps you as well!

Please note that the '**555 GOLF TEAM**' has provided you with a 'Performance Grid' which you might make several copies of. Now, when you are really 'In The Groove' you can make several great 'Clocked Strokes' with each of the 'Tools' (Clubs) as noted in the 'Left Margin', measure or pace the 'Distance' and record it as you '**Optimal Ball Flight Distance**' with the specific 'Body Parts Clocking Locator Swing Length'. When you are very balanced, you will know within a foot or two how far your 'Ball Flight' will be at any certain time. How good is that?!

You will be a 'Short Game Guru'!

And have lots of good folks asking you for a round!

Good ego or 'Self Esteem Builder'!

Now we are going to provide you with a great 'Course Management Tool' called the 'Distance Control Grid'. I not only think you will find this useful but also think you must use it! That is, if you want to improve you 'Short Game' and make it more 'Consistent'!

It is your decision!

JUST ONE MORE POINT:

Your '**BODY PARTS CLOCKING**' involves '**Five Clocking Positions**' and '**Nine Clocking Procedures**'. These are 1) Thigh Drop, 2) Thigh Drop Thrust, 3) Hip Drop, 4) Hip Drop Thrust, 5) Lower Rib Cage Drop, 6) Lower Rig Cage Drop Thrust, 7) Arm Pit Drop, 8) Arm Pit Drop Thrust and 9) the 'Personal Full Swing' which generally involves the 'Brace Hand Travel' reaching the 'Brace Shoulder'.

It should be noted herein that the purely 'Drop Motion' once you are up to or above the 'Lower Rib Cage' is likely not possible or, at best, will be awkward. You will get some 'Brace Hand Winding Of The Lower Body Machine' by this 'Clock' so there will necessarily be 'PIVOT Release' in the 'Front or Down Swing'. That is 'Stage Three'! It is OK! This very slight 'Leg Drive' will work well in your 'Short Game' too. (see 'Short Game')

You will love the results you are going to get from this very smart 'GRID WORK'! You will soon know where you 'Distance' Come from and now much 'Energy To Apply'. '**GREAT CONSISTENT STUFF!**' Write and tell us if you have progress and a 'Light Bulb Moment'!

SHORT GAME DISTANCE CONTROL
'BODY PARTS CLOCKING GRID'

	TD	TDT	HD	HDT	LRC D	LRC DT	AP D	AP DT	F/S
#XW (64)
#LW (60)
#SW (56)
#AW (52)
#PW (48)
#9
#8
#7

'BODY PARTS CLOCKING'

STAGING YOUR SWING

I has been said to me that, for some, the actual 'Clocking Perspective' is difficult to conceptualize so, in these 'Blurry Cases', I utilize various 'Brace Side Body Parts' to create or contribute to the 'Pre-Selected Limit Of Back Swing' (always 'Matching Components and Procedures') so necessary to effectively control the 'Clubhead Momentum, Inertia or Velocity' ('MIV') which is really the 'ENERGY Management' needed to generate the desired or 'Optimal Shot Distance'. You can be inventive but your options are quite limited as there are few distinctly applicable 'Body Parts'! Adequate however! A little '555 Anatomy 101'?

So, how many 'Body Parts' are we going to use in order to make this anatomical concept a reality and a successful automatic part of our every 'Golf Day Routine'? I think perhaps '**Two Only**' is a starting point, but, when you get the 'FEEL' for it, might I suggest that you employ '**FIVE BODY PARTS CLOCKING**' as your full methodology? They are distinct and relatively easy to implement.

TWO STARTING CLOCKS:

The '**TWO STARTING POINT BODY PART CLOCKS**' should be the '**BRACE HIP**' and the '**BRACE ARM PIT**'.

These are the '**Two Horizontal Component Swing Sequences**' meaning that at the 'Brace Hip Clock' the '**Clubshaft Is Horizontal To The Ground**' (Swing Sequence #3) and at the 'Brace Armpit Clock' the '**Target Lever Is Horizontal To The Ground**' (Swing Sequence #5). Simple enough to 'FEEL' and learn from.

These are truly primary 'Video Swing Analysis' positions or perspectives. Two more primaries are certainly '**Address Ready**' (Swing Sequence #1) or more importantly, '**IMPACT FIX**' (Swing Sequence #1a) and then there is that old regular, '**Top Of Back Swing**' ('TOB') (Swing Sequence #5). Get these two right!

YOUR 5 BODY CLOCKS:

The total '**FIVE BODY PARTS CLOCKS**' are all registered on the 'Brace Side' because the 'Brace Hand' is the 'Motive Controller' as is demonstrated in the '4 B's' as you well know. The 'Five Body Parts Clocks' are, **1)Brace Thigh, 2)Brace Hip, 3)Brace Lower Rib Cage, 4)Brace Armpit and 5)Brace Shoulder which denotes the 'Full Swing' limit of 'Brace Hand Travel'**. This is sometimes known as the 'Limit Of The Swing Circumference' or the 'Length Of The Swing' as opposed to the 'Swing Radius'. The terms 'Width and Arc' may be hovering in your mind. They are very good and precise use of the scientific English language. Keep utilizing good terms as it will enable you to both understand and communicate your love or hate of the 'Great Game Of Golf'. We must share the good and bad in our lives!

Worthy of note, is the fact that all of these 'Body Clocks', five or otherwise, are or take place at your 'TOP OF BACK SWING' where you say that smallest of our 'GOLF WORDS' which is '&'. If you are not familiar with the 'Trigger Word Sequences' turn to your 'Trusty Tour Guide INDEX' and expand your knowledge and ability.

STAGE ONE:

'6:00 to 7:00 o'clock' (comfortable ROM)
'Body Part Locator = '**Brace Inner THIGH**'
'Short Stroke as in PUTTING'
'Very Short CHIPPING Stroke'
'One Inch Rule' applies.

Target Lever Extended - Flat Target Wrist Hinge or (Slightly Bent depending on your 'Pre-Selected Triangular Set-Up Components'), 'Hands Forward Pressed or Central'. Triangles Stable regardless of 'Hand Wrist Positions'. 'Slight Wrist Cock or Set' which is a 'Static Pre-Selected Wrist Hinge Condition'. Shaft is NOT 'In Line' with either the 'Target or Brace Forearms',

No Wrist Cock.
No PIVOT.

The 'Motion' of this 'Component - Procedure Combination or MATCH' is either by a 'Rocking Chair Shoulders Pendular Action' or by a 'Brace Lever Thrusting Action' accomplished by the 'Brace Lever Bend and Straighten Action' or combinations of both. Depends on 'ALIGNMENT'.

Ideally, one should or would be best served by simply 'Rocking Those Shoulders' to create the necessary 'Momentum or Motive Force'. It requires the least number of moving parts! Less to go wrong! Simple is always better than anything more complex!

PUT ANOTHER WAY:

STAGE ONE: (Maximum Range Of Motion)

'07:30 o'clock' or less (Shaft Position)
'Body Part Locator = '**Brace Mid Outer THIGH**'
(slightly more if required)
'Fully-Extended Back Swing with No Wrist Cock'
'Slightly Longer Stroke, Putt & Chip Stroke'

Target Arm Position Set - Stable Fixed Triangle whether Isosceles, Right Angle or other 'Triangles Set to Pre-Selected Shape', 'Slight Wrist Set' which is a 'Static Cocking Condition'. Shaft is NOT 'In Line' with either the 'Target or Brace Forearms'.

No Wrist Cock.
No PIVOT.

The 'Motion' of this 'Component Procedure Combination or MATCH' is either by a 'Rocking Chair Shoulders Pendular Action' or by a 'Brace Lever Thrusting Action' accomplished by the 'Brace Lever Bend and Straighten Action' or combinations of both.

WRIST POSITIONS:

Hands Forward Pressed - Configuration:

'Flat Target Wrist' with some 'Forward Press' (see 'Impact Fix')

(Universal BALL LOCATION is under your Clavicle)

Same Components, Different Description:

'Bent Brace Wrist' with some 'Forward Press', Note that both Wrists, while Hands are on the grip at the same time, are never both 'Flat'.

(BALL LOCATION under Clavicle)

Hands Central - Configuration:

Bent Target and Brace Wrists with Hands Central or Sternal Triangle will be Isosceles in configuration

(BALL LOCATION under Sternum)

'Slight Wrist Set' which is actually a 'Static Cocking Condition' which does NOT change in the procedure.

No Wrist Cock.
No PIVOT (LBM COIL).

The 'Motion' in this 'Component Procedure Combination' can be either by a 'Rocking Chair Shoulders Action' or by a 'Thrusting, Bend and Straighten, Brace Lever' or a combination of both 'Actions'.

STAGE TWO - short

'7:30 o'clock' (comfortable 'ROM')
'Body Part Locator = 'Mid Upper THIGH'
(slightly more if required)

Target Arm Position Extended - Flat Target Wrist
Slight Wrist Set which is a 'Static Cocking Condition'
Slight Wrist Cock, naturally induced by the 'Range Of Motion' of the Hands and Forearms which, if this was 'Blocked', would force a Brace Shoulder Lifting Action' and improperly altered 'Spine Angle' on the 'Forward Aft Axis or Plane'. Your 'Forward Inclination' as well may become affected and suspect'. Bad conditions!

Brace Forearm Below Level but above the Target Lever.

Wrist Cock
No Load PIVOT or COIL

The 'Motion' in this 'Component Procedure Combination' can be either by a 'Rocking Chair Shoulders Action' or by a 'Thrusting, Bend and Straighten, Brace Lever' or a combination of both 'Actions'.

STAGE TWO - Long

'8:30 o'clock' (increased 'ROM')
'Body Part Locator = 'Upper THIGH to HIP'

(slightly more if required)

Target Lever Position Extended - Flat Target Wrist
Slight Wrist Set which is a 'Static Cocking Condition'
Clubshaft Horizontal to the Ground
Brace Forearm Below Level but above the Target Lever
More Wrist Cock - Slight Passive Load PIVOT created by the 'Upper Body Machine's Winding Up the Lower Body Machine', 'FROM THE TOP DOWN'.

Wrist Cock
No Load PIVOT or COIL.

STAGE THREE - Short

'9:00 o'clock' (comfortable 'ROM')
'Body Part Locator = 'Brace Hip to Lower Rib Cage'

Target Arm Position Extended - Flat Target Wrist
Brace Forearm still over the Target Lever.

Strong or Tight Wrist Cock

Increasing PIVOT or COIL and Brace Knee Pressure

Wrist Cock

Load PIVOT or COIL Activated

Hands (UBM) Winding the Body (LBM)
(Top Down Outside In)

STAGE THREE - Medium or 'Less Than Full Swing'

'10:00 o'clock' (more LBM COIL and LOAD)

'Body Part Locator = **'Brace Rib Cage to Brace Armpit'**

Target Arm Position Extended - Flat Target Wrist

Brace Forearm Above Level and now Below the Target Lever

Strong or Tight Wrist Cock

Tightening Hip-Load Point and Brace Knee Pressure,

Abdominal Coil Increasing

Shoulders Rotated progressively to the Brace Side approximately 35 degrees ('ROM')

Hips Rotated progressively to the Brace Side approximately 70 degrees ('ROM')

Wrist Cock

Close To or Full PIVOT or COIL,

Maximizing Loading

Hands ('UBM') Winding the Body ('LBM') Top Down

STAGE THREE - Long or 'Full Swing'

'11:00 o'clock' (full LBM COIL and LOAD)

'Body Part Locator = **'Brace Shoulder and above'**

Brace Hand Above Brace Shoulder
Target Shoulder Making Contact With Tallish CHIN
Brace Forearm Above Level and now Below the Target Lever
Full Wrist Cock
Full Brace Knee Pressure and Hip Load Point Tightness,
Full Abdominal or Trunk Coil
Shoulders Rotated to the Brace Side approximately 90 degrees (to Max comfortable 'ROM')
Hips Rotated to the Brace Side approximately 45 degrees (to Max comfortable 'ROM')

Wrist Cock

Full PIVOT or COIL, Maximized Loading

Hands (UBM) Winding the Body ('LBM') Top Down

KEY POINT

I have provided you with the detailed 'Body Parts Clocking Sequences' and their primary functions. It is wise to start by learning only 'TWO'. They are 1) Your THIGH ('Stage One') and 2) your Hip ('Stage Two').

Soon you can add your very important 'Lower Rib Cage' but, remember '**This Golf Stuff Is Progressive**'! First we 'Walk and Then We Run'. First 'We Get Good and Then We Get Fast'!

Once you get these 'Three Body Clocks' mastered, you are well on your way to '**Mastery Of The Short Game**' as well. If you can 'Putt, Chip, Bump & Run and Pitch' to within that lofty '10% and 5% Rule', you can start 'Scoring Like The Pros'. That will make your day!

If it does not? Take up 'Tiddly Winks', 'Croquette' or 'Cards'.

PUSH or PUTT BASIC STROKE

(First Variety)

The 'Older or Big Sister' to this 'PUSH Basic Stroke' is the 'PUNCH Basic Stroke'. If you can learn these two, you will have a very firm grasp on 'Things Golf'.

There is 'NO Bend & Straighten Brace Arm In A Putting Procedure'. In

this 'Rock Your Shoulders Only Procedure' your 'Triangle' does NOT change shape. They are 'FIXED' and stable. When you increase the 'Range Of Motion' or 'Travel Length' of your 'Brace Hand' beyond 'Stage One' into 'Stage Two and Three', your triangle will change shape on the 'Brace Lever Side' only. **The 'Shoulder Segment and the Target Lever' remain constant in length and set a consistent 'Swing Radius'**. The 'Corner Of The Triangle Angles' vary. The 'Brace Lever', in the 'Back Swing', generally mobilizes or 'LEADS' the Triangle to the 'Brace COIL or LOAD Side'. I like to 'FEEL' that my 'Brace Hand' creates the Motion or moves the 'Target Lever' and stimulates the 'Rocking Chair Shoulders' just as in the 'Full Swing'. Remember, there is a 'Putt In Every Procedure'! The 'Putting Stroke' may not have any 'Wrist Cock or PIVOT' but it still has a beginning and an end. The 'Take-Away' is always primarily 'Hands Generated'. They are the 'Leaders of the Parade' while the 'EYES are the Captain Of The Ship', always! You may call them 'Drum Major Hands' as well as 'Navigator'!

This term is really appropriate as the 'Hands Monitor Rate Of Change In Velocity' which is 'Acceleration and Closure' in 'Physics and Mechanics'. This is their job, to make sure they get back to 'IMPACT and SEPARATION' at the same time ('TIMING and RPM') as the 'PIVOTING HIPS'.

As I have said before, I rather like to envision that the 'Brace Hand' stays the same distance from the 'Target Hip' throughout the 'Bottom Half of the Circle' and 'SYNCHRONIZES' with the 'Brace Hip'.

You will recall that one of the 'Conditions or Protocols' of the 'Pre-IMPACT Sequence (SS#7a and #7b) is 'Brace Hand and Brace Elbow coming 'In Line' with the 'Brace Hip'. This 'In Line' is the very 'Connected Power Position' where my 'Brace Foot FEELS directly Connected to my Brace Hand' and thus to the 'Clubhead'. The 'POWER' has to be 'Delivered' in this manner. The 'Body' creates the 'Rotational Power' ('Physics Of Rotation' and 'Geometry Of The Circle') which is connected to the 'Lever Assemblies' through the 'Transmission Shoulders' just as takes place in the automobile. I hope this image makes some sense.

A '**Putt Basic Stroke**' has very little or no 'Wrist Cock' and no 'Pivot'. It is obviously like a 'Putting Procedure'. The '**Push Basic Stroke**' is as it states ... you 'Load & Un-LOAD Pivot Pressure' or 'Brace Leg Drive'. You create 'Rotational Power'.

CLOCKING PRESSURE OR THRUST ALTERNATIVES
SOFT, REGULAR, FIRM BRACE LEG DRIVE
(Brace Toe Pressure 1, 2 and 3)
Leads to 'The Brace Foot Pre-Load'.

Three 'Pivot Throttles' ... 1) Brace Toe Pressure
2) Brace Foot Pre-Load
3) Brace Leg Drive

In the 'Bottom Half Of The Golf Swing Circle', 'Thigh and Hip Clocks', you can accomplish 'Energy Delivery and Release' by either simple 'Gravity' or you can add a little 'Brace Leg Push, Thrust or Drive' as required to achieve your 'Pre-Selected Procedure'. From 'Swing Sequence #3 Back and Up', 'Hip Clock', we start to 'PIVOT and COIL'. Thus we can respond in the 'Delivery Phase' with 'Thrust'.

With 'Zero COIL or LOAD' we can only deliver 'Gravitational Drop' but, once we 'WIND or COIL' which 'Stores Potential Energy', we can 'Deliver Kinetic Energy' to the 'Ball' via the 'MIV Clubhead'.

These **"Soft, Regular and Firm"** are 'THRUST TERMS' and are of considerable functional 'Distance Control' importance. 'Golf Is Simply Distance & Direction'. If you want to improve or perfect your 'Short Game', you are not going to get to your 'Destination' without being able to precisely control your 'Clubhead Energy' ('MIV') which is 'Distance'. This 'Half Of The Golf Equation' gets my attention!

Remember, 'Clubface AIM and Clubhead PATH' are the other half!

There are several 'Acceleration or Motive Force' options. The simplest of these is '**Gravitational Acceleration**' ('DROP') while a more complex version is the application of 'Smooth' 'Brace Foot PreLoad and Leg Drive' or 'Pressure' which activates and draws the 'Lower Body Machine' into the equation and actions. (**'DROP THRUST'**) The three degrees of 'Shotr Game Motive Force' are 'Soft, Regular and Firm'. 'Gravitational Acceleration' creates 'MIV' (Momentum, Inertia, Velocity' which, when it reaches the end of the 'Target Lever Dead Rope' or the natural 'Bottom Of Swing Arc', does 'Work'. Solid 'Rotational or Engine Force' tendency for 'Forward Motion, is certainly precipitated or programmed by the 'Open Target STANCE' which invites and enables 'Trunk Rotataion'.

'Angular Momentum' and 'Centrifugal Force' creates natural 'Planar Forward Motion' as opposed to pure 'Vertical Motion' which would

cause the 'Clubhead to Stick Into the Ground'. Remember as well, that, as long as your 'CHIN remains Tallish' as 'SET-UP', you will not make 'FAT IMPACTS'. Your 'Lever Assemblies' were pre-set as 'Components' just able to reach and 'PINCH the Grass'. Unless you 'Drop Your CHIN' you should not make 'FAT HITS'.

We have two distinct alternatives or combinations in the 'Brace Hand Delivery PATH' which directly affects the 'Clubhead PATH'. They can '**DROP**' or they can move horizontally by 'Brace Leg Rotational **THRUST**'. In the case of applying some 'Brace Leg Thrust', remember that you must always employ '**MATCHING Components and Procedures**'.

What does that mean? If you apply some 'Round & Round, PIVOT Energy, you must 'MATCH' your 'Upper Body Machine Energy Lever' to this 'Lower Body Machine Energy Level'. Thus you must increase your 'Lever Assembly Up & Down Force' to match the 'Round & Round Force'. If you do not do this 'MATCHING' your 'Clubhead' will arrive at its 'Bottom Of Swing Arc' late or early. This creates the Thin - Fats!

Think for a moment of our 'Bullet Proof Drill' called '**TURN TURN TURN**' and its very close relative called 'TURN DROP TURN'. This 'DROP THRUST Combination' is really a '**TURN DROP TURN**' 'Motion or Combination of Motions' with 'MATCHING PRESSURES'. When your 'Brace Hand Travel Distance' ('BHTD') or 'Motion' is great enough to 'Load Coil or Wind The Lower Body Machine' ('**Priamry Golf Engine**') (see 'Balsa Airplane Concept') you are automatically into a 'Pivot Release' condition whereby you must create 'Horizontal Motion' by naturally pushing off or 'Thrusting Off' a 'Resistive Brace Foot'.

It is useful to be able to see oneself making these various 'Up & Down' ('UBM') and 'Round & Round' ('LBM') moves. It can be facilitated by two very good methods ... 'High Speed Video Digital Capture' or by using a 'Full Length Body Mirror' if you have one available. If you do not have a sliding wardrobe mirror on your on a closet in your home, find a friend who does! An option might be to make a purchase about Christmas or birthday for your spouse! Do not delay. Remember, the poor man's wardrobe or full-length mirror can be a patio sliding glass door or picture window located on the back deck. More than one way to skin a cat!

DROP TURN DROP TURN:

Adding one more 'Drop Word' is a good intellectual consideration but less of a good 'Physical Consideration'.

By this four word term, your '555 TEAM' means that, from the Top Of Your Back Swing ('TOB'), your first automatic 'Motion' is to allow your relaxed 'Hands & Arms' ('Lever Assemblies') to simply gravitationally 'DROP' out of the sky. As you do this, your 'Coiled or Loaded Lower Body Machine' shall naturally and reflexively start to 'Un-COIL or Un-LOAD' in a targetward direction.

As your 'LBM' ('Primary Golf Engine') rotates out of or away from the 'TOB Set Point' (see 'Brace Post'), you will smoothly add 'Brace Leg Drive' which more consciously delivers the 'Accumulated or Stored Potential Energy' into the 'Un-Winding LBM' 'FROM THE GROUND UP' and 'FROM THE INSIDE OUT'. Your Lever Assemblies must keep up with your 'Round & Round Lower Body Machine' that is 'PUSHING'. The more forcefully you 'PUSH', the more forcefully you must 'PINCH The Ball' by that 'Brace Lever Extensor Aciton' ('BLEA'). If you 'PUSH' harder, you must 'PINCH' more forcefull as well. These 'LBM' and 'UBM' energies or forces mut 'MATCH'. The harder we 'PUSH' 'Round & Round', ('Horizontal Motion') automatically the harder we must 'PINCH' 'Up & Down' ('Vertical Motion').

Hence the words 'DROP TURN DROP TURN'. As we 'Drop Turn PUSH' we must 'Turn'. As we 'Turn or Brace Leg Drive Harder' we must simultaneously 'Drop Thrust PINCH' harder by applying more 'Triceps Extensor Action'. This is the 'PINCH Action'.

You must get a grip on these primary 'Things Golf'!

If you have the slightest 'Grey or Fuzzy Area' in this topic, pick up the telephone or drop your '555 TEAM' a line via the 'Internet'. You must take the action and make the move. We work hard at our talents, but have never mastered 'Mind Reading' or 'Mental Telepathy'. 'ESP' has not arrived on our scene either! We will quickly let you know when it does!

DROP THRUST COMBINATIONS:

Drop and Thru - Dead or Passive Hands with 'Dead Brace Foot'
(Zero Wrist Cock, Zero PIVOT Procedure for Putt and Short Chip)

Drop and '**Thrust Turn**' Thru - Active 'Matching' Hands or Lever Assemblies with 'Active or Live Brace Foot' and 'PIVOT'. There is 'No Load COIL and its 'Delivery' without 'Brace Foot Pre-LOAD and Brace Leg Drive' ('Resistance'). (**'FROM THE GROUND UP' & 'FROM THE INSIDE OUT'**)

(Wrist Cock and PIVOT Procedure for Pitch, Punch and Full Swing)

STAGE ONE (Putt, Short Chips, Bump & Run)

Raise Drop via Brace Hand and Rocking Sholders
Dead Hands with No Wrist Cock

Raise Drop Brace Shoulder for Thrust - Live Brace Hand With More Lever Down Force to match the Shoulder Thrust if you require exceptionally long Distances, ie. 50+ Foot Putts. No 'Lower Body Machine' involvement.

STAGE TWO (Bump & Run, Longer Chips, Short Pitch)

Raise Drop with Wrist Cock In and Out (Hands Active)
Raise Drop Thrust Turn - Live Brace Leg With More Lever Down Force
(MATCHING)

Increasing Brace Toe Pressure, Brace Foot PreLoad and Brace Leg Drive which increases the 'Lower Body Machine' involvement. Remember, when you start to get more 'Lower Body Machine Rotataion', your 'Reflex or Sympathetic UBM Lift' must increase quite proportionately as well. In your larger 'Stage Two Procedures', which are big 'Chipping Procedures' with maximizing 'Extension and Width', you will produce more 'Brace Hand Elevation and Travel Length' in the 'Take-Away'. Brace Hand Travel Length means more 'Ball Flight Distance' which is the whole point of 'Inching and Clocking'.

STAGE THREE (Longer Pitch, Punch, Knock-Down, Full Swing)

'COILING Lower Body Machine and RAISING Upper Body Machine'
(Brace Hand Back and Up which COILS or LOADS the Hips & Trunk)
Fully involved 'Lower and Upper Body Machines', Forward Thrusting or UnLoading Hips - Down Thrusting Hands (TURN is still due entirely to the 'Back Swing PIVOT' & 'LBM') 'Turn Drop Thrust Turn' - Live MATCHING Hands (a 'COIL' Procedure).

Remember, your 'ROTATION ('LBM') to LIFT ('UBM') RATIO' creates properly balanced 'Swing Plane' and the resulting sound '**Clubhead**'

ORBIT or PATH' so essential in making good repetitive 'Centrifugally Natural Golf Swings'.

You can see and understand that it is the 'Brace Hand' that we utilize to increase the 'ROM or Travel Distance of the Hands' which 'WIND-UP the LBM' '**FROM THE TOP DOWN and FROM THE OUTSIDE IN**'. Thus all these 'STAGES' are predicated or controlled by the 'Monitoring Hands'. As stated above, the 'Hands Monitor Acceleration and Rate Of Change of Position' to the 'Brace Hip' and the 'In Line Position of the Brace Hand , Elbow and Hip' in the 'Pre-IMPACT Interval' (SS #7).

We are just doing some detailing and recalling here. Still simple stuff! You will get a 'GRIP' on these 'Concepts and Functions'.

Stay with it!

Q1)

'The all-important 'FEEL' which I experience
as the Swing Changes Direction
is that I have 'Left the Club Behind'
as I start to go forward.'

Bobby Jones

This means:

'Lower Body Machine' '**LEADING**' or firing early.

'Upper Body Machine' '**LAGGING**', Clubhead TRAILING,
as in a 'Parachute or Wet Mop' and firing late.

C8]

THE FOUR PRESSURE ZONES (the 4 P's)

Do 'All Good Things Come In Threes'?

Is the 'Third Time A Charm'? Too bad we could not make three Swings and then 'Count One'! That would improve results I am certain.

Eggs are great for you in moderation. They come in 12's! Now I will get calls from all over the country from the major, minor and 'Mom & Pops' food stores bringing it politely to my attention that they offer eggs 'In Less Than Carton Lots' or, sure as shootin', in the 'Twenty Four Pak'. Can't win for loosen'.

In any case here is a worthwhile 'Group of Three + One' that pertains to Golf in a meaningful way.

'PUSH PINCH PULMONARY PIN' (the 4 P's)

PRESSURE ZONE ONE IS BRACE SIDE

- 1) **The BRACE TOE PRESSURE, BRACE FOOT PRE-LOAD
and BRACE LEG DRIVE:**
(LBM PIVOT - ROTATION - 'PUSH')

We know beyond any doubt that the 'Braced or Loaded or Pressured Brace Toe Stimulates the Brace Foot Pre-Load'.

We know that the Brace Foot pushes or provides 'Pressure' to the lower leg, to the Flexed Brace Knee, which creates the overall 'Brace Leg Drive' that propels the Hips ('Lower Body Machine') ROTATING Target-wise, which draws the abdomen and Shoulders, the 'Upper Body Machine', forward towards and T H R O U G H the Target.

So this is a 'Pressure Zone' of key importance. It is the 'Priamry Golf Engine' in its purest form.

PRESSURE ZONE TWO IS BRACE SIDE

- 2) **THE BRACE ARM or LEVER EXTENSOR ACTION:**
(Down THRUST, Bend & Straighten - '**PINCH**')

We know that the Brace Elbow 'BENDS (in the Back Swing) & STRAIGHTENS (in the Front Swing)'.

In the Back Swing, as the Brace Hand moves beyond Swing Sequence #2, towards Swing Sequence #3 (Club Shaft Horizontal to the Ground), the Brace Elbow must be bending or 'Flexing' more in order to accomplish the physical MOTION or 'Raising Up' or of the Bicep Flexing, Shortening or Tightening ACTION.

In the Front Swing, as the Brace Hand drops down from the T.O.B. (Top Of Back Swing), Swing Sequence #5 towards Swing Sequence #6, (Swing Segment #1F), the Triceps in the back of your upper arm now tighten or shorten which 'Straightens' the just-recently-flexed Brace Elbow. Full 'Straightening or Extension' occurs very much towards the bottom of the swing, in fact, just through IMPACT, after the Ball has 'Separated or Departed' from the Clubface.

This 'EXTENSOR ACTION' must 'Match' the amount of 'PIVOT or Brace Leg Drive' in order to produce proper 'TIMING', 'Clubhead Location' and Ball Flight resulting from 'Compression and Line of Compression'. (see 'Three Lever, Single Action')

We must blend 'Horizontal and Vertical Motion' to accomplish 'Swinging On PLANE'.

PRESSURE ZONE THREE

- 3) **PULMONARY PRESSURE:**
(Blow Out or Exhale)

We know that you must be 'Breathing Out' certainly 'THROUGH the IMPACT & SEPARATION Zone'. You know that I promote that you should be 'Breathing Out if the Clubhead is in MOTION in any Direction'. It's safer that way! This is 'Common Sense' and proven by 'Martial Arts' for thousands of years. Of course 'Common Sense is not all that Common!

PRESSURE ZONE FOUR

- 4) **OCULAR PRESSURE:**
(Distinct Visual Focus)

You noticed that I have '4 Ps'. #4 being PIN. In a purist sense I believe that your 'EYES Have A Pressure' as well. Their 'SET-UP and EXECUTION' visual job is 'VRBP #1 or the Ball'. Their 'Follow-Finish' job is to move naturally to '**Visual Balance Reference Point #2**' ('VRBP #2') which is the 'Target'. I know, however relatively small, that there is 'Ocular Pressure' involved herein.

DOWN, UP AND DOWN

If you do not know what these '4 Words' mean, it's 'INDEX Time'.

- 4) **THE SEQUENCE OR CHAIN OF EVENTS:**

As your 'PIVOT Pressure' increases, and your 'Brace Lever EXTENSOR ACTION' increases to 'MATCH Pivot Pressure' as it must to keep the two 'Body Machines in Balance', your 'PULMONARY Pressure' must increase to match both 'PIVOT and EXTENSOR PRESSURES'. In this manner you may get smooth 'Delivery of POWER' with good 'PIVOT, Brace Foot Release and Clubhead Release'. If you 'Hold Your Breath' you will almost certainly 'Pull, Push or Block your Hands' causing 'Manipulated Ball Flight'. You cannot 'Free-Wheel' while holding your Breath. These errors, 'Pull, Push and the Hand Block' are all 'Manipulations' that involve 'Failure To Release' some 'Stored or Potential ENERGY' that interrupts your 'Clubhead ORBIT' to some always-meaningful degree.

5) **PUSH PINCH 'BLOW' PIN:**

You have heard me say before that the proper 'Pressure or Muscular Firing Sequence' is to '**PUSH - PINCH - 'BLOW' - PIN**' and I am committed to this being beneficial.

I bet you thought I was going to suggest 'Push-Pinch-Pray'! Well, that too!

6) **SIX (6) BODY PRESSURE ZONES:**
(the Whole Picture)

When I do my '**5 SET-UPS**', and you know the '**5 CONTROLS**', I FEEL like I have three 'PASSIVE or STATIC Pressure Zones'. They are the

- 1) **Tallish CHIN** ('SPINAL BRACED UP Pressure')
- 2) **Active EYES** ('OCULAR Pressure')
- 3) **Brace Toe & Foot** ('LEG DRIVE Pressure')
 (stimulates Leg Drive) produces Hip PIVOT

The overall 'Body FEEL' is one of 'Comfort and Readiness' and NOT 'Tightness underlined by Fear'. When I get into the '**EXECUTION Mode or Phase**' ('Active and Dynamic'), I make sure I apply the 'ACTIVE Pressure Zones'.

They are the

- PUSH** ('R&R' of LBM)
- 4) **PIVOT or ROTATION PRESSURE**
 (Hips Go Round & Round - **Carousel**,
 from the Ground Up and from Inside-Out)

- PINCH** ('U&D' of UBM)
- 5) **EXTENSOR or STRAIGHTEN PRESSURE**
 (the Brace ARM - Primary Lever & Secondary Lever & Golf Club
 ('Target Lever Assembly') go Up and Down - **Ferris Wheel**)

BLOW

6) **PULMONARY EXHALE PRESSURE**

(Blow Out matching the PIVOT & EXTENSOR Pressure
T H R O U G H I M P A C T Z O N E

PIN is EYES #1 & #2 VRBP again

All these 'Pressure Zones and ACTIONS' start very 'Softly' and grow or increase to 'crescendo' very 'Smoothly'; that is without and 'Jerky' or without any 'Mousetrapping' Action. A little aside, but remember we have 'Four Pressure Points in the Hands' that you must understand.

7) **TURN YOUR POCKET:**

(The SWAPPING POCKETS DRILL)

I have always tried diligently to come up with 'Word Patterns or Groups' in my teaching that convey concise 'Picture Word' images and instructions to produce ACTIONS or MOTIONS. It's a 'Life-Long Challenge' just as is GOLF's JOURNEY.

Certainly in the 'Full Swing' and in the big range of Motion Less-Than-Full-Swings' we require good solid 'Brace Leg Drive' and thus 'Hip ROTATION or PIVOT'. The 'Round & Round' is our Golf Swing Engine and very little else other than Brace Elbow Down FORCE.

We know that we must 'Complete our ROTATION THROUGH the IMPACT Zone'. We must NOT Swing 'AT' the Ball, but 'THROUGH' the Ball. With a '**STANCE COMPONENT**' that supports our 'Pre-Selected Procedure', (not too wide or narrow), we should be able to 'ROTATE from Brace Side Coil or Load through IMPACT all the way to the Top Of Front Swing' (TOF) where we have our Weight atop of a tall 'Target Leg' with our 'Brace Toe Tapping the Ground' ('Flamingo'). In other words, we should be up on our Brace Toes and be able to tap it on the ground. This simple little exercise is 'Proof of Completed ROTATION'.

8) **THE 'SWAPPING POCKETS' BULLET PROOF DRILL:**
 is a winner!

'THE BUTT MASTER 2000'

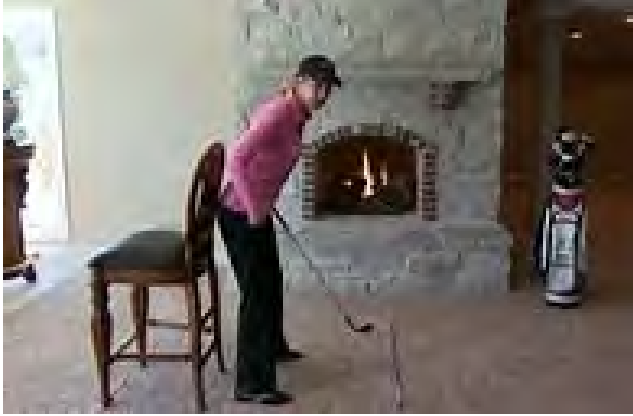
When you have 'TURNED to COIL LOAD' over the 'Brace Foot' with some 'Brace Pressure On The Brace Toe' which automatically 'Stimulates the Brace Foot To Activate The Brace Leg Drive', you will FEEL like you are 'TURNED or COILED' around the 'Base Of Your PIVOT' which is your 'Brace Medial Head of the Femur', that bulge or knob on the inside of your 'Brace Knee'. You will FEEL a 'Little Sit Down' with 'Brace Knee Flex'. This 'Brace Knee Flex' does NOT go away at any time throughout 'The Entire Golf Swing, Front or Back'.

At the 'Top Of Back Swing' (TOB) or when the 'COIL or LOAD TURN' is completed with the Hands and Levers elevated to their maximum as Pre-Selected, you should FEEL as though your 'Brace Pocket' is turned well to the 'Brace Side Almost To Behind Your Brace Heel'.

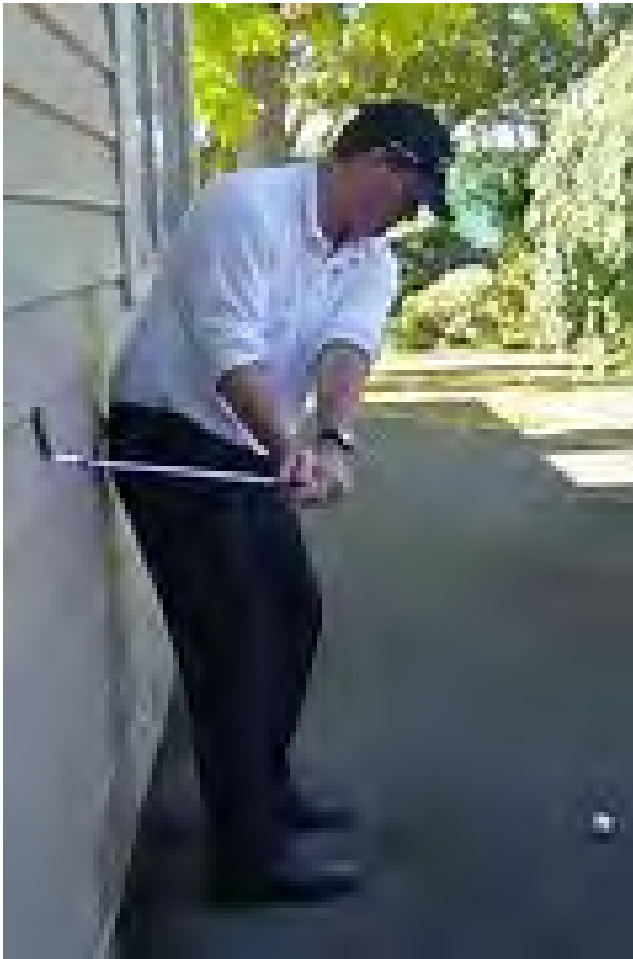
This having been accomplished, you will now let the Coil unwind and in doing so, '**TURN YOUR BRACE POCKET**' very positively and quite level 'T H R O U G H the IMPACT Zone' and even slightly past 'Square Hipped', Belt Buckle or Belly Button, to the Target. For my Right-Handed friends, I say 'TURN RIGHT - TURN LEFT' and that seems to help.

For my Left-Handed friends, I say 'TURN LEFT - TURN RIGHT' and that too generally gets the correct MOTION Message across. Tap your Brace Toe on the Ground after the Swing is completed nice and high handed FOLLOW - FINISH.

Remember the 'Butt Master 2000' 'Bullet-Proof Drill' as well. It uses a 'Chair' as well as your 'Back Pockets'. Pretty expensive props and 'Trainging Aids'! Told you the '555 TEAM' did not condone 'Golf Dildos' and we still do not! Keep It Stupid Simple! (see 'Your Friendly Tour Guide INDEX')



Butt Master 2000
Pivot Stability



Spinal Stability, Little Below Plane, Flat

C9]

THE SECRET OF PIVOT PRESSURE

Remember, 'WORK' or 'A FORCE ACTING ON A MASS THROUGH A DISTANCE' is about 'Pressure Being Applied' via some method. Resistance enables 'Compression & Line Of Compression'.

Firstly, 'The 'Body Machine' will neither go 'ROUND & ROUND' nor 'UP & DOWN' unless you apply some 'PRESSURE'. The simplicity of 'Natural Laws' is most wonderful. Take any object at rest. Unless you apply some 'Pressure (FORCE) be it 'Gravitational or otherwise', the object will 'Remain At Rest' until you do so. Remember Mr. Newton?

All 'Stage Three Procedures' require smooth prolonged 'Brace Leg Drive' and 'PIVOT PRESSURE' fully through the 'IMPACT & SEPARATION Zone' to avoid 'Manipulation or Flipping'. Remember to 'Feel Like Your Brace Leg Drive Delivers The Ball Down The Line'. (see 'Parallel Thrust Lines')

Strangely like Golf? Unless you do something about the 'State Of Your Game', it ain't going to get better and it may get worse! Damned unfair that I have to always solve my own personal problems!

And I always thought Golf was going to be FUN! So far I have been working on just that for coming on one life-time and I am actually winning. It's that 'Life-Long Leisure Skill' stuff. Right?

'Never Look Back'! Life is not in the rear-view mirror. Always drive 'Offensively' while looking out of the windshield, where the headlights shine! Tail lights really only glow. That's not enough for our one crack at the 'Journey' we have come to know as 'Life'. Our tail lights let our competitors know that we are ahead of them! That is a great purpose for tail lights.

Life ain't no 'Dress Rehearsal' so let out all the sail! Lots of ocean to cover so one had better get at it, maitee!

1) FROM THE GROUND UP:

Think of the '4 B's' for a moment. 'Brace Hand, Brace Shoulder, Brace Leg Drive and Breathe'. (which results from Brace Toe Pressure, Brace Foot PreLoad and then Brace Leg Drive) You already know this but I was just checking!

'The Brace Hand And Shoulder TURN To The Brace Side' Just Ever So Slightly Before The HIPS Follow'. It can be presented that these three move simultaneously and I would not argue energetically against this position. Afterall, it is what is meant by the term the **'ONE PIECE TAKE-AWAY'**.

But, it is my 'learned opinion', supported by thousands of 'Video Analyses' of quality players, that we **'WIND UP FROM THE TOP DOWN'** and **'FROM THE OUTSIDE IN'**. By now, you know well the phrases that the 'Forward UnWINDING Golf Swing' is **'FROM THE GROUND UP'** and **'FROM THE INSIDE OUT'** and the accomplished move is precisely that.

Whatever you think starts the 'Back Swing', the Hips, with their approximately 45 degrees of maximum ROTATION, get **'Snug or Tight or LOADED - COILED'** before the Shoulders with their approximately 90 degrees of ROTATION, TURN or COIL. The first man 'In A Tight Spot' is the first man to take action to get 'Out Of That Tight Spot'.

Again, here is how I know the 'Front Swing' works:

FROM THE BOTTOM or GROUND UP
and
FROM THE INSIDE OUT

It is because of this truth that I, again, in different night-club vernacular, come to know that **'The first guy who FEELS Tight, gets up and leaves first'**. The bottom drives the Middle and the Top. The 'Lower Body Machine' Powers or Drives the 'Upper Body Machine'. The 'Brace Leg Drives the Hips' that 'LEAD' the Abdomen and Trailing or 'LAGGING' Shoulders, Arms, Hands and Golf Club.

If you create 'PIVOT', it dominates the total 'HORIZONTAL MOTION' of the entire 'Body Machine'. But, you must create that 'COIL' for it to 'UnCOIL'.

If you **'TURN or COIL IN, to the Brace Side'** and **'LOAD the Flexed Brace Knee'**, which is the 'Base of the PIVOT', this 'Tightness', first in, comes out first. The 'LOAD' is by 'Conscious Motion' but

the 'UNLOAD' is by 'SubConscious or REFLEX Action'. Once you 'Turn It In' it turns out as a 'Reflex Motion' or response to the tightness. The muscles do not like to be tight, so they naturally get loose by 'Yielding and Relaxing'.

So the sequence for a 'Right Hander' is to 'TURN (Brace) RIGHT - GET TIGHT', 'TURN (Target) LEFT - GET LOOSE'.

At any time you are past Stage One, getting through Stage Two and into Stage Three, you must have 'PIVOT COIL and TURN' to the Brace Side which means that you must naturally then have 'PIVOT Un-COIL and TURN', '**Re-COIL** to the TARGET SIDE'.

'PUSH PINCH PULMONARY PIN'
'Blow Out or SPIT on the Pin'
(Always In Balance)

I could have put the following in the 'MEAT & POTATOES' Chapter, in the 'SWINGING MOTION' Chapters, in the 'PHYSICS & MECHANICS' Chapter, in the 'THREE PART GOLFING MACHINE' Chapter or in any number of other locations throughout this book and I have done so to a degree. But this 'CHIN Tallish Stuff' is so primal and so directly related to the 'PIVOT and PIVOT Pressure', it needs to be said again here and now.

Sorry again for any 'Redundancy' if you feel this material is such. Look upon this as a 'Review Moment' which we all need from time to time; at least I do! Here it is!

2) **THAT TALLISH CHIN ('Braced Up Posture'):**

A '**CHIN Tallish FEELING**' and your '**5 CONTROLS**' insures that you have room or adequate 'Clearance Between your Hips and Sternum' so necessary to not only 'Make the Swinging MOTION' but also the very 'PIVOT'. We need enough 'Upper Body Machine' (UBM) mechanical freedom to 'Turn Load and then Turn UnLoad or to Coil & UnCoil' obviously in both directions, 'Low ENERGY and High ENERGY', 'without Acceleration and then, in the Front Swing, with Acceleration'.

'The Swing POWER Source' for our Full Swings is the ROTATION Load and UnLoad of our 'Lower Body Machine', those 'Legs, Hips, our Abdomen and Shoulders'.

If our 'CHIN Is Dropped' our 'PIVOT Is Restricted'. Firstly in our 'Upper Body Machines' we will be incumbered. Secondly we will not be able, therefore, to allow the 'Lower Body Machine' (LBM) to do its 'WORK'.

In another order, when the 'Lower Body Machine' cannot perform, our 'Upper Body Machine' has to improvise on the move! When the 'LBM ENERGY Source', 'TURNING IN and OUT' is hampered, we will find this other way of producing POWER. It is generally in the 'SLIDE ACTION' of the 'LBM' or, importantly, in the **'ROCKING CHAIR MOTION Of The SHOULDERS'** combined with the 'UBM' getting directly involved in producing 'Horizontal Motion'. Any 'Smaller Muscled' aspect of the overall 'Machine' is no substitute for the 'Big Muscles of the Lower Body Machine'. If we try to substitute, we are flirting with disaster and even Golf Death!

3) **THAT CHIN CONTROLS:**

Dropping your 'Tallish CHIN' changes or alters those 'SET-UP Criteria' we have worked so hard to learn and accomplish. You know, those **'5 CONTROLS'**, the first of which is **'CHIN, then HANDS, FEET, BALL and PIN'**.

The position of our CHIN controls our

- i) Spinal Inclination
- ii) Spinal Aft-Tilt
- iii) Rotational Clearance, Comfort and Freedom
- iv) Swing PLANE
- v) Clubhead PATH
- vi) Angle of Attack
- vii) Clubhead Speed
- viii) Balance
- ix) Rhythm
- x) Short and Long Term Physical Well-Being
- xi) Mental Well-Being

Your '555 Team' knows it is worth a few moments of our time and consideration. If you can take the word of an 'Old Golf Teacher' or heed his advice, '**Never Leave Home Without IT**'. Never attempt even one single, 'End-Of-The-Day', 'It-Doesn't Matter' SWING, 'FULL or Less-Than-FULL', without proper 'PreShot ROUTINE'; without your proven-trustworthy '**5 CONTROLS**' on deck or 'On Duty'. They are truly the steadfast 'Keepers-of-the-Gate' and good and loyal soldiers. Trust and allow them to protect you.

How much clearer can I make this?

Then, once you have established this personal 'SET-UP Configuration', and you start the Back Swing, it is really too late to alter the 'Weight and Balance or Flight Plan' or to jump to another nearby 'Ship'. You are going to ride the one you boarded or 'Crash & Burn'! That is not a pretty sight!

Get ready with 'Due Care and Diligence' and stay 'Cool in the Execution' and it will not be your own!

Your carefully-designed 'ROUTINE' will allow Golf to be a reliable 'Life Long Leisure Skill' and source of true 'Pleasure'.

4) **SPINNING OUT:**

How many of you have heard and understand the term 'Spinning Out' as it applies to your 'LBM' and not your high-powered vehicle'?

If you are a bit of a 'Golf Passionate' you will have come across this term on the 'Golf Telecasts' including some of the 'T.V. Instruction'.

The term has been used to describe Tiger Woods' move on occasion when it gets 'Out of RPM or UnTimed' as it has occasion to do.

Tiger is a great example and lesson to all of us. We know that this athlete can 'PIVOT, ROTATE, Coil and Uncoil' like very few other humans involved in this 'Silly Game we have come to call GOLF' which, as an acronym, might mean '**Going Overland Lost Forever**'. Have any of you ever felt like tee-box to green was 'Overland'?

When Tiger Woods get his 'PIVOT'(LBM) outperforming his 'Upper Body Machine' (Shoulder Sockets Arms, Hands and Golf Club) golf professionals sometimes refer to this condition as '**TRAPPED**'; in

that his 'Clubhead gets Trapped Behind his Body'. It gets 'LAGGING' far too much which forces Tiger's natural 'SubConscious' talent to speed up the Hands to attempt to get the Clubface back to SQUARE through IMPACT. Remember, the 'Hands Monitor Acceleration, Velocity and LAG' of the Clubhead relative to the "Lower Body Machine'. Their light fast muscles, Speed, enable this 'UBM' to catch up when necessary. But, there is risk!

When the Hands receive their 'Electro-Chemical' signal by way of 'Adrenaline and Electric Impulse or Synapse', they can quite easily 'Over-Cook' their recipe. This sequence of 'Catching-Up Events' often leads to excessive 'Hand Speed' closing the Clubface Down too much resulting in Balls to the 'High ENERGY Side' of the Target Line, sometimes in the form of 'Snap Hooks'.

You know the scenario; 'Slowish Hips and Fast Hands'. Timing gets off and so does Ball Flight. One of the primary objectives of making the 'Golf Swing' is to 'Square Up the Clubface at the Moment of Separation'. This fits tight like a 'Wet Now Dry' Golf Glove. Primary tasks; '**COMPRESSION and LINE OF COMPRESSION**'. Nothing is much more important other than 'Having Fun'!

So let's see if we can put this slightly negative reality to some positive application or use. There is some life under every rock and some silver lining in every big black cloud! Flown through a lot of them sitting in the 'High Left Seat'.

5) **PUTTING SPIN-OUT TO USE:**

You know, for every excess there is a shortage; to every bad tale there, at some point in time, there comes a good ending.

Most Golfers who inhabit this globe, tend to be 'Deficient In Spin'. As mentioned, they get the 'Banana Slice' rather than the 'Snap or Bull Hook' that fast 'Hands Used To Matching the PIVOT Speed' can produce. When this usually 'Fast Pivot' slows for any reason, and the 'Hands were not notified and adjusted', they get to the party early. I call this 'Flippy Handed'!

Let us address this 'Speed Differential' from the 'Slicers Perspective'. You will recall their recipe (Components and Procedure) is the 'Flip Side' of the 'Hooker' (Slower Hips and Faster Hands). The 'Leaky Shot Maker' suffers from 'Faster Hands and Slower Hips' resulting in or causing the 'Over The Top Move'

which is also known as the 'Outside-In Clubhead PATH' producing 'CUT SHOTS', which, when 'Spin-Rates' are high, produce lots of 'Curvature In Ball Flight to the Low ENERGY Side of the Target Line', better known as the 'Slice'; that ugly step-sister to the 'Pull'.

When you produce 'Leaky Stuff' you need to attend to it without any delay. '**CHECK YOUR GRIP**' to ensure that you have it 'Strong Enough' (Component) to support your 'Pre-Selected Procedure' (Straight Non-Leaking Shots). Make sure, especially in your Longer Irons, that you have your '**V's Pointing To Your Brace Shoulder**' or that you can '**See Two to Three Knuckles**'. Remember, I think it is a good precaution to throw an extra knuckle or half at your longer-Shafted Clubs. If it is too much, well done. All you have to do is back some of the 'Strongness' out. Simply a 'SET-UP, Static, Passive' adjustment. No risk and no 'Motion Change'!

Go through your '**5 CONTROLS**'. This will prevent the host of other 'MOTION ERRORS' that wait in the wings for the first opportunity to come on stage. They like 'Centre Stage' best!

SO YOU'RE A LEAKER, FADER, SLICER?:

Once you have checked your GRIP, 'Set-Up **5 CONTROLS**' and execute another shot. If it stopped leaking, well done. Even if it has, I want you to do this 'BULLET-PROOF Drill'.

THE SPIN-OUT DRILL:

The purpose is to 'Speed Up Your LBM' without particular concern for the Ball Flight at first. Push your Brace Foot and Hips through the IMPACT Zone with more 'Force and Rotational Speed'. Do it five times regardless of results other than 'Clean, Pure Contact'.

You will find that your 'Hip Speed' (which has deliberately increased) will have been '**Monitored By The Navigator Hands**' and, as a result you should not have left the Clubface 'OPEN' which is the tendency with singularly 'Speeding Up the Hips'. You will recall my statement that the "**Hips Tend to Open the Clubface, while the Shoulders tend to Close the Clubface**". Remember, we did a Drill or Exercise for that too.

Once you have 'Pre-Selected the GRIP Component Stronger', as we

did, the expected or forecast 'Opening of the Clubface' will have been 'OFFSET' by a wisely altered 'Pre-Selected Component'; the Stronger 'Add a Knuckle GRIP'.

What great planners we are becoming!

A key to this focus is to 'Pre-Select Components' and to then alter the 'Procedures' to match. Do not worry about your Ball Flight. Keep 'Reloading', paying particular attention to the ' 5 SET-UPS' and those '5 CONTROLS'. Get your 'BALL LOCATION' right, under your 'Clavicle or slightly farther forward if you are 'Teed Up'. These 'Components and Procedures' are correct. Give them a chance to perform as 'Pre-Selected'. They will.

**'See The Ball Come Off The Clubface',
'Brace Hand, Brace Shoulder, Brace Foot and Breathe'
and
'Push Pinch Pulmonary and Pin'.**

These are great ingredients to the recipe for success!

I know and you do as well or will soon find out!

This is simple 'Physics of Rotation' and 'Geometry of the Circle'. Primal Isaac Newton stuff! The 'Natural Laws' are our friends. Take advantage of their reality. If you fight them, you lose.

Think Smart. Work Smart.

Never give up!

C10]

FEELING INSIDE AND BEHIND THE BALL

Eye Position and Aft-Tilt

Weight Distribution

Power Loading ('ALSDR')

'SET-UP'

This is 'SET-UP' stuff! It is very 'Ocular' in science and nature! But it applies to the 'Leg Drive or Thrust Delivery Phase' as well. Only after the 'Ball Has Departed The Clubface' might we naturally transition from this 'Inside & Behind Configuration'.

I have often referred to or used the term '**INSIDE AND BEHIND THE BALL**' ('IABTB') and do so both from a 'FEEL' and 'PHYSICAL and MECHANICAL' perspective. (see 'Aft Tilt')

We are always dealing with the topics of 'Aft-Tilt', 'Clubhead PATH' and 'Clubshaft PLANE' as well as other key 'Body Parts' functions. Understanding and applying these is imperative to making good sound repetitive 'Golf Shots' which you intimately know either by the 'Pain Method' or the 'Pleasure Method'. We intuitively know a good result from a mediocre or poor one.

Let us look directly at the 'Language' for a moment, that amazing ability we 'English Speaking' have developed for the purpose of recording and communicating.

'INSIDE AND BEHIND THE BALL' ('IABTB') is a far more meaningful five words to me now than when I coined or adopted them as many as thirty years ago. Hasn't got old and antiquated!

I want you to 'FEEL' this 'IABTB' condition. Firstly this type of 'SET-UP' prepares you for or to do 'WORK'. As we know, we must get our 'Weight Behind the Handle', our 'POWER Behind Our Weight' and then, by our 'Hands Being Behind The Clubhead', our 'Power Behind The Clubhead' as well. The 'Back Wheels' provide the 'POWER' in that 'Two Wheel Drive Pick-Up Truck' analogy we have discussed. Remember, our 'Golfing Body Machine' is a lot like that pick-up truck. The 'Power' has to come from somewhere specific.

I want to preface the following by telling you that my 'Tighter Would Subjects', for those with overactive 'Upper Bodies', the 'Tend-To-Casters', the 'Brace Shoulder Leading and Not Lagging

Folks', the 'Outside-Inners', the 'Over-The-Toppers' the you shall have to 'Pre-Select' more 'Aft-Tilt' or more 'Inside And Behind' proportionately to the tightness. That may not make really clear sense right now, but eventually it shall. Work on progressively more 'IMPACT FIX Weight Distribution to the Brace Side' until you strike 'Draw Spin Rate and Ball Flight Shape'. You will naturally do that with 'PLANE and PATH Change!

Now, without getting prematurely into 'AFT-TILT, PATH and PLANE' let us examine the term 'IABTB' for a moment from a very simplistic perspective. It's the 'Country Boy In The Teacher'!

QUESTION:

If we are NOT '**INSIDE AND BEHIND THE BALL**' then what are we?

ANSWER:

If we are not '**INSIDE**', we are likely '**OUTSIDE**'. If we are not 'Inside The Line', we are likely 'Outside The Line'. If we are not 'Inside-Out (PATH), we are likely 'Outside-In PATH'

Therefore, if we are not 'ON PLANE' we must be either 'Above or Below PLANE'. If we are not 'Under-The-Bottom, we are then likely Over-The-Top. You know these terms!

If we are not '**BEHIND THE BALL**', then we must be '**Even With The Ball**' or '**In Front Of The Ball**'. If we are 'Even With The Ball' we cannot be 'INSIDE AND BEHIND THE BALL' where we are powerful and effective at delivering a blow. If we are 'In Front Of The Ball' we are 'Dragging The Clubhead Through The IMPACT Zone' (Raking, which is a Stage One or Two Procedure and NOT a Stage Three, Full Swing involving PIVOT or Rotation which are the 'Golf Body Engine'). Being 'In Front' is where we are quite incapable of delivering a sound 'Rear Wheel Drive' blow.

All athletic moves or sports motions, especially those using ball-striking tools, including hockey, baseball, racquet ball, squash, badminton, tennis, hai lai, sithing and sickeling grass, beating rugs and more, 'Physically and Mechanically' ('Newtonianly' or 'Isaacly') require us to 'Produce Power' and 'Do Work' properly. If we fail to do so we will come to know what '**Power Leakage**' is first hand. 'Power Leakage' is very inefficient! 'Energy Transfer' is sloppy! This is the 'Curse' of aspiring 'Golfers'!

'Golf' requires that we are somewhat 'Physically and Mechanically Efficient' to strike the 'Little White Ball' solidly, score better and have more 'FUN'! There is that 'Three Letter Word' again, the one which prevents the 'Four Letter Words'.

"FEELING INSIDE AND BEHIND THE BALL"!

Good words!

Good Feelings!

"Welcome Aboard!"

"Enjoy The Ride!"

Q2)

'The quality of SET-UP
dictates the quality of IMPACT and SEPARATION'.

C11]

THE SECRET of AFT-TILT

You will recall the 'Secret of Gate-ing' which is a subchapter or sub-topic under the very specific '10 BASICS', '5 SET-UPS', 'POSTURE, GRIP, STANCE, BALL LOCATION and ALIGNMENT'. If not, turn to your favourite INDEX and go on a pleasant 'Literary Hunting Trip'. Now or soon hereafter may be a good time!

'STANCE and ALIGNMENT' absolutely 'SETS-UP and Controls' or regulates 'PIVOT or ROTATION'.

Too wide = Less Rotation (and Balance)

Too narrow = Less Rotation (more delicate Balance)

Too Closed Alignment = Less Rotation (and Balance)
(as it directly relates to Target Line)

Too Open Alignment = More Rotation

Too Square a Target Foot (Less Rotation and Balance)
(as it directly controls the Target Hip Gate)

If a gate is closed, Walking or Turning THROUGH it will become a difficult task! Just try walking through a closed door or gate!

Well, 'AFT-TILT' is key to your being to make a solid repeatable 'ON PLANE' 'Full Swing'. The bigger the Swing gets the more 'Aft-Tilt' you will require. It helps you to 'Rotate Weight Onto Your Brace Side'.

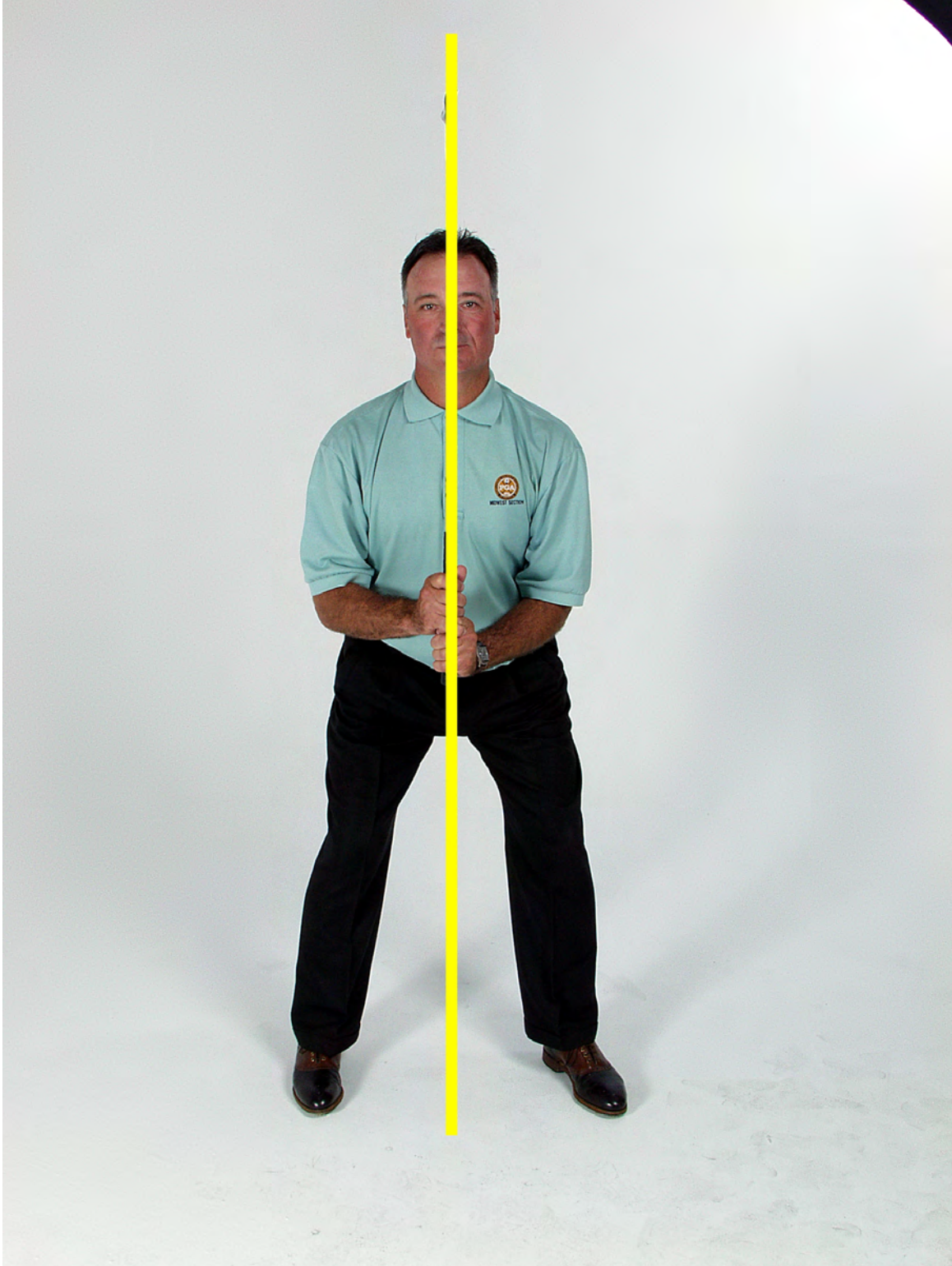
C12]

GATE-ing

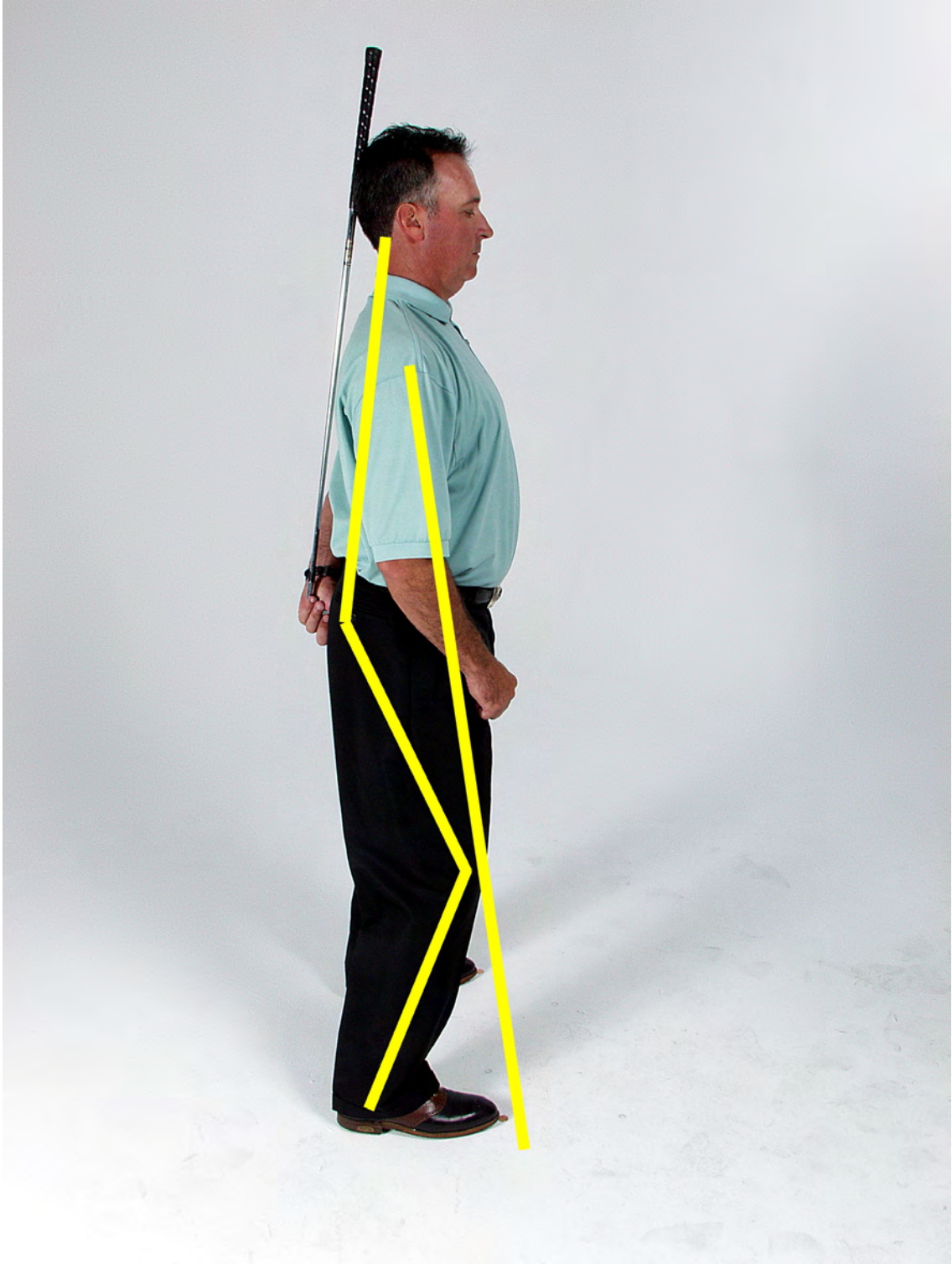
Soon, you need to fully understand this little
Physical Facet of making the good Golf Swings!
We'll help!

1) **NOW TO THIS 'AFT-TILT' TOPIC:**

We know and understand the 'Forward Inclination or Lean' that's so useful in our Set-Up Routine. 'Forward Inclination' allows or enables us to have room for our Arms to pass in front of our bodies and to 'Swing the Clubhead' on the 'Inclined Plane' which is so necessary to get the 'Clubhead' on the 'Butt of the Ball' while it is at rest either on the grass or on the tee.



Vertical Spine, Body On (BO)



Vertical Spine, Down The Line (DTL)



Forward Inclination, Down The Line (DTL)



Forward Inclination, DTL, Flatter Spine Axis

The Golf Ball is not ready for us at 'Waist High' such as a baseball may be. I want to put it to you here that often baseball hitters have to 'Go For the Ball' by either reaching OUT slightly or even reaching DOWN slightly. If they lower their bat from level to below level, they are becoming a swinger on an 'Inclined Plane', a Plane that is 'Tilted Down' below level.

You have heard me say before, the similarities of baseball to Golf are much greater than generally perceived. I do not have to tell you how many times I have been told that 'My Baseball Game is screwing up my Golf Game' or vice versa. You see, I know it is both untrue and likely just an excuse for poor performance in either or both!

Sage old Country Boy, this teacher!

So we know what 'Forward Inclination' is.

It might stand to reason that 'AFT TILT' is just the opposite. Wrong! For a moment, let us rename this 'Aft Tilt' to 'Side-Tilt'; tilt to the Brace Side; opposite to the Target Side.

This Leaning to the Brace Side is called '**AFT TILT**'.



AFT TILT, Body On (BO) Notice 'Flared Target Shoe' (Open)

2) **THE BENEFIT OF AFT TILT:**

'AFT-TILT' affects 'Clubhead PATH'. 'Aft Tilt' is fundamental to Swinging the 'Brace Arm' or Golf Club 'Inside-Out'. 'Aft-Tilt' is an essential 'Component' to this 'Inside-Out Clubhead PATH', especially with the 'Long-Shafted Clubs' with their 'Flatter Swing Planes'. 'Shorter-Shafted Clubs' travel naturally in a more 'Upright Swing Plane'. (see Characteristics Chapter)

It is often a missing ingredient and may very well be about the 'Secret of Swinging Inside-Out' and producing that 'Oh-So Famous' big ball draw we all hear so much about, over-rated as it may be! **Aft Tilt may be the 'Secret to Swinging ON-PLANE', as opposed to being 'Above the Plane' or 'Below the Plane'. 'Casting', 'Being Over the Top', 'Outside-In' and the like are all directly influenced or related to this subject of Swing Plane and Aft-Tilt. 'AFT-TILT' sets-up, promotes or even creates 'Inside-Out' Swing Plane, especially in the longer-shafted golf clubs. The Driver is a great example.**

A LITTLE MEANINGFUL PIVOT DRILL:

Spend just one more moment with me on this 'Aft-Tilt' topic to see if we can shed a little more productive light on it. Picture yourself, or better still, actually do this 'Drill'. Come with me outside to the 'Short Game Practice Area' where we work on 'Side Hill Lies'. Here we are! Can you feel the scene? Of course!

Stand on a side hill with your 'Brace Hip' on the 'Uphill Side' so your are facing across the slope feeling like you are going to fall to the 'Target Side'. Now make a 'Target Legged Drive' and turn towards the 'Brace Uphill Side' just as you might do in your 'Load or Coil Turn' in the 'Back Swing'. There is considerable 'Resistance' in the 'Rotating Uphill Motion'. It does not flow like you would like.

Now turn the opposite way so that your 'Target Side' is facing uphill. Make the same 'Brace Coil Load Turn' now to the downhill side. There is very little 'Resistance' and you can make it with ease and thus produce the necessary 'Brace Leg Drive; to propel yourself up the hill. Resistance is the focus.

When 'Coiling or Pivot Loading' towards and 'Uphill or Elevated Hip', you are going to experience difficulty where ease of 'Coiling' is the objective.

When the 'Brace Hip' is above the 'Target Hip' and you are turning uphill, the **'BRACE HIP IS IN THE WAY'** of the advancing but trailing 'Target Hip'. Something in the way provides 'Resistance'.

So, with this having been said and exhibited in the form of a 'FEEL Drill', you might now better understand what I about to tell you.

At 'Address Ready' the hips are close to level except for the fact that the Brace Hand's being below the 'Target Hand' which causes the 'Brace Shoulder' to be slightly below the 'Target Shoulder'.

The Shoulders are slightly naturally 'Aft-Tilted' due to the 'Grip'.

Now we actively increase our 'Aft-Tilt' by 'Kicking The Brace Knee Inward' slightly. You know, this is called **'IMPACT FIX'** which is Swing Sequence #1b in Swing Segment #2B. Remember that the 'Base Of The Pivot or Coil is the Medial Head of the Brace Femur' or the inside of the 'Brace Knee'. This is why you hear so many instructors and teachers speaking of 'Feeling' like you are stepping on or pressing down upon a pebble under the 'Inside Of Your Brace Foot' or further **'Feel Like You Have A Golf Ball Under The Outside Of Your Brace Foot'**. Have you ever really tried to place a 'Little White Golf Ball' under the outside of your 'Brace Foot'. Good luck! It feels more like a basket ball!

Back to the focal point of the 'Medial Head Of The Brace Knee' and its part in promoting free 'Rotation to the Brace Side'. We wind up about that point, or this is what I personally 'Feel' and focus upon. You will recall my saying that you should **'STEER SO YOU CAN CLEAR TO THE TARGET SISE'**. Well Aft-Tilt enables the 'Brace Hip' to rotate back and out of the way of the 'Advancing Target Hip' almost in the 'Steer So You Can Clear' vane. When we are fully 'Brace Rotated To Coil', our 'Weight Distribution' is onto the 'Brace Foot Towards The Heel'. Makes good sense if you simply picture your 'Mass Location'. It has turned to the 'Brace and Back' over the 'Brace Heel. If you try to distribute it anywhere else you will run into serious problems accomplishing a 'Proper Comfortable Balanced Coil' and the results will unavoidably become an imbalance!

This 'Hip Plane' and 'Aft-Tilt' aspect is important. It is vital to promoting a 'Shallow Angle Of Attack' necessary for your 'Long Shafted Clubs', especially when striking a 'Teed Up Driver Ball'. You must 'Sweep The Ball Off The Tee' and not 'PINCH IT OFF THE TEE' as you would do with your 'Short Irons' off the grass! If the 'Target Hip' were to be low at 'IMPACT FIX', the 'High Hip Would BLOCK The Back Swing Load Turn'.

So a 'High Brace Hip' tends to 'BLOCK the Back Swing COIL'.

We are soon going to discuss 'GATE-ing' and this 'AFT-TILT' is very much about 'Opening the Brace Coil Gate'. Your 'Hips Rotate Optimally In Both Directions' when they are level. It is for this reason that, during the 'Firing Period or Duration', when we powerfully 'Rotate Targetward' our 'Aft-Tilted Hips' change their 'Plane' from 'Aft-Tilted' back towards level. If you 'Tilt' to the 'Target Side', you will tend to beneficially 'Open Or Free The Hips To Turn Through The Target Side' while 'UnLOADING'. The dropping or releveling 'Target Hip' essentially makes room for the now advancing and driving 'Brace Hip' all the way to 'Squarely Facing The Target' and beyond for those of us who have the flexibility to 'Rotate The Lower Body Machine' to that degree. Work on your flexibility a little every day!

3) **PICTURE THIS!:**
 ('FEEL' this)

Stand erect; straight up 'CHIN Tallish and MATADOR PROUD' with no 'Forward Inclination'.

Hold your Arms out, Brace and Target sides, shoulder-high, level or horizontal to the ground and ALIGNED with your Shoulders.

Now do three exercises or Motions:

- i) Rotate your Spine (PIVOT) Brace Side back to Square and then to the Target Side. In the forward turn, 'Your Brace Hand And Arm Movements Are 'Outside-In''. In other words your Brace Hand and Arm moves forward towards and even across the Foot and Target Lines. We do NOT want our Clubhead to travel in this Direction and on this Plane.

- ii) Tilt to the forward or Target Side about 30 degrees. Your Target Hand and Arm will be 'Lower' than your Brace Hand and Arm. Rotate your Spine (PIVOT) first to the Brace Side and then slowly forward. **'Your Brace Hand And Arm Movements Are Certainly, Markedly 'Outside-In' or 'Over-the-Top'**. This the 'stuff' big Slices are made of!

NOW

- iii) **'AFT TILT'** about 30 degrees; to the Brace Side. Your Brace Hand and Arm will now be 'Lower' than your 'Target Lever Assembly'. Rotate your Spine (PIVOT) first to the Brace Side and then slowly forward. **'Your Brace Hand And Arm Movements Are Clearly, Markedly 'Inside-Out' or 'Under the Top'**. This simple 'Component & Procedure' will generally NOT support Clubhead Path that is 'Above the Plane'. This is the 'stuff' gentle draws' to even the not-so-good 'Snap Hooks' are made of.
- iv) You have now FELT this 'Necessary Reality' for proper Golf Swings. Remember it. Make it your 'Remembered FEEL'. Enjoy the benefits!



Tether Ball Rotational Planes, Body On
Elevation Level Levers



Tetherball Pole Rotational Planes
Almost Level Levers - A little Pivot Coil



Tetherball Rotational Planes
Fairly Level Lever Assemblies
A Little Pivot Release - Impact
Swing Sequence #8



Tetherball Rotational Planes ... Body On
About 45 Degrees Of Spinal Aft Tilt



Tetherball Pole Rotational Axis ... Body On
About 60 degrees of Spinal Aft Tilt

4) **TURN BRACE - TURN TARGET:**

When properly Set-Up in this 'AFT-TILTED Manner', you will simply need to 'Turn Right and the smoothly Turn Left' to accomplish easier contact, IMPACT and Compression and control of your Line of Comperssion.

Golf is simply about such basic, relatively easily performed Procedures; that is once the Pre-Selected Components are Set-Up to accomplish the Task!

5) **WEIGHT DISTRIBUTION:**

'AFT-TILT' affects 'Weight Distribution' to a degree so we had best consider it for a moment.

The Brace Hand's being generally 'Below the Target Hand' in the 'Full Swing Procedure' means that the Brace Shoulder will naturally be 'Below the Target Shoulder'. The only way you can prevent this or set it up 'Out of Natural Balance' is to position the Shoulder purely 'Level' and not allow them to assume their natural position of sloping slightly uphill Brace to Target Side.

If your Brace Shoudler is slightly Low or Below the Target Shoulder, your Weight will naturally be slightly to the Brace Side as well. The Upper Body Machine, properly Set-Up at Address Ready, is slightly 'Aft-Tilted' Weight too will be slightly 'Aft-Tilted'. You, if you have been involved for very long in this Golf Game, either as a 'Player & Student' or as a 'Teacher & Student' (You are always the combination. We never stop learning.), will have herd or even spoken the words, 'Your weight should be even or equally distributed between your front and back feet at Address'. The intention is good. The statement is with good intentions. But the truth is otherwise! Properly Set-Up your Weight will be slightly towards the lower Shoulder which is the Brace Shoulder, or to the Brace Side of the entire 'GOLF Body Machine'. Your Weight will NOT be equally shared between the front and back feet but slightly towards or favouring the rear foot. This is a distinct 'Full Swing Procedural Benefit' as you will not have to Rotate against your Weight but toward your Natural Weight Distribution.

If your 'Spinal AFT-TILT' is '**ZERO**', your Weight Distribution will be about neutral, even if your Brace Hand is below your Target

Hand. If your 'Spinal TILT' is either Forward or AFT, your Weight Distribution will then be either Forward or AFT.

If you SET-UP 'Forward-TILTED' (Weight Forward Loaded), your Clubhead 'Angle of Attack' will be quite steep both in the Back and the Front Swings. You will also likely be 'OUTSIDE-IN Clubhead PATH' as well.

INSIDE-OUT Clubhead PATH is promoted and supported by AFT-TILT. So, setting your Weight about 60% to the Brace or AFT Foot will promote this INSIDE-OUT Clubhead PATH, as well as promote a nice 'LOW & SLOW, DEEP FLAT & WIDE' fist 5 inches of the Take-Away producing a good Clubhead Trajectory through the Ball THROUGH the IMPACT Zone; in other words, a nice LEVEL 'Angle Of Attack' in both the Back and Forward Swings, allowing the Clubhead to do its job without some of the inherent and common disadvantages that occur, including the 'Pick-Up Inside Take-Away' which naturally leads to the 'CHOP'.

FORWARD TILT OR INCLINATION:

(This is 'AFT-TILT's Sibling)

When we discuss 'Aft-Tilt' can the topic of 'Forward-Tilt' be far away? No! So, for a moment, we now know the results of 'Aft-Tilt' so let us once again define the results of 'Forward-Tilt'. They are: 1) Reduced Load Coil to the Brace Side, so a 'Reduced PIVOT, 2) Less 'Weight Shift' the the Brace Side, 3) a 'Steep Angle Of Attack and 4) a Steeper or More Vertical Swing Plane.

As well, the 'Steeper Angle Of Attack' tends to prevent or discourage the 'Draw-Hook Ball Flight' and promotes some 'Fade-Slice' depending on your overall 'Hand Delivery Path' and 'HIP DELIVERY PATH'.

So, deliberate 'Weight Distribution Forward' likewise promotes this 'Steeper Angle Of Attack' and thus, somewhat the 'Fade Ball Flight Shape', especially in the longer-shafted clubs. Of course, the shorter-shafted clubs require or provide a 'Steeper or more Vertical Shaft Plane' at 'Address or IMPACT FIX' (Ball closer to your Feet) so they naturally tend to be straighter and produce more 'Fade than Draw'.



Hip Delivery Path & Plane, Swing Sequence #5, TOB, BO



LBM Load Un-Coiled, Pivot Released, Up The Line (UTL)
Target Toe Open, Targe Hip Released



Power Line Delivery Sequence, ALSDR, Swing Sequence #10,
Brace Shoe Released, Up On Toe, Brace Leg Drive Spent



Pivot Axis Coil Released, Swing Sequence #8a, Chase,
Solid Lever Extension. Both Levers In Line



Coil Fully Accumulate, Load, Store (ALS),
Lateral Bump Occurring, Muscular Release (TAR)

6) **HOW LONG? :**

... do we keep this 'AFT-TILT' and 'FORWARD INCLINATION' that we Set-Up in the Spinal Crankshaft during the entire Golf Swing, both Back and Front?

What you 'SET-UP' you retain in the entire 'Back Swing' and maintain it all the way 'T H R O U G H' the 'Front Swing' until you are fully or have fully completed the 'IMPACT Zone'. In other words, you have a 'Constant SPINAL SET or ANGLE' in Swing Segment 2B, 1B, 1F, 2F and 3F which is the 'Follow-Finish Segment' where your Brace Foot PUSH and HorsePOWER are turned off and you are 'Floating THROUGH to completed 'Breathing out' 'FINISH' (Swing Sequence #9 or #10).

7) **BALL LOCATION & AFT TILT :**

Having your Ball too far back in you 'STANCE' will automatically place your 'Brace Shoulder' and entire 'Brace Side' higher than is desirable at Address. Thus the 'Target Shoulder' will be too low. Your 'Set-Up Shoulder Plane' will be faulty. You need a 'Brace Shoulder Low SET-UP Condition or Component', especially with the 'Full Swing' using 'Long Shafted Clubs'.

'Ball Location' may be the primary 'Cause' of this problem, but the secondary cause, 'Off Plane Shoulders' will produce an 'Effect' of getting the Golfer to 'Lean or Weight Load' onto the Target Side as well. We sometimes call this the 'Reverse PIVOT' or having a 'Forward-leaning Upper Body' rather than and 'Aft-Leaning Upper Body'.

This 'Forward Leaning Upper Body' then directly causes the 'Shoulders to TILT or 'Rocking Chair' in the Backswing rather than to 'Rotate' on top of a 'Properly Forward Inclined and Aft-Tilted Spine' which must be 'Set-Up' at Address. This combination of problems creates a pair of problems that I call '**ROCKING AND BLOCKING**'; meaning that the 'Shoulders are 'ROCKED' atop the 'Spinal PIVOT' rather than being 'ROTATED' atop the 'Spinal Crankshaft similarly to the 'ROTATING HIPS'. The 'HIP PLANE' is slightly 'Flatter' than is the 'Shoulder Plane' about the 'Rotational or Vertical Axis'. In other words, the 'Hips Turn relatively Level', while the 'Shoulders Turn on a slightly more Up-Sloped Plane'. This is also due to the fact that the 'SET-UP Forward

Inclination' of the actual 'Horizontal Hip Axis' is very slight. The 'SET-UP Forward Inclination' of the 'Vertical Spinal Axis' is significant. When viewing as many 'Video Analyses' as my staff and I do on a daily basis, seeing the 'SET-UP and EXECUTION' from the 'Down-the-Line Perspective', this 'Forward Inclination' is apparent. Depending on the 'Club-in-Hand' and the 'Physical Make-Up of the Individual', the 'Spinal Inclination Angle to Horizontal' may range from 30 to 45 degrees. In the same mathematical realm, the Shaft Plane or 'Angle of Inclination to Horizontal' will be in the range of 90 degrees to the 'Spinal Axis'. The 'Forearms', attached to the Golf Club by the Hand Clamps, are also at an angle that ranges in the neighbourhood of 45 degrees.

You can hereby recognize that we are truly a 'Golfing Machine' with very clearly seen and defined 'Levers with Angles, Arcs and resulting Circles' (the Geometry of the Circle) operating under the 'Laws of Physics' (Physics of Rotation). Now if we only had the 'MOTION Reliability' of a machine!

8) **INEFFICIENT SPINE ANGLES:**
 (Get Your Tilts Right)

This 'Improperly Set-Up Spine Angle', discussed above, then produces and excessively 'Steep or too Upright of a Swing Plane'.

Interestingly, when we generally get too much 'LIFT' in our Lever Assemblies, out of the balanced 'LIFT - ROTATIONAL Ratio' so necessary in the creation of a great Golf Swing, we produce a 'Swing Plane' that is too 'Upright'. This is a 'Lever ACTION Error', but here we have a scenario where we still get too much 'Lift or too Upright a Swing Plane' with a different 'Set-Up and Procedural' cause. Actually the error in 'Spinal Forward Inclination and Spinal Aft-Tilt' are '**COMPONENT ERRORS**' whereas the 'Lift to Rotational Imbalance' is a '**PROCEDURAL ERROR**'. Remember, 'Components' are the 'TOOLS' while 'Procedures' are the 'MOTIONS or ACTIONS' we apply to them, or what we do with them.

When the '**BALL LOCATION**' (Bold & Capitalized as it is one of our very important '**5 SET-UPS**) is ideally placed, or has the correct 'Placement' (Forward in **STANCE** or 'Claviced'), the Clubhead has every natural opportunity to 'Make Contact' (IMPACT) with the Ball at just the right time and on just the optimal 'Angle of Attack'. This is a perfect recipe for 'Golfing Success'. You'll love the taste!

Q3)

'The good golfer 'FEELS' his swing all in one piece.
It is produced by a 'Psycho-Physical Unison' and its control
is **Outside** the mind of the player.

Any control that is within the mind of the player
is subject to the 'State of Mind' and is therefore unreliable.'

Percy Boomer

It is the firmly-based opinion of this teacher that the actual Golf Swing, the 'Backward and Forward Motion of the Clubhead', takes place in the 'Subconscious Mind'.

Let it remain there, for if we Interrupt its 'Macro Execution', we shall certainly make it run amuck. Just 'Let It Happen'.

'YOU CANNOT THINK YOUR WAY THROUGH THE GOLF SWING'. Too many things happening in too short a time. The 'Chain Reaction' need only to be Set-In-MOTION, the fuse be lighted. The rest is in the hands of a 'Higher-Being'. You must get '**Instinctive or SubConscious**'.

You remember my analogy of the proper 'Golf Swing' being like 'a String Rosary Beads'; everything smoothly interconnected by an uninterrupted central string. Operate '**IT**' as such and you will reduce 'Tension' and make better swings.

The 'Golf Swing' is a 'SubConscious Mental & Physical Event'.

You CANNOT '**Make IT Happen**'.

You MUST '**Let IT Happen**'.

Prudent Practice Makes Permanent

FEELS LIKE

If '**FEELS LIKE**' and '**LOOKS LIKE**' are the same , or very close to the same, your 'FEELINGS' may be true and reliable. The case will be '**IS LIKE**'. 'FEELINGS may then Confirm Reality'. But remember, an accurate awareness of 'FEEL' has to be earned through 'Knowledge'.

A key here is to generally confirm 'FEEL Visually'. You can use a mirror or, if you are fortunate enough to have access to or own a state-of-the-art video camera system, perhaps through a 'well-equipped teacher', he or this will prove to you that 'Seeing Is Believing'. The recorded image never tells lies. The trick herein is to be able to see the truth and then benefit by its message and adjusting to truth.

You are closer than you think to starting on your journey or, having started, heading down the right roads as crooked as they might have seemed to date. There is a personal 'Destination'. '**IT**' is attainable.

EDUCATED FEEL:

We have often referred to the comment '**REMEMBERED FEEL**' which originated for me from my great inspiration Percy Boomer.

All said and done, we create 'Macros' or 'Brain Programmes' that control, direct and execute symphonies of 'Muscular Movements' where the instruments are indeed our bodies in, God love 'em, their various states of disrepair. No disrespect meant, of course, to those '**Flat Bellies**' who grind their way up the ladder ending at some level of tour play.

We DO NOT THINK OUR WAY THROUGH the 1.4 to 2.0 SECOND GOLF SWING.

We do not 'Make It Happen'. We train and program properly and then 'Let It Happen'. If we stand in the way of this Reflex Action, we will 'Interrupt the Movement' and the music will be discordant. You know, sounding like 'heavy metal', like 'punk rock', like some of the new era stuff that some of the new era have come to misconstrue as music, when it is only 'NOISE' designed with no melody, no concordance and bad messages ... but I am no music teacher!

I truly want you to become a '**REFLEX GOLFER**'. That is a trained 'GOLFING Machine' which simply looks at the Target, Visualizes his desired task, consciously and subconsciously organizes the necessary Components and then applies them to the appropriate 'Pre-Selected Procedures'. You know the story!

When the GOLF Swing is '**SET-UP**' (**Passive**) it should;

- 1) **FEEL LIKE** you are CHIN Tallish and '**MATADOR PROUD**'. You know, 'Athletic Ready' with adequate space between your Hip Sockets and Sternum to get the Swinging Motion of the Clubhead accomplished, Ball in the way, Of course.
- 2) **FEEL LIKE** you are 'Relaxed' and 'Comfortable'. The only parts of your bodies that should be 'Tense or On-Deck' and very focused are your 'Captain EYES', 'That Tallish CHIN' and your Pre-Loaded Brace Toe which stimulates or regulates the PIVOT, through the activity of the 'Potentially Energetic' Brace Leg and Brace Side of the Golfing Machine.
- 3) **FEEL LIKE** you are breathing 'Deeply IN and OUT' which allows the Body to stay ready but relaxed; ready to respond.
- 4) **FEEL LIKE** you are 'Battle Station-Ready Brace Side'. I think GOLF is a 'Right-Sided Affair'. Your Brace Hand should be in-place and very softly ready to perform the Take-Away of the Golf Club in 'Smooth' conjunction with the Brace Shoulder and Elbow.
- 5) **FEEL LIKE** the Brace Shoulder is ready to simply 'Move Back' in a relatively level Path, allowing the Brace Lever to take the 'Target Lever Assembly' with it, the Hands travelling 'Back and Up', softly, simultaneously and naturally to the Brace Hand - Brace Shoulder position.
- 6) **FEEL LIKE** you are ready to 'Load the Brace Side' on and around the 'Brace Post' whose base FEEL LIKE it is the

Medial Head of the Brace Femur; that is the bony knob on the inside of your Brace Knee. This makes you FEEL LIKE your weight is concentrated on the Inside of your Brace Foot or at least stimulated to the Brace Toe. (PIVOT PreLoad)

- 7) **FEEL LIKE** you are properly Set-Up on your 'Foundation Feet' with weight evenly and 'Comforatbly Distributed' which is about 50:50 with short to mid Irons and slightly more on the Brace Foot for long Irons and the Woods. In these longer Tools, you will FEEL more 'AFT-TILTED'. The Target Side FEELS slightly higher than the Brace Side. This promotes proper Swing Plane and Clubhead PATH, generally Inside-Out.

- 8) **FEEL LIKE** you are 'Inside and Behind the Ball'.

- 9) **FEEL LIKE** you are 'Ball Aware' and 'Pin Target Focused'. The many Tour Pros I have had the pleasure of coming to know all say they are almost totally focused on the Target and have few or 'NO Preoccupation Thoughts'. Single-purposed.

- 10) **FEEL LIKE** your '**5 Axes Are Parallel**', the Feet, Knees, Hips, Shoulders and Ears are all ALIGNED in the same direction, especially those Shoulders whose closeness to the Hands and Golf Club give them a 'Front Row Seat'. You are better-served with this ALIGNMENT's being slightly 'Open' rather than 'Closed'. 'Openness promotes better Rotation or PIVOT by getting the Lower Body Machine more quickly 'Out of the Way'.

- 11) **FEEL** 'Firm-Footed' with your STANCE properly organized.

- 12) **FEEL LIKE** 'SET-UP' is repetitive, natural, sequential and Comforatble. When you use the '**5 CONTROLS**' as your ally in this process, you can rely on it's being correct; trusted so you can execute in a 'Trusting Subconscious Mentality'.

- 13) **FEEL LIKE** your 'Butt is Sticking Out Slightly Behind' so you are 'Forward Inclined' with the weight on the Balls of your Feet, with softly 'Flexed Knees'. This is 'Athletic Address Ready'.
- 14) **FEEL** balanced and 'Brace Posted or Resistive' for all 'Full-Swing or Stage 3 Procedures..
- 15) **FEEL LIKE** the GOLF Club is firmly Controlled by both Hands with equal 'Grip Pressure'. The Back of the Target Hand FEEL like it Controls the Clubface while the Brace Hand Controls the Toe of the Clubhead. It takes out the 'Clubhead LAG'. FEEL LIKE the Hands are ready to Work Together at a Single-Minded task.
- 16) **FEEL LIKE** your 'Target Lever Assembly' is 'Hanging from the Target Shoulder Socket'. I liken this to its FEELING LIKE a 'Dead Rope' that is 'Moved Away' by the Brace Hand. Remembering that this Primary Lever Assembly is the 'Spoke in the Golfing Wheel' and it neither changes length nor 'Powers or Dominates the Motion' any more than the wheel Powers or dominates Motion in the horse-drawn buggy.
- 17) **FEEL LIKE** you have also got a 'Dead Target Elbow'. When you can FEEL it you are likely 'In Tension' and will Shorten Your Pre-Selected Swing Radius causing you to 'Top the Ball' or to prevent this, to 'Drop Your Tallish CHIN' and Hit Fat. Not Cool!
- 18) **FEEL LIKE** the Brace Knee is 'FLEXED', which it remains at all times throughout the entire Swing, Back & Front.
- 19) **FEEL LIKE** both Arms, both Lever Assemblies, are simply 'Hanging' from the Shoulder Sockets and not 'Reaching or Jammed' or crowded to the Body. This creates an 'Up FEELING' in the Upper Body Machine with a 'Down FEELING' in the Arms and Hands.

- 20) **FEEL 'TENSION Free'**.
- 21) **FEEL 'CONFIDENT'**.
- 22) **FEEL 'Confident and Artistic'**.
- 23) **FEEL LIKE I 'Belong Here & Now'**; in the Present Tense.
- 24) **FEEL LIKE** you 'CONTROL the Golf Club' with primarily the last three fingers on the Target Hand (the Helpers), with the Thumb and Index Fingers (the Pinchers) being quite 'Passive'.
- 25) **FEEL 'Light-Armed'** so that you can FEEL the Clubhead. FEEL the Steel throughout the entire Golf Swing.
- 26) **FEEL** a '**FLAT TARGET WRIST**'.
- 27) **FEEL 'Weak & Soft GRIPPED'** in Short Irons and Approach Shots, the Chips and short Pitches, while 'Stronger & Firmer GRIPPED' in strokes that have to move 'More MASS', such as necessary with Balls in deep rough or buried lies on the beach. Long Distances do NOT mean 'Squeezing Harder'. If you either do not know this or have not discovered it, you had better do so without further delay. The Chips and short Pitches are very 'loose and quite fingery' in Set-Up. These two Procedures are Powered mainly by the Rocking Shoulder Action than by PIVOT, very much as is your Putting Procedure. '**SOFT-HANDED**' is the ticket!

When the Golf Swing is '**IN MOTION BACK SWING**' (Active), it should;

- 1) **FEEL LIKE** the Upper Body Machine starts the Swing Back and the Lower Body machine starts it forward. I am of the opinion that, for some, the picture of the Brace Shoulder,

the Brace Elbow, the Brace Hip and the Brace Hand's all 'Transporting' the Clubhead AFT in one Soft, Balanced and Smooth 'One Piece Take-Away' may be the best picture to convert into a FEEL. I FEEL LIKE my 'Target Lever Assembly' has a 'DEAD Elbow or that Dead-Rope FEEL'. My Body is 'In CONTROL' and my 'PIVOT does all the Horizontal WORK' (Carousel). The Upper Body Machine produces all the Up & Down Motion (Ferris Wheel or Tilt-Whirl which is Arms Round & Round on an Inclined or Tilted Plane).

- 2) **FEEL LIKE** the Swing has Depth, Flatness and Width (EXTENSION) which causes the Clubhead to naturally travel in the widest Comfortable Arc. This maintains the Fixed Length 'Spoke in the Rolling Wheel' or the IMPACT FIX Swing Radius throughout the entire Back and Front Swings.
- 3) **FEEL LIKE** your Head is on top of a slightly 'Forward Inclined Spine' with constantly 'firmly-flexed Knees'. The Brace Knee is **NEVER STRAIGHT** at any time in the entire Golf Swing, back or forth.
- 4) **FEEL LIKE** the Clubhead and Clubshaft move on a 'PIVOT CENTERED and CONTROLLED' PATH and Swing Plane that is constant and can be repeated at will.
- 5) **FEEL LIKE** the Backswing creates TORQUE, Coil and Resistance in the Lower Body Machine that naturally, Centrifugally, starts and assists bringing the Clubhead forward and Extend the Primary and Brace Lever Assemblies, the Upper Body Machine, D.O.F.T. Down-the-Line towards and Through the Target. This FEELS like we are 'Throwing the Clubhead or 'Slinging the Clubhead' out and away from our bodies.
- 6) **FEEL LIKE** the Rotation of the Swinging Motion naturally 'Transfers Weight' back and forth, to and from the Brace Side. This make you FEEL like you are swing forward from 'Back, Inside and Behind the Ball.'
- 7) **FEEL LIKE** the natural 'Wrist Cocking Action' of the Hands

and Forearms in the backswing and early frontswing is Comfortably held until late in the PreIMPACT and IMPACT Zone. In a properly PIVOT-generated, 'the Centre Turning the Outside', Motion, the Hands will retain Wrist Cock to late in the IMPACT Zone. The fact is that the early HIP MOVE forward that I call 'the BUMP', (a useful Lateral Slide), 'SETS' the Wrist-Cock to its maximum angle as a result of Direction Change and Resistance or Yield to Momentum. I FEEL the Clubhead gently hit me in the Wrists, Forearms. Elbows and Slightly in the Shoulders in the 'Clubhead LAG PRESSURE' manner as Newton predicted and I have become to expect.

- 8) **FEEL LIKE** the swing 'Finishes' with the Brace Side closer to the Target than the Target Side. Your Total Body Machine must FEEL Spent and having returned to ZERO ENERGY or Equilibrium.
- 9) **FEEL LIKE** you are staying at the same height throughout the entire Swinging Motion, CHIN Tallish and Matador Proud. You will actually get somewhat Taller when your Brace Foot raises off the ground to the 'Tap the Toe' position. This is Brace Toe Release which produces Head Release accompanied by a very relaxed 'Breathing Out' through the entire Golf Swing.
- 10) **FEEL LIKE** your Levers, 'the Upper Body Machine', are very relaxed throughout the entire Swinging Motion both Backswing and Frontswing, right through to Follow-Finish. The Hands and Arms should FEEL as though they '**Sweep & Float Up**' in the Backswing and that they '**Drop**' and go along for the 'Centrifugal Ride', the Slingshot Trip, in the Frontswing right to and T H R O U G H the IMPACT Zone.
- 11) **FEEL LIKE** 'the Clubhead is the LAST THING to Move' and that it has been 'Left Behind' in the nature of the 'Wet Mop' as the Lower Body Machine move forward first. The Golf Swing 'Unwinds From the Ground Up', except for those Stage One and Stage Two Procedures which are 'Less Than FULL SWINGS', neither of which employing any PIVOT. (see 'The Bull Whip Concept')

- 12) **FEEL LIKE** my FEET are very active in the 'Execution'. This is so I operate 'From-the-Ground-Up'.
- 13) **FEEL LIKE** I am ever so 'Smoothly Turning the Brace Shoulder BACK (Coiling) while my Hands and Arms are 'Sweeping and Floating UP' without more than a minimum of GRIP Pressure.
- 14) **FEEL** Shoulder Turn, '**One Motion UP**' to the Top Of Backswing, or Brace Hand to approximately the Brace Shoulder, which, by definition, a 'FULL SWING' Clubhead Travel Limit; farther is quite acceptable but not at all necessary. Make sure you do NOT over-extend or over Swing. Too much of a good thing can become a bad thing. An 'Abbreviated backswing is always better than overswinging.
- 15) **FEEL LIKE** the Brace Shoulder or side dominates the Target Sides coming 'Into COIL'. The Brace Shoulder leads this dance.
- 16) **FEEL LIKE** both your Levers 'Swing Back and Up' as a result of a good Shoulder Turn or Rotation-Pivot and NOT that they pull the Body Machine around or along for the ride. If you manage this, you will NOT FEEL like you 'Unwind or UnCoil' from the Top Down. You will FEEL LIKE you 'Unwind or UnCoil' from the Ground UP, a common trait of all players.
- 17) **FEEL LIKE** you Rotate the Brace Hip and Shoulders relatively level.
- 18) **FEEL** '**Balance & Rhythm**'.
- 19) **FEEL** '**Tempo & Smoothness**'.
- 20) **FEEL** '**LOW & SLOW, DEEP, FLAT & WIDE**'.
- 21) **FEEL** '**BREATHING OUT**'.

- 22) **FEEL 'Patience'**.
- 23) **FEEL LIKE** you are gathering COIL & Strength in the Back Swing with 'Plenty of Time' to let it 'Release Smoothly'.
- 24) **FEEL** the Target Shoulder's 'Turning Aft towards and Under the Tallish CHIN'.
- 25) **FEEL** the Brace Hand Wrist Cock and the Brace Lever's Cocking Elbow in the Back Swing. The opposite or Uncocking will be the case in the Front Swing, but in the reverse order or sequence; Elbow Cock out earlier than the naturally-delayed Wrist Cock release.
- 26) **FEEL** the '**Absence of TENSION**' which means an 'Overriding Relaxation' or looseness; Breathing Out.
- 27) **FEEL LIKE** your Thumbs are coming 'Under the Handle' as you approach the Top Of Backswing. This means my Brace Elbow will be generally under my Hands and the Clubshaft. Remembering that the Thumbs are generally On-Top at Address of IMPACT FIX and Under at the Top where you say 'AND'.
- 28) **FEEL** the Brace Knee Flex with the general Firm Load or Snug Pressure at the Medial Head of the Brace Femur-Knee.
- 29) **FEEL 'Long-Armed and WIDE'** half way back and up in the Back Swing. It is a natural continuation of the Take-Away '**LOW & SLOW, Deep, Flat and Wide**' we discussed moments ago. Extension is a general trait of all good swings.
- 30) **FEEL LIKE** there is very little, if any, **Acceleration**' in the Back Swing.
- 31) **FEEL LIKE** your 'Captain EYES' are IN-CONTROL and very responsible for Balance.

- 32) **FEEL LIKE** the Target Side Coils or Loads against the Flexed Brace Knee.
- 33) **FEEL** 'Rotation' throughout the entire 'Full Swing Procedure', that is to the Brace Side then to the Target Side, but FEEL the COIL-ness quite late in the Back Swing. The Shoulders are 'Winding In' the Coil and have to move twice as far, or more, than the Hips. This also should make you FEEL like the Front Swing starts 'From the Ground Up' as it takes place in the 'Reverse Order or Sequence'. Makes sense to this Cowboy. You have to firstly get on the horse before you can dismount the aunry critter!
- 34) **FEEL LIKE** the Clubshaft is 'Swinging On Plane'.
- 35) **FEEL LIKE** the Clubhead has 'Lag Pressure' or that dragging behind 'Wet mop FEEL' which stay in effect throughout the entire Forward Swing in Swing Segments #1F, #2F and #3F.

When the Golf Swing is '**IN MOTION FRONT SWING**' (**Active**), from the Top Of Back Swing starting Down it should;

- 1) **FEEL LIKE** there is a 'Stretched Target Side' at the Top Of Backswing. I FEEL tight or snug from my Brace Shoulder, back and front, across my front chest to under my Target Armpit to the Target Hip region. The inside of my Brace Thigh is in Tension as it is too Rotated or Coiled to the Brace Side. I FEEL the base of this Right Leg Coil ends in the area of the Medial Head of the Femur. My Brace Foot is Toe Pressured and PreLoaded. I FEEL ready to let this 'Load UnLoad' to relieve the Tightness. This muscular Tetanus to Tonus is what physiological Work is all about.
- 2) **FEEL LIKE** the Captain EYES to be very alert and focused on the Ball.
- 3) **FEEL LIKE** 'CHIN Tallish and Matador Proud'.The 'Upper Body

Machine' is quite UP so that the 'Target Lever Assembly' can get Comfortably quite 'Down to the Bottom Of Swing Arc'; pinch the ground under the Ball and take a conservative divot.

- 4) **FEEL LIKE** the Brace Toe Pressure which has alerted the Brace Side PreLoad or Coil that it is about time to UnLoad to the Target Side. The Brace Toe 'Stimulates or Triggers' the Brace Coil and Brace Leg to apply more pressure to support and complete the UnCoiling Procedure. This is a rather naturally athletic Motion or Event.
- 5) **FEEL LIKE** the Three Primary Pressure Points in the entire Body Machine are;
 - a) the EYES
 - b) the CHIN
 - c) the BRACE TOE

The rest of the Body Machine is in a mode of 'Smooth Response' and not one of the old 'Mousetrap Moves'.

- 6) **FEEL LIKE** my 'Pulmonary Rate' has very smooth and quality 'Tempo and Rhythm'. This is where the Golf Swing's 'Tempo and Rhythm' comes from and it is key to success.
- 7) **FEEL LIKE** my 'Breathing Out' (as the Clubhead has been 'In Motion' since the initial Take-Away) is very smooth and quite soft. As the Initial Forward Move begins after the 'Low-Energy or Inertia Change In Direction' takes place, the 'Pulmonary Pressure' increases to match the Brace Side muscular pressure; the increasing Brace Leg Drive must be equal to the matching 'Brace Elbow Extensor Action'. As the Brace Arm drops, the Bent Brace Elbow 'Straightens' soon followed by the 'Late UnCocking of the Brace Wrist' in the PreIMPACT and IMPACT Zones. The Brace Elbow bends in the Backswing and Straightens in the Frontswing through the 'Bottom Of Swing Arc'.
- 8) **FEEL LIKE** I have a 'Steady Head' aided by those Captain EYES 'Seeing the Ball Come Off the Clubface'. 'Steady Eyes'

make for a 'Steady Head'. This 'Steady Head' is often referred to as 'Keeping Your Head Behind the Ball'. I believe this statement is 'In Error and Misleading'. You do NOT have to force your Head to stay behind the Ball. It is SET-UP with the Ball forward and your Spine has some Aft-Tilt. This ensures the Head stay 'In Position' throughout the entire Golf Swing. It is Newtonia Natural as long as you Set-Up properly and understand the simple Concept and Mechanics. Let the Swing Happen. Do Not Make It Happen'. It is also important here to let you know that I DO NOT FEEL my Head as any 'Separate Part' of my Body. It is a key part but, nevertheless, just another part 'Along For the Ride'. I FEEL LIKE my '**Head Floats atop of my Rotating Spine**'.

- 9) **FEEL LIKE** my 'Head' is on top of the 'Pedestal or Spinal Axis'. It is the 'Top of the Body Pile'.
- 10) **FEEL LIKE** the 'Spinal Inclination Forward' is constant with Flexed Knees. The Brace Knee is NEVER STRAIGHT.
- 11) **FEEL LIKE** I have pressure on the Inside of my Brace Foot. This is the result of SETTING-UP 'Brace Foot/Toe PreLoad'.
- 12) **FEEL LIKE** my Hands are 'Soft, Low & Slow, Deep, Flat & Wide' in the Take-Away and Back Swing. The I put it to you that I FEEL really about the opposite sequence and FEELINGS in the Front Swing, with few minor changes.
- 13) **FEEL LIKE** I '**TURN RIGHT - TURN LEFT**', or 'Turn Brace Side and then ReTurn Target Side'. This Move is Brace Shoulder Back with the Hands and Elbow following in the Back Swing. Then it is the target Hip that leads the Front Swing with the Brace Foot Push supporting what the Hips started.
- 14) **FEEL LIKE** the 'Primary Source of Power and Motion' in my Golf FULL-SWING' is in my smooth Rotation or PIVOT.
- 15) **FEEL LIKE** the 'First Front Swing Move' is the 'Releasing of

the Abdominal Coil or Tension' followed immediately by the 'Dropping of the Hands and Levers' right towards the ground. This 'Sets' the Brace Elbow on its journey towards the 'Forward Rotating Brace Hip which, being connected. Is tracking directly with the leading Target Hip.

- 16) **FEEL** 'Breathing Out' with smoothly increasing pressure which matches the Brace Foot Push and the Brace Elbow Extensor Action, followed by the Uncocking of the Brace Wrist.

- 17) **FEEL LIKE** I am Making a smooth progressive 'One Move Down Motion' such as I made in the 'One Move back & UP' just less than a moment ago. It's '**ONE MOVE BACK & UP, ONE MOVE DOWN, OUT, FORWARD & THROUGH**'..... Breathing Out!

- 18) **FEEL LIKE** my weight, through Rotation, is naturally moving forward ultimately onto the Target Foot where and when I can 'Tap My Brace Toe' on the ground; 'Proof of Completed Rotation' and that horrible term we hear so often, 'Weight Transfer'. It is another Motion that you ;Let Happen and DO NOT Make Happen'.

- 19) **FEEL LIKE** my Brace Toe and Foot are '**Connected**' through the Golf Body Machine directly to the Clubhead to and through IMPACT Zone.

- 20) **FEEL LIKE** (at times) that I initiate my Front Swing by 'Planting or Applying Weight' to the 'Lightened' Target Heel (Full Swing Procedures but NOT Less Than Full Swing), by yielding or releasing the abdominal Tension of the Target Side, accompanied by the Pushing of the Brace Foot and Leg sourcing from the Brace Toe and Inside of the Brace Foot. Of course, the Brace Big Toe, last time I checked, was on the Inside of the Foot! Just a bit more of the 'Country Boy' coming out! Please forgive me!

- 21) **FEEL LIKE** I do 'Stay Behind the Ball' but this FEELING was explained just moments earlier. It is no accident and it is not 'forced to happen'.
- 22) **FEEL** very 'Patient and Low-Energy' in the 'Moment of Direction Change', that delicate vulnerable Low-Energy Interval in the Clubhad ORBIT.
- 23) **FEEL LIKE** I am 'Unwinding and Free-Wheeling' forward toward the Target Side, which is where the Target is and the Ball is about to go.
- 24) **FEEL LIKE** the Lower Body Machine is leading and that the Upper Body Machine is trailing or 'Lagging'.
- 25) **FEEL** 'Centrifugal Acceleration and Release of the Clubhead Down-the-Target Line'; that 'Slining FEELING' to which I so often refer.
- 26) **FEEL LIKE** I have a strong Knee & Leg Drive towards the Pin.
- 27) **FEEL Brace** Knee Flex as a 'Primary Condition or Component' of the good Golf Swing.
- 28) **FEEL** 'Forward Spinal Inclination with adequate AFT-TILT to support an Inside-Out Clubhead PATH; the things Draw is made of and Fade Slice is NOT.
- 29) **FEEL LIKE** 80% of my focus is on the TARGET, with very few other thoughts, any of which must be 'Very Simple Indeed'; simple enough to be processed compatibly with the 'SubConscious MACRO' that is taking place running the entire Golf Body Machine Motion.
- 30) **FEEL LIKE** I am generating POWER and Clubhead Speed THROUGH the IMPACT Zone and NOT at the Ball.

- 31) **FEEL** a smooth burst of Energy, Increasing of Momentum and INERTIA that produces Clubhead Speed, Centrifugal Force, Angular Momentum and that 'Slinging Out of the Clubhead' or 'Free-Wheeling'. What a thrill!
- 32) **FEEL LIKE** I and my entire Body is AIMED and ALIGNED Square or Parallel to the Target Line. A primary FEELING is that the Back of my Target Hand is Square to the Target which assures me that my Clubface will be so at the 'Moment of Separation', when the 'Little White Ball' departs.

'ALIGNMENT GOLF is very REAL GOLF'.

I suppose there may be yet one more area or 'Interval' in the overall Golf Swing with which I might deal. In the '**Ten Swing Sequences**', I refer to the 'FOLLOW-FINISH Segment' so I know it has relevance at this juncture. As well, in the '**FOUR SWING SEGMENTS**' the term 'FOLLOW-FINISH' is used.

When the Golf Swing is '**IN MOTION**' (**Active**), **FRONT SWING**' after IMPACT or Ball Separation, it should:

- 1) **FEEL LIKE** I 'Finish & Hold' to observe and evaluate my results. This process is primary to the 'Learning Process'. You and I need 'Feed-Back', good or bad.
- 2) **FEEL LIKE** you are maintaining the Pre-Set Spinal Forward Inclination with your Brace Knee firmly flexed. Your weight will be 'Comfortably Distributed' on your FEET.
- 3) **FEEL LIKE** you are Rotating To the Target and your Weight is moving forward along with this Rotation
- 4) **FEEL** '**Balance and Relaxation**'.
- 5) **FEEL** '**ALL BREATHED OUT**', '**Following and Finishing**'.

- 6) **FEEL** 'Totally Released or Spent'.
- 7) **FEEL** 'FINISH & HOLD' or 'Bounced Back' if you so choose.
- 8) **FEEL LIKE** the 'post IMPACT Segment' of the Swing is very much a 'Let IT Happen Event'.
- 9) **FEEL** 'Level' in my Hips and Shoulders.
- 10) **FEEL LIKE** I could 'Tap My Brace Toe' on the ground.
- 11) **FEEL LIKE** my Hands are or have finished quite high with my Elbows pointing at the Target.
- 12) **FEEL LIKE** the fronts of my thighs are parallel or even and pointing Squarely at the Target, with the Brace Knee still 'Flexed'.
- 13) **FEEL LIKE** my Golf Swing simply 'UNWINDS'. (see 'The Balsa Airplane Concept' ... 'The Big Body Rubber Band')
- 14) **FEEL LIKE** the overall ROTATION 'Brings My Head Forward Toward the Target' and NOT that I have had to 'Turn It There'. I FEEL LIKE my Shoulders turn or bring my head forward without any additional effort to do so.
- 15) **FEEL LIKE** I am 'Totally Focused on the Target'.
- 16) **FEEL** good about good results and Not-So-Good about the others!
- 17) **FEEL LIKE** you are 'FOLLOWING the Ball Down-The-Line With the Clubhead' so that you can produce 'Straight-Line Ball Flight' that has excellent 'Directional Control' as well as a nice low boring Trajectory. This type of IMPACT, Stright-Line Clubhead PATH, produces 'Minimal Spin-Rate and thus

'Holds The Line'. Minimal Spin-Rate Balls produce minimal curvature and are less affected by those cross-winds we know so well.

Finally, I would like to mention that I FEEL some differences in the 'FULL SWING and the Less Than FULL SWING'. The '**5 CONTROLS**' are 'In Play', 'On Deck and at Battle Stations'.

FULL SWING

- 1) Everything that the Full Swing accomplishes under the heading of 'COIL ROTATION & PIVOT', including 'Brace Toe PreLoad', 'Brace Leg Drive and Pressure', 'Matching Extensor Action in the Brace Elbow' etc., are all modified or Balanced & Matched to suit the 'Components and Procedures' required in the 'Less Than Full Swing'.

In the Full-Swing I FEEL fully Body Wound Up with my Hands and Arms and the Golf Club raised BACK & UP to their Comfortable Limit. I FEEL 'Tight in mostly the inside quads of my Brace Leg with the bottom 'Centre-of-Rotation' being my Brace Medial Head of the femur. I FEEL Brace Leg 'Posted'. I FEEL 'Resistance' in my Brace Side. I FEEL 'Brace Toe PreLoaded' or 'Pressureized' which means it is capable of 'Triggering the Push of the Powerful Brace Leg'. I FEEL 'Athletic Ready' to make the Forward Move.

In all the following 'Less Than Full Swing Procedures', I FEEL the same attributes (Active and Passive) as above, simply less of them. I FEEL '**CLOCKING**' or '**Reduced Limits Of Back Swing Travel**' which makes me 'Confident that I can easily Control the Energy Level, the Inertia and the Clubhead Speed of the 'Hammer Head' at the 'Instant of Collision and Separation'. In being Comfortably SET-UP, I can, at the same time, Control the Clubface AIM and my general ALIGNMENT and PATH. Then, as long as I Pre-Select the correct Ball Location to suit the Components & Procedures, I will have a 'Collision' just at the right Time & Place. IMPACT will be as a result of the proper ORBITING Clubhead. '**IMPACT Will Become INCIDENTAL To The SWINGING**

MOTION'. The Ball will simply and naturally just 'Get In The Way'. I will just FEEL very little other than 'CLICK' and the enormous 'Pleasure' of having made a 'Perfect or nearly Perfect' Golf Shot. What a FEELING of accomplishment! What a thrill! Within reach of all you readers and Golf Warriors.

The 'Less Than Full Swing Procedures' all have the above 'Characteristics or Traits'. These are their 'Fingerprints to Success'. But there are some primary differences worthy of note. You can 'Trust' that the Less Than Full Swings always have the following;

LESS THAN FULL SWING

- 2) PUTTING Procedures (Stage One) have
NO WRIST COCK and NO PIVOT
- 3) CHIPPING Procedures (Stage One) have
NO WRIST COCK and NO PIVOT.
- 4) PITCHING Procedures (Stage Two) have
WRIST COCK and PIVOT.

FULL SWING

- 5) PUNCHING Procedures (Stage Three) have
WRIST COCK and PIVOT.
- 6) FULL SWING Procedures (Stage Three) have
WRIST COCK and PIVOT.

THE VARIABLES:

As the Procedures above get or require more Distance, the Length of the back Swing increases to satisfy our needs. The entire 'Evolution' of the Distance aspect is both 'Smooth and Natural'. It takes both more PreLoad PIVOT Pressure (thus more THRUST and RPM in our ROTATION) and more Swing Circumference or Length of Clubhead travel, generally, to create more Clubhead Speed. Things happen in BALANCE! Thus the faster and farther the 'Inside or Spinal PIVOT (Crankshaft) Turns' the faster and farther the 'Outside or Clubhead, Hands and Arms (The Levers) Turn'. It's that simple!

Don't leave home without this 'Stuff', you here!

This 'Golf Swing' is about '**ROUND & ROUND**' ('Carousel') and '**UP & DOWN**' ('Ferris Wheel') and very little else Physically & Mechanically. It is the '**Geometry Of The Circle**' combined or working in unison with the '**Physics Of Rotation**'. You all by now know the 'Stuff' this is made of 'Inertia', 'Angular Momentum', 'Centrifugal Force', 'Acceleration', 'Velocity', 'Deceleration', the 'Law of the Flail', 'Thrust & Drag', 'Lead & Lag', the 'Target Lever Assembly's being either Lag Out-of-Line (Accelerating), In-Line or Out-of-Line Throw-Away (Decelerating), 'Stable Swing Radius or Unstable', a constant Clubhead ORBIT' etc.

You can refer to your 'INDEX' and search out the chapter and section on 'Swing or Procedure Characteristics'. Herein you will find specific elements that make up the 'Set-Up and Execution' aspects of each 'Procedure'. It is worthwhile knowledge, now or later.

I hope this has been of interest and proves useful in your GOLF growth. It should.

Practise smart!

Play well!

C14]

ON PLANE
'Lift To Turn Ratio'

Firstly, the airline Captain in me necessitates that I inform you that you **'Cannot Ride This PLANE From Vancouver, CANADA To Nadi In FIJI Across And Down The Pacific'**, first-class or coach, with or without meals and drinks, head-phones or not!

Back to business!

1) **ABUNDANTLY CLEAR:**

Before I procede on more 'Short Swing Practice Ball', I want to make it abundantly and poignantly clear that **'THERE IS NO ONE PLANE'** on which the Golf Club Swings or Performs. I generally use the 'Shoulder Plane' and the 'Shaft Plane' as **'GUIDELINES That Creates A MARGIN'** for the Shaft or other 'Golf Swing Performance'. Perhaps the great Ben Hogan made a considerable number of swings 'Up and Down' on the same 'Swing Plane', but he was Ben Hogan. For any of us mere mortals to even attempt to do so is a fundamental error. Such physical goals will provide insurmountable obstacles in the way of our 'Golf Progress'.

Most avid Golfers have read or seen Ben Hogan's book. In that case, you have likely seen the 'Pane Of Glass' that rests on your Shoulders and through which you stick your Head. I like this 'overall image' but it is just that and no more.

Don't get caught in the 'Swing Plane Trap'. Most good people who will read this book will, at least initially, be hard-pressed to 'Conceptualize, Intellectualize and Actaulize' 'Swinging on one Plane'. They are on the safe track, in any case, since **'THE GOLF CLUB DOES NOT SWING ON ONE PLANE'** with but the rarest exception.

Please find a 'Proven Teaching Professional' who knows and understands 'Golf Video Swing Analysis'. Allow this person to introduce you to the concept of 'Swing Plane' but do not get engrossed in any pursuit of 'Purely Perfecting It' as this perfection does not even scientifically exist, when speaking of the average golfer. None of us should even hazard the risk of tinkering we exist in the 'rarified air' that Mr. Hogan breathed. He used

some highly unusual 'Wrist Hinge Positions and Actions' that neither you nor your playing partner will ever truly know or need to know.

'SWING PLANE IS SIMPLY LIFT TO TURN RATIO'

It is the balance between 'LBM and UBM Motions'
The 'SET-UP' and your 'Brace Hand Motion' accomplish it.

2) **FIRSTLY:**

What is this 'Plane' stuff? I think it might be the least understood 'Term and Aspect' of 'Mechanics' in the Game of Golf along with 'Open or Closed At The Top'. These concepts are a bit 'etherial' but real and useful.

Ben Hogan put together a picture of a Golfer standing at 'Address' with his head and neck sticking through a very large square 'Pane of Glass' that rested on his shoulders with the lower end or edge sitting on the floor or ground just in front of his Feet.



MOE NORMAN 'Single Plane' ... Lever Extension Is The Key



Marked 'Base Line', Body On (BO), Dark Blue Line



Marked Base Line Of Plane, Down The Line (DTL)

I still like this picture the best of the general attempts to understand what 'Swing Plane' is in Golf. However, even with this great graphics, most people who attempt the Game do not or never comprehend the notion of a 'Swing Plane'. One must simply, at times, spend more time contemplating the 'Physics and Geometry' of the Clubhead's 'ORBIT or PATH' in order to finally get it. I do not know if I can make it any simpler than the picture, but I shall at least try to give you more range of material with which to attempt a full understanding. Sometimes, when we address all the internal components, get all the chapters read, (the 'Little Pictures') the 'Big Picture' is revealed. The light comes on!

The moon really orbits around the earth on a plane. It follows a concentric circular orbit every day that varies little. This relationship to the centre of the earth is as though the moon were attached with a piece of string whose length never varied much. If you were to create a 'Flat Surface' from the centre of the earth to the moon that was made up of the string line, you would have a 'Solid Disk' like a phonograph record with the earth in the centre hole. You have all seen pictures of the planet with the rings around it. That is what I mean.

The '**Tether Ball**' is another good example. If you were to get the ball 'Rotating' about the top of the pole with some velocity, it would keep the rope tight and the ball would 'Orbit' around the pole on a 'Plane'. Again the straight line from the 'Pivot Hub or Top of the Pole' to the ball, if it were to become a solid, would become another phonograph disk or flat plane.

The '**Phonograph Record**' image can fulfill or replace the Hogan 'Pane of Glass' if we were to envision ourselves standing in the centre hole of the record which rested on our Shoulders with a second point on the circumference, outside of the circle of the record touching the floor directly in front of our Feet, called the 'Baseline Contact Point Of The Plane' ('BLCPOP'). The opposite side to the one making contact with the floor is projecting into space behind us.

Now, simply, draw a line from the 'BLCPOP' to the 'Target' and you have what we call the '**Baseline Of The Plane**' (BOP). We will speak about '**One End Pointing**' in just a moment. When properly executed, one end of the Golf Club is always pointing at the 'Baseline of the Plane' or the Club Shaft is 'Parallel' to it. (see 11 Swing Sequences, Video Analysis Chapter)

Our 'Ears and Eyes' also have a 'Plane' as do all the 'Parts of our Bodies' that 'Rotate Around Our Spinal Crankshafts', which, correctly 'GOLF SET-UP' will be 'Forward Inclined as well as Aft-Tilted'. You will find a more complete list of key parts soon. A bit far-fetched, but I sometimes think of this 'Plane', as it relates to the very top of the 'Upper Body Machine', as being similar to the 'Latin-American Dancers Black Hat', similar to those worn by the 'Toreadors On Horseback in the Bullfighting arena', the 'ZORO Hat'. You know the hat; black flat top with the rigid phonograph record brim. When I stand 'CHIN Tallish' and 'Matador Proud', the brim of my 'Trubador Hat' is roughly the same as my 'Hip and Shoulder Planes' and similar to my 'Swing Plane'. These 'Planes', the entire 'Golfing Machine' is very inter-connected and all parts should be 'In Harmony'.

3) **TWO PRIMARY SWING PLANES:**

Mr. Hogan's book, 'Five Lessons, The Modern Fundamentals of Golf' is highly recommended. It exhibits the solid foundation of the man.

It should be noted that Ben Hogan did not have the tremendous advantage of our modern high-speed digital video cameras so we now know more intricacies and perhaps are closer to the 'Scientific Truth' of it. I now must make myself very clear. I do NOT in any manner suggest that every one undertaking the 'Game' or, for that matter, this book, become overly scientific in their approach to the 'Game'. You may lose it very purpose, 'Having FUN'!

In our very '**Digital Look At Golf**', the team knows there is not one 'Precise and Pure Swing Plane', but a progressive and smoothly varying one. It is for this reason, we call it a 'Swing Plane Zone or Envelope' in which the 'Clubshaft Travels'. The '11 Swing Sequences Chapter' reveals much detail about the 'Down The Line and Body On Views of the Golf Swing'. You will find it useful.

When we analyze an individual's 'Golf Swing' 'Down The Line' we consistently draw 'Two Plane Lines' that define this 'Range of Plane'.

All 'Planes' are related or referenced to the 'Base Line of the Plane'; Where the sheet of plywood with hole in it through which you stick your head so it rests on your Shoulders, meets the ground. This is the aspect to which you compare all your 'Plane' issues and nothing else of any major consequence.

The **'First'** is that of the **'Inclined Address Shaft Plane'** which defines the 'SET-UP Plane'. It is simply a line drawn from the 'Base of the Hozel or Tip-End of the Shaft' to infinity above and behind the Golfer's back. It is worthy of note here that this 'Plane Line' is viewed at one of the two 'Moments Of Low Inertia'. The Clubhead is at the 'Bottom of a Static Swing Arc'. ('Address Ready')

I want to add here, that I am a teacher who would rather focus on the 'IMPACT FIX' (**'Inclined IMPACT Shaft Plane'**) aspect of the 'Set-Up' rather than the very neutral 'Address Fix'. We do not strike the Ball with the 'Address Components' but the altered or different 'IMPACT Components'.

The **'Second'** is the **'Horizontal Plane Line'** that is drawn from the 'Base of the Hozel or Tip-End of the Shaft' through the subjects 'Brace Shoulder', better know as the 'Shoulder Plane'. This 'Plane' is clearly defined or portrayed (in good Golfers) by the 'Target Forearm' at the 'Top Of The Back Swing' (TOB). The 'Forearm' superimposes the 'Shoulder Plane Line'. Worthy of note as well, the 'Leading Edge of the Clubface' (ideally) is also 'Parallel' to this 'Shoulder Plane Line'.

So we are a 'Golfing Machine' comprised of some very basic 'Straight Lines' which give us 'Guidelines' as to our 'Physical or Scientific Performance'. This Gold Swing is all about Straight Lines and related Circles. It is about the 'Physics Of Rotation (Mechanics) and the 'Geometry Of The Circle' (FEEL). We should always strive to keep it this simple or simpler!

This 'Stuff' is useful and highly interesting for many but should not become all-consuming for but a few!

Remember, what 'Homer Kelley' said about the 'Golf Swing'. **"POSITION GOLF SMOTHERS ALIGNMENT GOLF."** You must allow the 'Swing', by its very name, to 'FLOW' and not become segmented or disjointed in any way or you shall never find the comfort of a great 'Golf Swing'.



Two Primary Swing Planes
Shaft & Shoulder Plane, Plane Margin



Brace Elbow & Forearm On Plane

4) **THE FOUR PLANE APPROACH:**

I know this to be true and perhaps one might define and investigate more as, when a 'Body Rotates', virtually every 'Component' has its own individual 'Plane' or 'MOTION Line'.

The 'FOUR Plane Approach' includes the 1)'Shaft Plane', the 2)'Forearm Plane, the 3)'Elbow Plane' and the 4)'Shoulder Plane'.



Four Rotational Planes, Yellow Line is Shaft Plane
Red Dots indicate the 'Shoulder Plane'.

I like to keep this primarily, from a 'Motion Analytical Perspective' down to the 'Two Planes' discussed in the 'Section Above'. But it is my 'Duty' or 'Obligation' to share what I know and deem of merit with you. More on this 'Plane Subject' soon.

Remember, the following 'Nine Planar Elements' are all very performance predicated upon the conditions of your 'Spinal Axis', 'Forward Inclination and Aft-Tilt'. Engine Conditions!

COMPONENTS ON PLANE:

You will have heard a little or more about '**High Speed Video Capture or Analysis**' ('HSVCA'). This modern electronic process enables us to view our own 'Swing Mechanics' from a third party perspective. This ability allows us '**To See Ourselves As Others See Us!**'

When we observe the 'Golf Swing', we look at it from four perspectives. 1) 'Body On' ('BO'), 2) 'Down The Line' ('DTL'), 3) 'Up The Line' ('UTL') and 4) 'Top Down' ('TD').

'**Body On**' enables us to observe the 'Swing Circle or Path' as well as numerous parts from a very useful frontal view. (see 'Video Anaysis')

'**Down The Line**' lets us observe 'Swing PATH & PLANE' as well as 'Clubhead PATH' and the specific performance of other 'Components'. We can clearly observe 'Body Machine Components and Positions' from this perspective. 'Posture', 'Spinal Axis' and items such as 'Brace Knee Flex', 'Alignment', 'Clubhead PATH' and 'Ball Flight' are observed very clearly from this 'DTL View'.

'**Up The Line**' allows us to observe 'Swing PATH & PLANE' and all the other 'DTL' items, but from the 'Muzzle End' of the 'Golf Gun'! This is a terrific view! It shows the 'Target Side' as no other view. One can observe the 'Flat Target Wrist' or 'Back Of The Target Hand' through the 'IMPACT & SEPARATION Zone'. One can also observe whether the striker employs 'Visual Acuity' or not. Any change in 'Knee Flex' and 'Spine Angle' shows up very clearly. Great View! One needs to protect the camera equipment but that can be accomplished.

'**Top Down**' allows a great sensitivity to 'Spine Angle' and the condition of this 'Spinal Crank Shaft or Golf Engine' throughout

the entire 'Back & Front Swings'. If one alters the 'Lever Assembly Swing Radius' ('Dead Rope') this condition shows up right away!

Different 'Machine Components' that can be observed 'DTL' include all the 'Alignment Axes' and more. (see 'Alignment Axes') Eleven distinct 'Components' that can be observed include 1) 'Eyes', 2) 'Ears', 3) 'Brace Shoulder', 4) 'Brace Elbow', 5) 'Brace Forearm', 6) 'Brace Wrist', 7) 'Brace Hand', 8) 'Brace Hip', 9) 'Brace Knee', 10) 'Club Shaft' and 11) 'Clubhead PATH'.

By good informed observation both the teacher and the student can define a great deal of the unfolding mystery of the 'Subject Golf Swing'. The process of 'HSVC' is a terrific asset when used properly. If the evaluator does not know what he or she is observing, it will likely be a waste of time and create confusion for both individuals. Be advised that you must place the camera 'On PLANE' directly square and level with any one of the above subject parts to observe properly regardless of the 'View or Perspective'.

Knowing what '[The Physics Of Rotation](#)' and '[The Geometry Of The Circle](#)' entail will put you on a good foundation. Invest in this understanding at your first opportunity. This book has ample information to get you informed.

THE ELEVEN PLANE REALITY:

Now that we have identified the 'Three Primary Rotational Planes', we can venture out a little farther and talk briefly about 'Eleven Of Them'! Good Lord, not more! They are very functional.

Please note that whether the Motion is 'Up & Down' or 'Round & Round', there is a 'Motion Plane', 'Straight Line or Circular'.

Here again are those 'Eleven Common Elements': 1) [The Clubhead Plane](#), 2) [The Clushaft Plane](#), 3) [The Brace Hand Plane](#), 4) [The Brace Wrist Plane](#), 5) [The Brace Forearm Plane](#), 6) [The Brace Elbow Plane](#), 7) [The Brace Shoulder Plane](#), 8) [The Eyes and Ears Planes](#), 9) [The Hip Plane](#) 10) [The Brace Knee Plane](#) and 11) [The Target Forearm Plane](#).

[Plane number 8\), the Eyes and Ears Planes](#), may be subtle but if you have your 'Head Cocked', your 'Ball Flight' will be directly affected. This is key!

I generally deal with the 'Brace Side Body Components' as I am committed to the truth of the 'Brace Side Power'. **'FROM THE GROUND UP'**, the 'Brace Toe Pressure', 'Brace Foot PreLoad' and your 'Brace Leg Drive' provides the 'Propulsion' and NOT the 'Target Side'. You do NOT 'Pull' your way through the 'IMPACT and SEPARATION Zone'. You 'Push and Rotate' your way through it!

The 'Target Forearm' is a very useful 'Plane or Line' to consider as it is a very visual and functional 'Line that exists at the Top Of Back Swing' (TOB) that can be easily seen 'Down The Line' but not 'Across the Line or Body On'. Instructors and teachers must learn to read this Line as it relates the 'Base Line of the Plane'. Where we are at the 'TOB' very much affects how we get 'Back To The Ball' (Clubhead Routing) and the conditions likely to be utilized 'Through The Bottom' ('Components and Procedures').

I want to tell you right here as well, that one can make exceptionally good Golf Shots while being in an 'Imperfect Plane Position At The TOB'. Being a little 'Over or Under Plane' is not terminal. So don't get consumed with this aspect of 'Being On or Off Plane'. The 'Number One ALIGNMENT In The Game Of Golf' is but one 'Component' in my humble opinion and you know what it is! It is not those 'Body or Target Lines'. It is the **'Squarely ALIGNED Clubface To The Pre-Selected Ball Flight Line At The Moment Of Separation'**!

At all costs, keep control of the Back of your Target Hand as it is the primary controller of the Clubface AIM and greatly affects your Clubhead PATH as well.

Remember your 'Five Essential Elements'. If not, go to your 'Friendly INDEX' and look it up. Pay this information a quick visit. This 'Quick Find' flexible ability is the real value of these books! I hope you agree with me.

If you want more, **"JUST ASK US!"**

I hope these few moments spent together on the topic of 'PATH & PLANE' has helped you to better grasp and understand **'The Logic and the Mechanics Of The Golf Swing'**.

Remember, the science of this 'Swing' is all about **'The Physics Of Rotation'** and **'The Geometry Of The Circle'**.

Thanks again you for your time!

Now more to this!

5) **CENTRIFUGAL FORCE:**

When our club or simply a piece of string with a fishing weight being swung at the end of our Shoulders, Arms and Hands around our 'Spinal Hubs, the Clubhead or the fishing weight will be at the end of the tight string, trying to sling off into space due to '**CENTRIFUGAL FORCE and ANGULAR MOMENTUM**' (Tether Ball). You can prove this just by letting the string go while the weight is at some velocity in 'ORBIT' (going Round and Round with speed). The weight will fly off outward from our bodies, 'On Plane' or following the 'Phonograph Record'. You know the David and Goliath deal!

Few of you may have had the opportunity of viewing the 'Tip of the Rotor Blades' in a helicopter while either sitting on the ground or in flight, but they make a distinct mark or shadow in the sky. You can clearly see the tip of the blade going 'Round and Round' in space at a 'Fixed Distance' from the 'Rotor Hub'. When you 'Tilt or Move' the 'CYCLIC', which is the cockpit control for tilting the 'Rotor Assembly', you can see the 'Tip Path or Rotor Plane' against the sky. Tilt the collective right, the aircraft travels right. When you vary the 'Rotor Plane' you directly affect the movement of the aircraft, under control if you are wise and trained to do so. Just as in Golf Clubhead under control, Ball Flight under control.

If a 'Rotor Blade' were to come out of the 'Hub Socket or Journal', it would 'Sling Off Into The Space' as well.

Not a good thing!

6) **ONE END POINTING:**
(Shaft On Plane)

As you swing your Clubhead in its 'ORBIT' around your 'Sternal Hub or PIVOT' being connected by the Lever Assemblies, you are creating a 'Clubhead PATH and PLANE'.

'One End Of Your Golf Club Is Pointing At The Baselin Of The Plane At All Times'. The only exceptionis when the 'Clubshaft Is

Horizontal To The Baseline Of The Plane' (see 'Swing Sequences #7 Pre-IMPACT and #9 FOLLOW').

When you are at 'Address or IMPACT FIX', the Clubhead end of your Golf Club (its Sole) is pointing at the ground. If you envision the 'Pane of Glass' image, where the base of the square Pane of Glass or Plane is resting on the ground in front of your Feet and is 'Aligned' to the Target (TARGET LINE), your '**CLUBHEAD IS POINTING AT THE BASE LINE OF THE PLANE**'. If you TAP the ground, the Clubhead will TAP the Base of the Plane Line. This 'Plane Line' mathematically extends from horizon to horizon, meaning it generally passes through the Target or Pin unless you deliberately 'Set-Up the Components and Procedures' for a Push, Fade, Slice, Pull, Draw, Hook.

As you swing your Golf Club in 'Slow MOTION' from your Target Shoulder Socket or Hub or the Swing Arc, your Clubhead will be in a smooth concentric 'ORBIT' around your Spine. As you make your 'Take-Away' the Clubhead will be 'Pointing to the Base Line of the Plane' all the way to 'Swing Sequence #3 (Clubshaft Parallel to the Ground)'. As soon as your Clubshaft becomes more elevated, the 'Other End' of your Golf Club, the BUTT end or the 'Hole in Your Butt' will then be 'Pointing at the 'Base of the Swing Plane'. This 'pointing' relationship continues as long as the 'Head of your Club' is above 'Horizontal'. As soon as it falls back down below 'Level' the Clubhead once again 'Points at the base Line of the Swing Plane', while the 'Hole in Your Butt once again Points at the Hole in Your Tummy'.

When you are swinging properly, the Clubhead is 'Connected' to your Target Shoulder Socket by the 'Lever'. It maintains a 'Constant Length or Swing Radius'. In a perfect world, the Clubhead does not get farther or closer to your Sternum during the entire swing. To be precise, your Target Hand stays at a 'Constant Separation' from your 'Sternal Hub'. When you 'Wrist Cock', the actual 'Clubhead Radius' is reduced; 'Details, Details'!

One end of the Golf Club is, at all times, pointing to the Base Line of the Plane, as long as you are 'Swinging the Clubhead 'ON PLANE'. The more relaxed but stable you are in your 'Set-Up' and 'Swing', the more stable will be your 'Clubhead ORBIT'. You will be swinging 'ON PLANE' and get better results than if you were not. This is 'Swing Plane'.



Body On - One End Pointing At All Times
Except For 2 Parallel Intervals



One End Pointing at the Base Line Of The Plane
Except for the 'Shaft Parallel Periods' (Body On)



One End Of Shaft Pointing At The Baseline of the Plane
Except in the 'Shaft Parallel To The Ground' condition



Body On - Shaft Parallel To The Ground
Laser Pointing At Infinity, not to the Base Line Of The Plane
Weight Distribution slightly Target Side



Down The Line - DTL ... Swing Sequence #1
Shaft Pointing at the Baseline Of The Plane



Down The Line (DTL) ... Laser Line
Shaft Pointing At The Baseline Of The Plane



Down The Line (DTL) ... A little Flat or Below Ideal Plane
Laser Beam Pointing At The Baseline Of The Plane ... I/O



Up The Line (UTL) ... Swing Sequence #1
Laser Beam - Shaft Pointing At The Baseline Of The Plane



Up The Line (UTL) ... Swing Sequence #8a - Chase
Laser Beam Pointing at the Baseline Of The Plane



Up The Line (UTL) ... Swing Sequence #5 ... Top Of Back Swing
Shaft Laser Beam, Pointing At The Baseline of the Swing Plane



Up The Line (UTL) ... Swing Sequence #9
Shaft Parallel To The Ground ... Laser Pointing At Infinity

7) **ELEVEN BASIC PLANES AGAIN:**

There are nine similar but distinct 'PLANES & PATHS' with which I deal when analysing the Golf Swing from the 'Down the Line' perspective.

They are, Top Down, 1)the 'Eyes, 2) the Ears Plane', 3)the 'Brace Shoulder Plane', 4)the 'Brace Elbow Plane' 5)the 'Brace Forearm Plane', 6)the 'Brace Wrist Plane', 7)the 'Brace Hand Plane', 8)the 'Brace Hip Plane' and then 9)the 'Brace Knee Plane', 10) the 'Shaft Plane', 11)the 'Clubhead Plane'.

Adding 12)the 'Target Forearm Plane' ('UTL') makes twelve!

When making the 'PIVOT or ROTATION', even when it is relatively small in the overall perspective, we need to have the 'Planar Parts' in their respectively correct positions at all times. When swinging in a 'Geometrically Circular ORBIT', these 'Body Parts' will either be on or off 'PLANE'. The 'Speeding Clubhead' is a considerable distance from the 'Epicentre' of our 'PIVOT and ROTATION' which is the very core of our adjusted or 'SET-UP Spinal Crankshaft'.

These nine 'Planes', the most important of which are the 'Shoulder, Elbow and Shaft', provide teachers with a 'Zone' (area between the Shaft & Shoulder Planes) in which the Clubhead and Clubshaft travel. These are not matters of 'PERFECT' so we need margins in which to successfully perform this feat we so 'fondly' know as 'Swinging the Golf Club!

Once 'SET-UP' is properly tended to, our Clubhead and Clubshaft performance will be more reliable than we generally imagine. Keep your 'Attitudes' positive and trust this to be true.

I just want to tell you that each of the nine 'Plane Elements' affects your performance. The closer the 'Element' is to your Clubhead, the more influential it is likely to be! Closer may make it hotter!

8) **BEING ON PLANE:**

Several facts that relate to this 'Being On Plane' are;

- 1) If we 'SET-UP' properly, those '5 CONTROLS' in place, we will have the four 'Basic Planes' under control.

- 2) At the 'Top Of Back Swing', with our 'SET-UP Spinal Inclination' still maintained with a 'Constant Brace Knee Flex', if we have a 'FLAT TARGET WRIST', our 'Clubshaft will be On Plane' as will be our 'Target Arm'. The 'Clubface will be SQUARE or On Plane' as well.

- 3) If the Clubshaft is 'Parallel to the Baseline of the Plane' when the shaft becomes 'Horizontal to the Gound' (Swing Sequence #3), in the Back and Frontswings, the 'Golf Club is On Plane'.

- 4) If the 'Hole in your Butt' (Grip) 'Points at the Base Line of the Plane, or generally at the Target Line, when the Hands are above the waist or above Horizontal to the Ground, Back Swing and Front Swing, the Golf Club will be 'On Plane'.

- 5) If the Clubhead points at the 'Base Line of the Plane', or generally at the 'Target Line', when the Hands are below the Waist.

ELEVEN BASIC SWING SEQUENCES

Body On (BO)

SS#1 ... Address Ready (passive) & Impact Fix (active)
 Extension, Swing Length, BOSA

SS#2 ... The Sweeping Take-Away (First 8 to 12 Inches)
 Low & Slow, Deep Flat & Wide. Extension

SS#3 ... Shaft Parallel To The Ground
 Extension of Target Lever, Swing Radius

SS#4 ... Target Lever Parallel To The Ground
 Extension, Target Shoulder to Chin

SS#5 ... Top Of Back & Up Swing with Transition
 Completed Shoulder Load Coil (ALSDR)

SS#6 ... Target Lever Parallel To The Ground
Transition & Lateral Bump completed

SS#7 ... Shaft Parallel to the Ground - Pre-Impact Sequence
Extension, Brace Leve Straightening

SS#8 ... Impact (Compression & Line Of Compression)
Extending, Pivot Pressure, Brace Leg Drive

SS#9 ... The Chase Follow Sequence - Shaft Horizontal
Still Extending, Both Levers Straight

SS#10 ... Top Of Front Swing (three Positions a)
Abbreviated finish (shaft relatively upright), b) Hands extended,
full Shaft Parallel To The Ground (Laser Beam Pointing At Infinity)
and c) Shaft Slapping you between the Scapulae

SS#11 ... Bounce Back if you have adequate 'Momentum and
Energy' ('Momentum Inertial Velocity' - MIV) to accomplish this
Shaft & Clubhead pointing back at the 'Far Target'. This special
move really confirms that your Strike was 'On Path and On Plane'
and 'In Balance'. It is a 'Finish & Hold Maneuver'.

Note: The 'Body On' perspective enables one to observe the 'Shaft's
Body Clocking' behaviour, especially the 'Lever Assemblies'
(Shoulder Sockets, Upper Arms, Elbows, Forearms, Wrists, Hands and
the actual Golf Club'). This perspective helps us to observe the
'Spine Angle and Rotational Behaviour' such as our '555 Golf
Academy RPM Concept'. (see 'The Bicycle Wheel Concept')(see
'Clubhead Lead & Lag')(see 'Timing and Component Cooperation')

Note: The 'Down The Line' perspective enables one to observe the
'Orbital Plane' of the 'Clubhead' and all the related 'Components'.
Such aspects as 'Forward Inclination' and 'Sit Down' or 'Brace Knee
Flex' are really very key 'Components' to watch.

'Hand PATH' is a useful observation 'Down The Line'. It can be observed as well 'Body On', but for different behaviours. Be curious when you investigate any golf swing! Look at the very simple first and then beyond.

The 'Body On' perspective enables one to observe the position of 'Components' as they relate to the 'Spinal or Longitudinal Axis', 'Top Of Your Head To The Soles Of Your Feet'. ('Tether Ball Pole')

From this 'Body On' view, we can see 'RPM' and 'TIMING'. We can see 'LEAD & LAG'. We can see 'LATERAL MOVEMENT' such as 'Sway & Slide'. We can see 'Aft and Forward Tilt'. We can see 'Reverse Pivot' and what we call the 'Reverse 'C'.

We can see all the 'Components' from the front. Thus we can see any movement that takes place along the 'Target Line' which is what we call the 'Lateral Line'.

9) **HOW DOES THE CLUB SHAFT and/or THE CLUBHEAD
 GET ABOVE OR BELOW SWING PLANE?:**

Putt into its simplest form, when you '**Lift To Turn Ratio Gets Out Of Balance**' or when you have 'Manipulated A Hinge' (see 'Three Lever Single Action')(see 'The 13 Primary Articulating Joints')

The answer to this fundamental question begs me to mention the aspect of the 'Carouselling' Hips and Shoulders. You will recall that the 'Absolute Motion of the Hips and Shoulders' is going '**ROUND & ROUND**'.

As well, you will recall that the 'Absolute Motion of the Hands and Arms (the Lever Assemblies) is going '**UP & DOWN**' in that 'Ferris Wheeling Action'. Another picture along the circus theme is that, the spine's being 'Forward Inclined', the Arms are really a 'Tilt-a-Whirl'. I will accept either. You too?

Also, once we have established our 'Pre-Selected Components and Procedures at Address', we have determined what our 'Clubhead and Clubshaft Swing Plane' as well as 'Spine Angle' should be generally during the entire Swing. If we vary any of the 'Primary Angles' during the Swing, ie. Wrist Hinge Angles (Vertical, Horizontal), the line relationship between the Clubshaft and the Brace Forearm or the Spine Angle (Inclination or Aft-Tilt) during the Swing, we will

have altered the 'Swing Plane' and thus the 'ORBIT of the Clubhead' and its relationship to the 'Target Line'.

If we alter the 'Wrist Hinge Package' with movement or adjustment in its third function (Turn, Upright, Roll) about the 'Longitudinal Forearm Axis' (radius & ulna) we do not alter the 'Shaft Plane' but we do influence the 'Leading Edge or the Clubface Plane' to 'Open or Closed' relative to 'Square to the Target Line'. This will alter 'Clubface AIM' and 'LOFT' and thus, of course, our 'Initial Launch Angle and Direction of Ball Flight'.

Consider the 'Address Ready', 'SET-UP Position' or my 'Swing Sequence #1' from a 'Body On' and 'Down-the-Line' perspective.

The following 'Body On Swing Sequence #8 (Impact) is a very useful image to keep in your 'Swing Memory Library'. All the 'Components and Procedures are well in place or accomplished.

'The Pivot Engine and Lever Assembly' packages are in the 'Going To Work Mode'. You can see the 'Connection and Pressure into the Ground' ('Mother Earth'). 'Brace Leg Drive' and the Target Hip's movig Backwards (towards the rear) or 'Clearing' (making room for the advancing Brace Hip and full girdle. (see 'The Swapping Pockets Bullet-Proof Drill')

THE FOLLOWING PICTURE is extremely important!

When 'Static or Dynamic' (Active or Passive), Golf is 'Mechanically about 'Line and Arcs'.

How we accomplish a reliable and predictable 'Golf Strike' depends on our ability to manage these 'Lines & Arcs' ... straight and curving lines!

There is a lot of value in this picture!

Invest some focused time!

Enjoy!



SS #8 Body On, Impact Fix and Strike



Swing Sequence #1, Address Ready, No Brace Leg Drive Pressure



Swing Sequence #8, Impact, Brace Leg Drive Pressure

All the 'Primary and Secondary Lines and Angles' have been established to fit our 'Pre-Selected Components and Procedures'. The 'Golf Body Machine' has been programmed and is ready to perform its Work.

STAYING ON PLANE:

I want to tell you that 'Staying On Plane' is the result of getting there and then not doing much to disrupt it. Keep those Lever Assemblies doing their simple tasks and not very much more, if anything! No Manipulation! **'TURN BRACE! TURN TARGET!'** 'UBM Up & Down' and 'LBM Round & Round'! KEEP IT SIMPLE!

If we maintain all the 'Primary Lines and Angles' established at 'SET-UP or Address Ready' during the entire Swing, Back and Front', and only 'ROTATE the HIPS' (Round & Round, Carousel) and 'LIFT and LOWER the Lever Assemblies' (Up & Down, Ferris Wheel) we should remain relatively 'On Plane' in the manner of a 'Tilt-O-Whirl'. This Golf is really one big county carnival or a 'Travelling Road Show' in the making!

Thus, if we translate to the 'Top Of Backswing' (Swing Sequence #5) with our Shoulders having rotated a full 90 degrees resulting in our Clubshaft's being both **'Horizontal To The Ground And Parallel To The Target Line'**, and then we further rotate our Shoulders to 100 degrees, we will cause the Clubshaft to rotate likewise 'Across The Line' by ten degrees. John Daly is a prime example of this 'Crossing The Line' at the TOB. He makes it work by matching all the other 'Components and Procedures'.



Across the Line at TOB (Body On)
Below Parallel at TOB (Body On)



Body On ... Top Of Back Swing - Swing Sequence #5
Good Power Loaded Position - ALSDR



Down The Line View - Swing Sequence #5
... Top Of Back Swing ... Across The Line

If we 'Rock Our Shoulders' farther towards the Target (Below Plane) we will then cause the Clubshaft to rotate farther 'Below Plane' or 'Below Horizontal or Parallel' which directly affects 'C/H ORBIT'.

If we alter our 'Primary Spine Angle and Line' (Inclination and Aft-Tilt) either at the Knees, Hips or in the Abdominal Margin by curving the Spine, we will also alter the 'Clubshaft Plane'.

If we alter our 'Extended Target Primary Lever' (Shoulder to Elbow to Hand), for example by 'Bending Our Elbow', we will alter our 'Swing or Clubshaft Plane'.

If we alter our 'Wrist Hinge Position' from the Pre-Selected Components and Procedures', any of these variation will change the 'Hinge ACTION or relationship of Clubhead or Clubface to the Forearm Line' and thus alter the Swing Plane and Clubface AIM.

We are, as a 'Golfing Machine' as simple as a 'Mechanical Machine' but keeping the 'Components and Procedures' all in Balance is a considerable but surmountable task. There are a lot of 'Parts' moving in potentially many directions and relationships, 'Lines and Angles'.

It is ONLY by basic knowledge of the 'Machine' with diligent smart practice that we might accomplish the 'Optimal Clubhead ORBIT'. It is ONLY by 'Simplicity that we might overcome Complexity'. You can do it!

OFF PLANE:

(Out of Balance In 'Pre-Selected SET-UP Lift Turn Ratio')

So, when we are at the 'Top Of Backswing' in a 'Shaft Horizontal and Parallel to the Target Line Component Condition', and we alter any of the following;

- a) **Shoulder Hinge Angle**
- b) **Target Elbow Angle**
- c) **Target Wrist Angle** (Vertical, Horizontal
or Roll Axes)
- d) **Spinal Tilt and Brace Knee Flex**

We automatically alter the Clubshaft Swing Plane and likely the Clubface AIM or the relationship of the Clubhead Leading Edge to the Target Line or the Swing Plane or to the 'Baseline of the Plane'. These are really different ways of saying the same thing. Along with 'Plane Distortion' we will likely get '**RPM DISTORTION**' where the Clubhead gets either ahead of or behind the Hips and Primary Lever (Shoulder Socket, Arm and Hand). The 'Hole In Your Butt' will not be pointing at the 'Hole In Your Tummy' in Swing Segments #2F and #3F or when your Hands are Below your Hip Level; when the Clubhead is moving forward or in a 'Positive Direction to the Target'.

All these 'Components and Procedures' are simple to establish but far too easily distorted during the Swing. The simpler we keep our 'Movements and FEELS', the more consistent will be our 'Swing Planes' and our 'Clubhead ORBITS'; then, of course, the Ball Flight! Always 'Pre-Selected Components and Pre-Selected Procedures'. I say 'Movements and FEELS' because 'Swinging On Plane' is the simplest MOTION we can make and it 'FEELS' simply 'One Move Up and One Move Down'. When we lose the 'Simplicity Of FEEL', we have 'Manipulated' the Clubhead and likely all that is attached to it all the way to the 'Soles Of Our Feet'!

Remember, 'Golf a Physical Test' involving everything from our 'Finger Nails to our Toe Nails'; plus the 'TOOL'. I would be remiss if I were to leave out the very 'Top Of The Human Parts Pile', the bony structure that encapsulates our brains, 'The Mind'. Now, that's a whole big new subject! Isn't it?

What a challenge this Golf is, 'Physically and Mentally'!

10) **ADDRESS WRIST SET:**

This was dealt with previously in the 'BODY MACHINE' chapter so you might want to visit that area of the book again.

Take your normal, correct 'Address Ready Position' and do several TAP TAP TAP's to get neutral in your 'Set-Point', 'Levers Relaxed'.

You will now have the Clubhead resting on the ground at about its right location relevant to the Foot and Target Lines; not too far from or too close to your 'Foot and Body Line'.

This is still a 'FEEL ISSUE' so I want you to pick up your trusty 'Pitching Wedge' that is always beside you while you are reading this book and 'Set-Up' in this 'Neutral State' so you can actually 'FEEL' your 'WRIST BREAK' or 'WRIST HINGE' position and then the Action these varying 'WRIST ANGLES' allow. **If You 'REACH OUT' away From Your 'Foot Line' Your 'Wrist Break' Will Decrease.** In other words, the angle between your 'Forearm and the Clubshaft' will get closer to a straight line than at your neutral, 'Hanging from the Shoulders' position. When your 'Hinging Action' or 'Lifting Moment' is less than your 'PIVOT or ROTATION Rate', you are going to Swing the Clubhead and Shaft 'BELOW PLANE'; more **'Round & Round than Up & Down'**.

If you **'PULL IN'** and move your Clubhead closer to your Feet or Foot Line, your 'Wrist Break' will increase. This promotes faster and more 'RANGE OF MOTION' in the 'Wrist Hinge Action'. When your 'Hinging Action' or 'Lifting Moment' is greater than your 'PIVOT or ROTATION Rate', you are going to Swing your Clubhead and Shaft 'ABOVE or OVER PLANE'.

Whenever you get either too much or too little 'WRIST ACTION' on the 'Horizontal Axis or Horizontal Wrist Pin', which is 'Vertical Action', your Clubshaft will either get 'Above or Below PLANE' respectively.

The same is true of too much or too little 'WRIST ACTION' on the 'Vertical Axis or Vertical Wrist Pin'. When you have too much 'Bend or BOW', your Shaft PLANE will be affected as well. You will be **'Laid Off or Laid On'** respectively.

You can see how important it is for you to accomplish the proper 'Wrist Break or Set' in order to make a correct Swing with the necessary 'Shaft PLANE' and 'Clubhead LAG Pressure'.

It is that 'Primary Absolute', the **'FLAT TARGET WRIST'** that 'Sets-Up' and 'CONTROLS' the basic 'Clubface AIM' as well as directly affects your Clubhead LEAD and LAG, 'Laid OFF and On' and the Shaft PLANE as well as the overall 'Delivery PATH and Timing'.

Sounds Pretty Important To Me!

The best advice I can give you is to find your most 'Comfortable Address Set-Up Wrist Break' and not to mess with it at all during

the entire Back and Front Swings. Once you 'SET-UP' the 'Wrist Hinge Position' your Hand Actions should be very 'Passive' and 'Un-Manipulated'. Your Hands a just positive 'Clamps' that need to be 'LAID ON' ('The Laying On of Hands') and then simply allowed to perform naturally. Don't get in the way of your own good swing!

11) **THE BALANCE OF THE PLANE:**

This is still very much related to the previous 'Section' in that it deals with being either '**Above Or Below PLANE**' which is certainly '**On Or Off PLANE**'. We would prefer to be very close to 'On PLANE' at all times. It is possible to be 'On PLANE both in the Back and Front Swings'. How do I know this? Ben Hogan was! And some accomplished 'Players' after him. We also know a great deal more about this than only a short number of years ago, (perhaps three to five decades ago) due to man's insatiable curiosity to 'SEE and FEEL' things, including Golf! We developed the 'Motion Picture and the Video Cameras'. Stop-Action images revealed some truths about the Swing that we misunderstood and thought to be something other than correct in prior days.

I am often 'Caught in the Moment' thinking about those rugged and stalwart Scotts wandering about in the heather up to their kilts with no undergarments (so the tale has unfolded around the campfire) having pondered 'GOLF' and coming up with theory and practice that was entertaining!

So here we are today in the modern era; in the tewnty-first century, still 'Swiping at the Little White Ball with that Stick' that has evolved into so much from so little. I wonder if any Ancient Scott could fathom the 'Pastime' becoming a 'Multi-Billion Dollar' industry involving over a 'Billion' good modern folks having descended from those silly or daft sheep-herding highlanders? Well we too must be as 'silly or daft'.

I suspect some ancients were 'addicted' as well! Wouldn't you agree? Perhaps you as well, have looked in the mirror ans seen this addiction 'Face On'!

12) **TO THE POINT:**
 '**ON PLANE**' is the topic.

When we are properly '**5 CONTROLS**' ready to perform (employing that '**555 GOLF SYSTEM**' we are learning so much about), our 'Spinal or PIVOT Axis' is established and, along with our 'Firmly-Placed and Flexed Brace Knee', which is the 'Base of the PIVOT', we should be prepared to 'EXECUTE Components and Procedures' and 'STAY ON PLANE' throughout the entire Back and Front Swings.

If our 'SET-UP' and 'ROTATION' are stable, so too will our 'PLANE' be stable.

Interestingly, as can be seen in 'High-Speed Video Analysis', if we are 'Above PLANE in the Back Swing', we may well be 'Below or Under PLANE' in the Front Swing, before IMPACT and through to 'FOLLOW - FINISH'. In other words, 'Above in Swing Sequence #3, #4 and #5' we may be 'Below or Under PLANE in Swing Sequence #6, #7 and through to #8 and even through #9'. However, we know that we can 'Manipulate' ourselves even out of this pattern if we put our minds to '**Interfering With The Natural Swing ORBIT Of The Clubhead**' accomplished by good technique.

Likewise, if we are 'Below or Under PLANE in the Back Swing' we may tend to be 'Above PLANE in the Front Swing through to the FOLLOW - FINISH'. We can get ourselves 'OFF PLANE' in Swing Segments #2B and #1B which unavoidably forces being 'OFF PLANE' in Segments #1F, #2F and even #3F and #4F. You have all seen 'Golfers' who 'FINISH' with their Clubheads below the Target Shoulder at the completion of the Full Swing Clubhead Trip. Now that's 'UNDER PLANE and a very FLAT Swing'.

BELOW ON and ABOVE PLANE

The 'Yellow Line' is referred to as 'The Shaft Plane' ... may be slightly 'BELOW PLANE'. (depending on the golfer's 'Mechanical Personality')

The 'Orange Dot Line' is depicting the 'The Shoulder Plane' ... may be slightly 'ABOVE PLANE' depending on the golfer's 'Mechanical Personality')

In the middle of these two 'Lines', one might have accomplished 'ON PLANE'. These are the reasons we call this the 'Swing Margin'. You are in the slot!



Three Swing Plane Conditions
Down The Line - **BELOW** - **ON** - **ABOVE**

If you imagine and visualize this 'Yellow Line with Orange Dots' picture, we can take it one more useful step. Think about your take-away's being absolutely Flat ... sole of your Clubhead skidding or sweeping across the ground ... way below Plane. Also visualize your 'Take-Away's being absolutely Vertical.

Your average 'Clubhead Path' will be 'The Resultant or the Angled Path'. In geometry this is called the 'Resultant Line'.

If the Flat Plane Line is called the 'Y Axis' and the Vertical Plane Line is called the 'X Axis', the 'In Between Line' is called 'The Swing Plane'. Simple enough?

$$X + Y = Z$$

TURN Plus LIFT = SWING PLANE

You can see the terms '**FLAT SWING and UPRIGHT SWING**' are used to describe this 'PLANE Stuff'! Knowledge Is Power!

Golf has it own expansive vocabulary. You are best to learn and understand it soon. (see Chapters 'Glossary of Terms', 'Golf Lingo', 'Glossary Of No-No Terms' and 'A Few Special Words')

13) **SWING SEQUENCES:**

From this Swing Sequence #1 Position;

- 1) If you ONLY PIVOT or ROTATE (go Round & Round), with No or ZERO Up & Down of the Lever Assemblies, you will be '**UNDER or BELOW the PLANE**' (Shaft, Elbow or Shoulder)
- 2) If you ONLY RAISE and LOWER (go Up & Down) with the Lever Assemblies, and NOT go Round & Round, in other words ZERO OUT the PIVOT, you will be '**OVER or ABOVE the PLANE**' (Shaft, Elbow or Shoulder).

PLANE DEMONSTRATION:

To demonstrate this being 'Above Plane' in its simplest form, fetch your #5 Iron nad 'Set-Up' in the 'Address Ready' position. TAP the Ground. '**5 CONTROLS**' in place always. In this position (Swing Sequence #1) the 'Sole Of Your Clubhead' is resting on the 'Baseline of the Swing Plane'. Now, simply either 'Lift Your Levers Up Five Inches Off the Deck' or 'Wrist Cock' so that the Clubhead is about the same distance off the grass or floor. As soon as you do this the 'Clubhead is ABOVE PLANE'.

Your Swinging of the Clubhead around your 'Spinal Axis' should properly keep the Clubhead just sitting on the 'Plane' or Mr. Hogan's delicate 'Pane Of Glass'. If you were to radically get 'Off Plane' you would break the thin glass or the 'Phonograph Record'. '**MANIPULATION BREAKS GLASS!**'

BALANCE IS A BLEND OF LIFT TO TURN RATIO:

(see 'The Two Ocular Balance Points ... BIC & Far Target')

The proper 'Balance or Blend' in these two distinct 'Lower and Upper Body Motions', '**Round & Round and Up & Down**', becomes a reality when you FEEL Rotation and Raising to take place 'Smoothly and Evenly' in the 'Back Swing'. I know I FEEL that I have or make 'One Move Back and Up' and then 'One Move Down and Forward and Out'.

The 'Brace Biceps' do the 'Raising' and the 'Brace Triceps' do the 'Lowering'. The 'Target Lever Assembly' ONLY generally acts as or performs the function of being a 'Spoke in the Golf Rolling Wheel'. It maintains the 'Swing Radius', not more than a good sound rope might do to the 'Tether Ball'. The Brace Elbow 'Bends' in the Raising Backswing' while it 'Straightens in the Lowering Frontswing'. There is positive downward THRUST of the Clubhead applied by the Brace Elbow causing slight IMPACT with the ground, thus the slight DIVOT just after the 'Ball Separates from the Clubface'.

When the 'Brace Shoulder, Elbow and Hand', are '**RAISING**', along with the 'Brace Hip FEEL turning Level Back', (**COILING**), there is 'TENSION' produced in the always 'Flexed Brace Knee' with simultaneous 'Tension or Stretch' in the 'Target Side Abdomen or Trunk Muscles', 'Target Hip to Brace Shoulder'. This is a form of

'Potential ENERGY Accumulation'. What 'Accumulates' must and will be expended or dissipated sooner or later. As soon as you COIL that 'Lower Body Machine', it will Un Coil automatically taking the 'Upper Body Machine' with it, along for the ride. **The 'Lower Body Machine' LEADS and the 'Upper Body Machine' LAGS.**

We 'PIVOT, UnCoil or UnWIND **'FROM THE GROUND UP'**'. On this there is NO QUESTION! That is if we want to 'Swing The Golf Club' effectively and efficiently and 'Compress the Ball' down the 'Line of Compression' with the desired 'Spin Rates' producing DISTANCE & DIRECTION, or Ball Flight Shape. This is what scoring is made of, pure and simple!

Again, I can ONLY tell you what I FEEL and others have confirmed. I FEEL 'One MOTION Up and then One Smooth MOTION Down and THROUGH the IMPACT Zone and Ball'. My Clubhead swing **'Three Dimensionally, DOWN OUT FORWARD and THROUGH the IMPACT ZONE'**, where the Ball patiently, passively and quietly awaits it 'ass being kicked'.

For those who need my apology, please accept it at this time. No delay in its delivery! Let's get on with the show!

May I remind you that we do not look at the Top of the Ball, but at its little round derriere, **'Bottom Inside Cheek'** right through the Impact, Breathing Out, of course!

So we must allow our Lower Body Machine COIL to **'RELEASE'** smoothly; allow our Lever Assemblies (Hands, Arms and the Golf Club) to simultaneously **'DROP'** gravitationally, (NO DOWNWARD MUSCULAR FORCE being applied).

14) **PUSH AND PINCH:**

So we should, in this old teacher's hard-earned, tested and trusted opinion, **'PUSH'** with the Brace Toe and Leg, supporting and 'Blended With' the initialized 'Abdominal Rotation' resulting from the 'Stretched Muscles' coming out of the COILED condition.

Very soon thereafter, we must **'PINCH'** the turf with the 'Straightening Brace Elbow and the UnCocking Brace Wrist (Extensor Action in that order) which brings the sole of the Clubhead back down to contact with 'Mother Earth'.

This **'PUSH and PINCH'** smoothly causes the Clubhead to Swing **'ON**

PLANE', with '**CLUBHEAD LAG PRESSURE**' (wet mop FEELING) by means of the Imperative '**FLAT TARGET WRIST**'. Thus 'Compression with Line of Compression' and the very necessary 'Control of Spin Rate'.

We must keep the 'Push On' right '**T H R O U G H the IMPACT and SEPARATION Zone**' in order to effect proper 'Separation of the Ball from the Clubface'. We must keep the 'Push On' and the 'Pinch or Extensor Action On' right through the IMPACT Zone with the continuing through to the FOLLOW - FINISH Sequences which take place in Swing Segments #3F and #4F. The two Hands and Arms should attain full 'Extension or Straightness' ('In Line Configuration') during Swing Segment #3F, IMPACT through to the Clubshaft's becoming again 'Level or Horizontal' to the ground after Impact.

I feel 'Long In The Arms', 'Free-Wheeling', with an 'Outward Slinging Motion', 'Centrifugal FORCE of the Golf Club', to a point where I then FEEL '**SPENT**' or 'Out of ENERGY' ('In Line' point) and 'Slowing Down' to a point of coming smoothly 'To Rest' at the 'Top of Forward Swing'. ('TOB')(Swing Sequence #9 and optionally #10)

I think great Ball-Strikers, 'NO I KNOW', great Ball-Strikers all 'FEEL' something like this! The 'Swingers' all do for sure!

15) **ANOTHER WAY:**
 (of saying the same thing)

I was going to call this or make this '**The ON PLANE Rule**' but decided to just give it to you as a very strong suggestion. It is best you treat it like a 'Rule'.

The '**ROTATE & LIFT RATIO**' must be matched or Balanced in both the Back and Front Swings in order to keep your Clubhead and Clubshaft '**ON PLANE**'.

Too much ROTATION vs. LIFT = Under/Below PLANE

Too much LIFT vs. ROTATION = Over/Above PLANE

Getting this right, depends on your 'SET-UP' and your 'Take-Away'. This 'Golf Swing' is always a matter of the proper 'Pre-Selected Components and Procedures' being utilized to accomplish the desired 'Shot Pattern'.

Your SET-UP requires adequate 'Forward SPINAL Inclination' and 'SPINAL Aft-Tilt' to accomplish proper 'SWING PLANE'.

The proper 'TENSION or RELAXATION' in your Arms and Hands, those two 'Lever Assemblies', is of primary importance.

The first '**5 Inches of your Take-Away**' must be performed properly in order to get the Clubhead into its 'Proper ORBIT' and then to keep it there during the entire 'Clubhead FLIGHT PLAN'. '**LOW & SLOW, DWWP, FLAT & WIDE**' are both 'Key Thoughts' and 'Key Functions'. Learn and use them. If you do not already have them mastered, get a 'Master Teaching Professional' to share his ideas and knowledge with you right away. If what you hear and FEEL are not clearly understood, find another teacher.

Your Backswing should FEEL '**ONE MOVE UP' and then 'ONE MOVE DOWN'**'.

The ROTATION (Turn Brace, Turn Target) should be made 'PIVOT-Centred' around a very stable FIRM Braced and Flexed Brace Knee. The Brace Knee is Never Straight at any time during either the Back or Front Swings!

Your 'Clubhead Swings' at a relatively 'Constant Radius' from your 'Target or Swing Shoulder'. This is useful in order to get the Clubhead back to the Address Position Ball.

I remind myself of these basic disciplines by saying '**Brace Hand - Brace Shoulder**' in my 'Brace/Right HAND, Brace/Right ELBOW, Brace/Right SHOULDER TAKE AWAY' which leads me '**Smoothly**' from Address Ready, IMPACT FIX, to the 'Top Of Backswing' (TOB).

ONE MOVE UP and ONE MOVE DOWN

SOFT AWAY SMOOTH THROUGH

SWEEP AWAY PUSH & PINCH BALL PIN

16) **DOMINANT TARGET LEVER SWINGING PLANE:
(The BRACE LEVER is the HITTING PLANE)**

When a Golfer adopts a 'Weak GRIP' with the 'Back Of The Target Hand's being AIMED 'Down-the-Line' or at the Target' ('SQUARE'), you may have to 'Push the Club straight back away from the Ball very much with your Target Arm and Shoulder tending to control the Swing. If not, you will not find the line with any reliable ease. Any such Golf will have the tendency to 'PUSH, FADE and SLICE'. Colin Montgomery is an example of a very fine 'Striker of the Ball' who has mastered this adjusted 'Take-Away Procedure'.

To generalize slightly, if you have a 'TARGET Side/Lever dominated Take-Away, you will tend to be 'Flatter PLANED' than if you were to accomplish your Take-Away with the Brace Side/Lever'. The Brace Side Dominant person will tend to be more 'Upright PLANED'. There will be more 'LIFT in Ratio to the TURN' and you will be 'Swinging on a Different Plane'; 'Dancing to a Different Drummer'.

The key here is to make sure your 'Brace Shoulder Moves Level And Behind' as your 'Brace Hand Moves Back Up and Behind'. This prevents the 'Not-so-Useful' 'ROCKING CHAIR ACTION' of the Shoulders in the 'Full Swing Mode' ('Steady Pivot Axis'). We know how useful stability is in the 'Putting and Chipping Strokes'.

In other words, with what I call a 'Balanced Swing', your 'Brace Hand' travels 'UP and BACK'. Your 'Brace Shoulder' travels 'BACK and BACK'. Your 'Brace Elbow' travels 'Tangentially BACK and UP' about half what the Hands do. Smooth and Balanced is the answer or 'Key to the Puzzle'!

You will already know that in the 'Stage Three Procedure' you require FULL PIVOT and we must have this 'LIFT ROTATION RATIO' in Balance. The '**PIVOT Is The PRIMARY SWING ENGINE**'.

You already know that in the 'STAGE One and Two Procedures', where there is NO PIVOT, we must utilize another 'SWING ENGINE'. In these 'Stage One and Two Procedures', we generally employ a 'Rocking Chair Shoulder ACTION' to produce the 'Forward Motive FORCE' necessary to move the Clubhead 'Horizontally or Back and Forth'.

17) **SUFFERING FROM TOO FLAT A SWING PLANE:**
 (a BULLET-PROOF Drill)

 More 'Round & Round' than 'Up & Down'
(usually imparts more Side or X Axis Spin Rate)
 more Draw-Hook or Fade-Slice

If you are suffering from a 'Too FLAT SWING PLANE', try to strike Balls from a 'Lie where the Ball is below your Feet'. You will have to 'Swing Up and DOWN' (especially) to get your Clubhead back to and through the Ball. AIM slightly 'Left or to the High ENERGY Side' of Target Line. Your 'Ball Flight' should definitely be to the 'High Energy Side Of Target Line'. It will be time to do a lot more 'Fetching'!

18) **An Important Thought For YOU!**
 About The 5 Set-Ups

If you learn how to accomplish a 'Good Strong Set-Up', you can actually make a mediocre swing and like or live with your outcome!

If you fail to achieve a 'Strong Set-Up', you could make a perfect swing and not like your outcome!

What a waste of effort and intention!



Flat Swing Plane ... Laid Off ... Down The Line

18) **SUFFERING FROM TOO UPRIGHT A SWING PLANE:**
 (a BULLET-PROOF Drill)

More 'Up & Down' than 'Round & Round'.

If you are suffering from a 'Too STEEP SWING PLANE', try striking Balls from a 'Lie where the Ball is above your Feet on a Sidehill'. In this 'Drill' you will have to Swing more 'Round & Round' to get your Clubhead back to and through the Ball. AIM slightly 'Right or to the Low ENERGY Side' of Target Line. Elevating the Clubhead above the 'Standard Ball Location Level' makes the 'Lofted Clubface and Sole' to rotate upward and to the 'Left or High ENERGY Side'. Take your #PW that is always by your side right now and simulate these situations. You will 'See and FEEL' what I am talking about.

These two 'Lie Variations', 'Sidehill Above and Below Your Feet', are most useful as 'FEEL Drills' and, if you pay attention to what you FEEL, there is still hope!

You should now know more about the so-often 'Mysterious' Golf topic known as 'Swing Plane'!



Upright Swing Plane ... Down The Line

19) **TRAPPED and SNAPPED:**

This is a term that has been used more often recently due to the fact that Tiger Woods tends to get 'Trapped' in his Swings when his timing is a little off; when his 'Lower Body Machine' (LBM) gets slightly ahead of his 'Upper Body Machine' (UBM); when his Hips get faster than his Arms and Hands.

I think this is an '**RPM or TIMING**' issue but these two terms have direct affect on ones 'Swing Plane' so I will address the issue here.

Whenever the 'LBM' get ahead of the 'UBM' the 'Aft Tilt' increases and the forward Swing Plane flattens slightly or drops below the 'Primary Address Shaft Plane'. This 'Secondary Leg Drive Plane' is a normal and even essential reality with desirable consequences. When the 'Abdominal Release' takes place (the very first forward muscular move in the Golf Swing) the Hips naturally 'LEAD' the now 'TRAILING or LAGGING Upper Body Machine', what we call the 'Lever Assemblies' being 'Primary, Secondary and Brace Levers'. The 'Absolute Motion of the 'Lever Assemblies' is 'UP & DOWN or on the Vertical Plane around or about the Horizontal or Angled Axis' while the 'Hips Rotate or PIVOT about the Vertical Axis in a 'Horizontal Motion which is Round & Round'.

When the 'Hips Accelerate Away from the 'Maximum Load Turn or COIL Point' ('Hip Load Point') they momentarily leave the 'Upper Body Machine' behind just as you might do when you drop the clutch in your open box pick-up truck. The tools and items in the back on the deck will slide right out onto the road and you will leave them behind. If you realize what you are or have done, you can go back and retrieve the items or prevent recurrence of the incident in the future by raising the tail gate or letting the clutch out more gradually. Without any 'SNAP'!

When the 'Hips' are capable of rapid acceleration away from the 'Top Of Back Swing (TOB), you will be faced with the challenge of keeping the 'Upper Body Machine' 'On PLANE and Properly TIMED'.

When the Clubhead Hands and Arms get behind (TRAPPED) the 'Lever Assemblies' drop more than normal and the Plane Flattens. We generally get 'Under Plane' although other less-likely responsive errors can develop.

When a player gets 'TRAPPED' and the Hands get late or behind, the mind and body knows intuitively that something has to 'Catch Up' or the Ball is going off to the 'Low ENERGY Side'.... 'Leaky Stuff'. So what do we do to correct this impending doom so we can prevent what I call the '**TRAP SNAP**' with its small range of solutions? Preventions are better!

A TRAP SNAP FIX:

'Flip the Hands THROUGH the IMPACT Zone to Compensate For The Excessive LAG and TRAP or Manipulate To FIX The Open Clubface'. We know that we must 'Shut Down' the problematic 'Open Clubface' to prevent 'Ball Flight Error'. So we strive to accomplish this 'Hand Wrist Action'. If we are strong and have good 'Hand POWER and Speed', we get a case of the 'Snap Hooks' or just plain old 'Hooks', either of which is less than optimal! To make a good Golf Swing and Shot, we must keep 'ALL THE PARTS' 'ROTATING' at the same '**RPM**' or, just like in an internal combustion engine, something is going to come apart! There will be pieces of hardware heading in every direction and your Ball is not going down the correct or 'Pre-Selected Line'. The desired 'BALL-PIN TRIP' will not come about! The hardware is not going to cooperate!

It will be 'Grenade Golf Time' again.

To improve this malady, we must better 'MATCH our TIMING' so that the 'Components and Procedures take place cooperatively. I think we should never slow or retard the 'PIVOT or Hip Speed' as it is the engine. I think we should start the 'Upper Body Machine' doing its 'Down' slightly sooner by applying our 'Brace Lever Extensor and Down Force Action' just a bit earlier. We have to devise a way to 'Trigger The UBM Action' sooner in the front or down swing and to ensure that the 'R&R Force' 'MATCHES' the 'U&D FORCE'. After all, too much 'LAG' occurs when there is too little 'Down Force at the Right Time'. We get out of that 'MATCHING' condition.

20) **LAI D OFF and TRAPPED BELOW PLANE:**

Generally this 'Laid Off' condition is caused by a 'Wrist Hinge or Angle' problem. However all three of the 'Three Lever Single Action' components usually contribute but mostly the Wrist and Shoulder Hinges'. Each Hinge can add to the problem. Often this 'Laid Off and Trapped' is simply a matter of perhaps 'Over

Swinging' or making the Clubhead and Clubshaft (along with our Lever Assemblies) travel too far 'Back and Up' too far behind your Brace Shoulder and even Head.

You have this 'Early Hip Acceleration' action's ability to create more 'LAG and Drop' clear in your mind, right? Well, if you get both over extended or over swing in your 'Back Swing to TOB' with a little 'Laid Off' thrown in for good or bad measure, you will, when the Hips Accelerate away and forward, experience even worse or more exacerbated 'LAG, Drop and Trap'.

So when we see 'Trap and SNAP' we need to carefully examine whether we have just 'Late Brace Lever Down-Force Action' or there is some 'Laid Off' factoring in the 'Cause and Effect'.

If you have 'Laid Off', pay particular attention to the 'Hand, Wrist, Forearm Actions' and ensure that the 'Flat Target Wrist' is properly in place and position during the entire 'Back and Front Swings'. Do some properly designed 'Slow Motion Drills' every day for a period until you have mastered the correct 'Hand, Wrist, Forearm Hinge Actions' throughout the duration of the 'Shortened or Abbreviated Swing'. This is what we are really doing.

Always think and 'FEEL' that your 'RPM' is balanced and your 'Pressures' are 'MATCHED'. I like to think and 'FEEL' that my Hands are always 'In Front Of My Hips or Body' and that they 'Track With The Target Hip Socket'.

The 'Butt of the Grip and Heel Pad of the Brace Hand remains a consistent distance from the 'Target Hip' while the 'Golf Club' or these 'Components' are in the 'Bottom Half, Advancing Half or Power Half Of The Swing Circle'. This is very much 'RPM' stuff!

Also remember that, **'ONE END OF THE CLUB SHOULD BE POINTING AT THE BASE LINE OF THE SWING PLANE AT ALL TIMES'.**

OVERSWINGING:

Do not 'Over Swing to an Aggravated or Exaggerated Top Of Back Swing Position' thinking that you can do more 'Work' when your Hands and Arms are farther from the Ball at the Top. This is simply not true. There is a lot of misinformation out there promoting

'Over Swinging'. Be wary of and discard it. The more you 'Over Swing', generally the less accurate you will be in **'TEMPO, TIMING, RHYTHM, CADENCE and PACE'** and the worse will be your Balance; the worse will be your 'Spine Angle and Condition'; the more you will struggle with getting the 'Clubface Square at the Moment of Separation; the more easily and farther you will be 'Laid Off'. So too, the more will be your tendencies to get 'Trapped and Snapped' (Hooked) or just very 'Late Squaring Up the Clubface' if at all! You know the problems that lurk out there with the 'Open Clubface' condition! Unpleasant 'Ball Flight' problems coming at you like the 'London Plague'!

CORRECTIVE MEASURES:

These common problems of 'Trapped and Casting' can be prevented or fixed if you understand the 'Cause and Effect'.

Get your 'Hands and Arms' firing directly 'Down At The Ball' (see 'Delivery Hand Path from TOB') earlier in the front Swing Trigger Sequence. I like to 'FEEL' that very soon after the **'LATERAL BUMP'** and just about the same time as my 'Brace Leg Drive' really fires, that my 'Brace Hand Fires Down and Directly at the Butt of the Ball'. This response 'Trigger' is appropriate for 'Too Much UBM LAG' but certainly NOT for inadequate 'UBM LAG' or the 'Casting Motion'. Notice that I assume that the 'Lower Body Machine is always LEADING'. The variables herein are just 'By How Much'. With the 'Trapped Error' we want to shorten or close the 'LAG GAP' a little in order to get those 'Levers Down Active' sooner.

I guess 'Casting and Trapped' are like opposites or distant cousins on the opposed side of the family tree. 'Casting is very early UBM Action that 'Welds or Fuses the Brace Shoulder to the Brace Hip' preventing their having necessary 'Hip LBM LEAD and Brace Shoulder UBM LAG'. The number 'Three Lever - Wrist Hinge' and the number 'Two Lever - Elbow Hinge' fires to 'Straightening Too Soon'. As you know the proper 'Firing Order' of the 'Three Lever Single Action' 'Brace Side of the UBM' is '1 2 3' (Shoulder, Elbow & Wrist) and not '132', '231', '213 or '312'. Thus we might wisely treat these 'Cast and Trap' tendencies with virtually the opposite scenarios with opposite 'Cures' because the 'Cause and Effects' are quite opposite.

Be vigilant, informed and aware!

21) **BRACE LEVER PLANES, ANGLES AND LINES:**

I suppose there are numerous places in this book to talk about this '**GEOMETRY**', but it is primarily a 'PLANE ISSUE' and will serve our needs well right here.

As we 'SET-UP, Address Ready', our Hips are relatively 'Level' as are our Shoulders. The 'Brace Shoulder' is slightly lower than the 'Target Shoulder' simply because the Brace Hand is Below the Target Hand on the Grip'. The 'Levers' are just 'Hanging Around' ready to go to work. This is the start of 'Swing Segment 2B' and is 'Swing Sequence #1'.

We transition to the 'Top Of Back Swing' (Swing Segment 1B 1F and Swing Sequence #5) where we are 'LOADED and BRACE COILED'. We have produced all the 'Potential ENERGY' that we are going to get 'Delivered or Released' in the Front Swing. We are ready to make the 'Forward Transition' and start the '**Opposite Trip to BACK and UP**' (Shoulders and Arms) which is naturally '**DOWN and OUT**' (D.O.F.T.).

If we do not perform this 'Golf Swing' properly and we are on 'THE TOUR' trying to make a living, we will soon be 'Down And Out'!

At this 'T.O.B.' (Swing Sequence #5) we will discover some different 'PLANES, ANGLES and LINES' from the 'Address Ready Conditions' described.

Our 'Hip PLANE' is now slightly 'Tilted UP on the Brace Side'. Our 'Shoulder PLANE' is now 'Tilted UP on the Brace Side about twice as much as the Hips'. It is of interest to note that the 'Shoulders ROTATE (90 degrees) about twice as much as the Hips' (45 degrees) so finding out that the 'TILT' about on a '2:1 Ratio' does not surprise me. Our 'Golf Body Machines' are really quite predictable and mathematical.

LINES AND PLANES:

Now let's look to the 'LINES and PLANE' of the 'Brace Lever'. The Line of the Forearm is about 'Vertical to the Ground or Perpendicular' while the 'PLANE' is then also about 'Vertical or Upright'. The 'Brace Elbow', however is about 'On Swing Plane'. You will recall the 'Elbow' is tracked on its own 'Plane'. It is certainly a 'Key Component'. So you can see as the 'Backswing

Components get farther from the 'Centre or the Inside of the Swing' they become more 'Amplified in their MOTIONS and POSITIONS'. The 'Body LOAD, COIL nad TORQUE' increases as the 'Brace Hand' move 'Up and Back', its 'Primary Motion Back Swing Path' which is the precursor to the 'Hand Delivery Path' we have discussed.

Stand up and do this Drill in 'Slow MOTION' stopping at the various and progressive 'Swing Sequences'. Now that you 'Conceptualize and Intellectualize' you are in a position to 'Actualize' and 'FEEL' the 'Components and Procedures'.

This is still all a 'GAME OF ROUTINE and REMEMBERED FEEL'.



Lines & Planes of the Brace Lever
Hand (Shaft), Wrist, Forearm, Elbow, Shoulder
Swing Sequence #8 ... Impact



Lines & Planes Of The Target Lever
Swing Sequence #6 ... Target Lever Horizontal



Lines & Planes Of The Target Lever
Swing Sequence #8 ... Impact

A SUGGESTION:

Pay a visit to your local 'Video Analysis Expert' and have your Swing Analysed along with a good discussion of the 'Basic Angles and Lines' of a good Swing. If you do not have one locally, drive! Experts will invariably have a 'Computer Library of Swing Models' which you might view with your teaching professional. Visual comparative perspective is a strong learning tool.

Ask this person if you might have several 'Print Outs' of the 'Model Swing and Yours' with the 'Primary Lines or Axes' over drawn for your permanent reference. Usually the 'Video Tapes' are made in the VHS format and should thus be 'Voice Over'; a beneficial concept. Get a copy.

You will find benefit and understanding in 'Scribbling Stick Figures of Golfers' defining the proper 'Angles and Lines' as well. You do not have to be an artist to participate! Don't be bashful!

Stay at this 'STUFF' long enough and we shall reduce you to a 'Bunch of Lines and Angles' in an \$85.00 logoed Ashworth and Aligator FootJoys! How humbling!

22) **IN THE BODY TRIANGLE:**

BODY ENVELOPE FIRST:

I wrote about and drew you a diagram showing the 'Address Envelope' which was an indication of good 'POSTURE' at SET-UP; all the 'Components' in the correct location prepared to 'EXECUTE' the 'Pre-Selected Procedure'. Each body type and individual will fit into a slightly different 'Envelope' but we all have an 'Optimal Address Envelope'. If you change one primary 'SET-UP Component' your 'Envelope' will change its shape. Once you figure out your 'Optimal Envelope', you must conform to this uniform shape in order to be 'Consistant'. This exercise primarily focuses on the 'CHIN Tallish' and 'Spinal Inclination' component but it includes the 'Hands Position' (Levers hanging comfortably from the Shoulder Sockets) as it varies for each Club depending on the overall length of the Golf Club. You will notice that the Clubhead location is important and forms one of the base corners while the rear vertical leg encloses your butt.

The 'Plumb Line' from the base of your skull reveals some interesting relationships of the Shoulders, Hips, Knees and Heels as well. Your Shoulder Sockets are quite in line with your Knees. This stands to reason as your 'Counterbalance' must have roughly an equal MASS in front of the 'Center of Mass' (Plumb Line) as behind it. You can see that your Head, Hands and Arms are generally in front and that the 'Abdomen, Rearend and Thighs' form the counterbalance.

You will see that I have put the illustration here again just to stimulate your memory and thought process. The 'Mental Image' of what your 'SET-UP Configuration' will aid in your getting back to this 'Configuration at will. You know your 'SET-UP Configuration and ROUTINE' must be boringly 'Consistant' in order for your to repeat swings.

Again, it is important that, when you change Clubs, your 'Primary Adjustments' take place in the 'SLOPE OF YOUR LEVERS' and not in changing your 'Spine Angle or Shape'. Why do I say 'Shape'? Because most people have too much 'Curvature in their Spines' and when they pick up a shorter Golf Club, just add more 'Curvature' which is NOT user-friendly to your 'Spinal Crankshaft'. The crankshaft in your automobile motor will simply self-destruct if it were to have any curvature. Think about that. Yours does as well, the process just takes longer. Ask your chiropractor and he will confirm this. You folks with improper 'SET-UP' keep these professionals quite in business! The properly 'EXECUTED' Golf Swing is beneficial to your back!



Body Envelope at Address Ready - Down The Line (DTL)

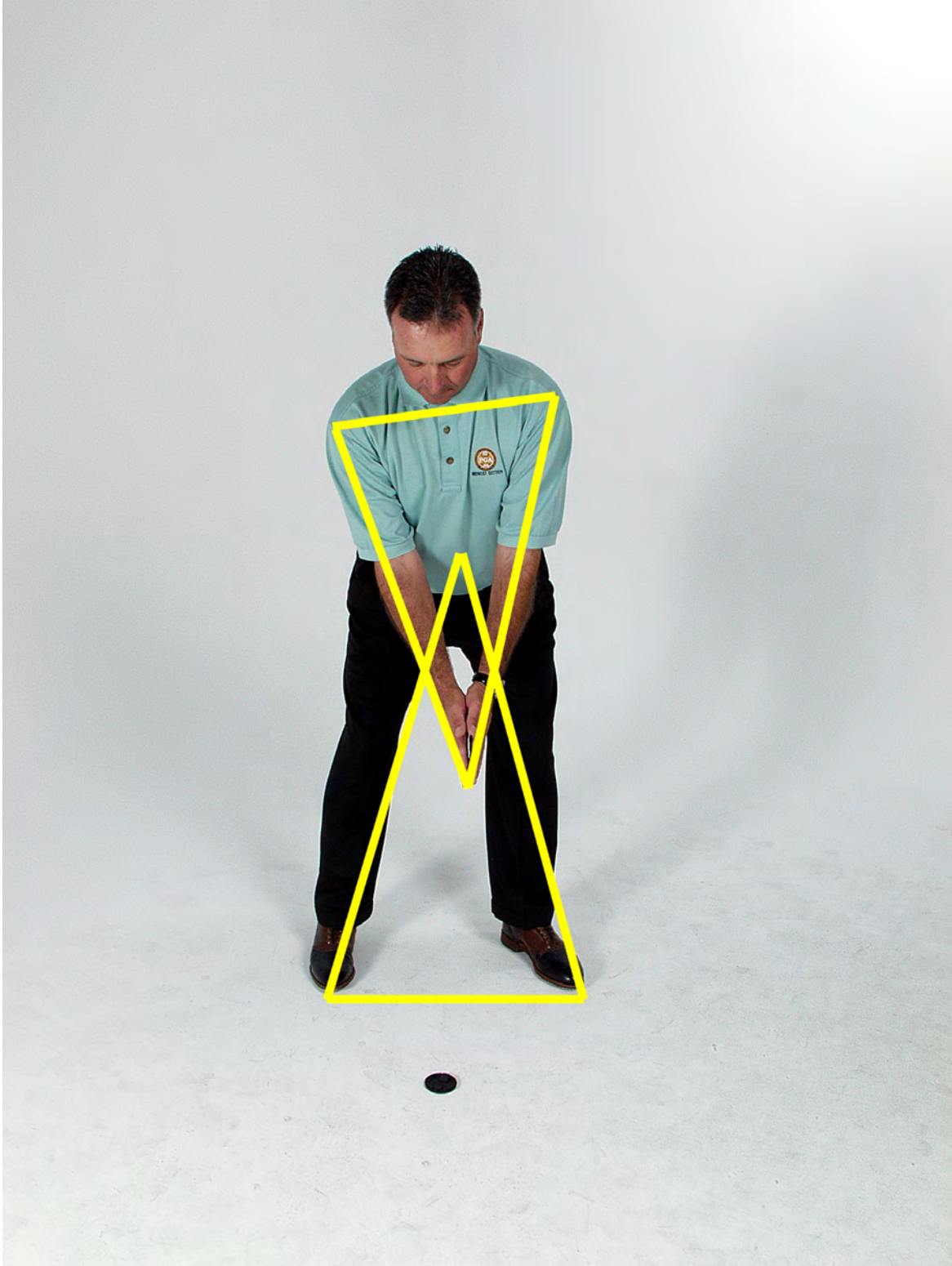
Notice that all the Body Parts fit into the 'Address Envelope'. The top of the 'Envelope' is just above the top of the Head.

NOW TO THE TRIANGLES:

Notice firstly, that the top apex of the triangle, where the two longest sides of the triangle meet, is located at the 'Base of the Skull or the Top of the Spine'.

As well, I often deal with these same issues using a 'TRIANGLE' to demonstrate proper 'CHIN Tallish', Butt Outish, with a little Sit-Down, Feet in the Right place under your MASS, and your Clubhead in the correct place as well. The only difference between this and the rectangular 'Envelope' is that of using a three sided shape rather than a four. Your Butt gets left out in the breeze! Not really fair is it?

Remember, this picture is about 'The Upper & Lower Bodies', about 'The Axial and The Radial', 'The Core and The Lever Assemblies'.



Golfing Machine Triangle at Address
Down The Line ... Slight Aft Tilt

You can again see the 'Weight Distribution of the entire Body MASS' with good balance over the balls of your Feet. Again there is a 'Plumb Line' roughly from your Shoulders to this 'Foot Balance Point'. Your Butt, which is behind your Feet, counterbalances your Head, Neck, Shoulders, Hands and Arms (Levers) as well as the Golf Club which are forward of the 'Plumb Line'. If you are 'Out Of Balance' you will have difficulty Swinging ON PLANE'. You can almost count on a 'RULE'; 'OUT OF BALANCE, OFF PLANE' and certainly out of control.

Again, it is key to note here in this 'Body Triangle' that as your Golf Club gets longer, ie. Driver vs. #5 Iron, your 'Spine Angle' does not change but minimally; only the Base of the Triangle shortens and your Hands get closer to your Thighs. (DTL View) Swing Plane gets slightly more 'Upright'. In the 'Body-On View, your STANCE will get slightly 'Narrower' and your 'Spinal Aft-Tilt' will decrease slightly with the shorter Club. (see Chapter, the 11 Swing Sequences) You already know all this house-keeping stuff! Right? Of course. We covered it earlier!

23) **THE SECOND TRIANGLE:**

This is very similar to the 'Body Triangle' above, but its 'Top Apex', where the two longest legs or sides meet, come together at the Brace Shoulder Socket or the 'Top of the Brace Lever Assembly'.

When we draw lines from here down to the Brace Heel and then horizontally forward to the tip of your Brace Big Toe (Brace Toe Pressure Point) and back diagonally up to the Brace Shoulder Socket we get another useful triangle. This third side can be called the 'Hypotenuse of the Triangle'. Notice that the triangle is approximately a 'Right Angle Triangle'.

It is called the '**NET LEVER TRIANGLE or ANGLE**' (NLA) which clearly portrays the 'Average Slope of the Arms and the Club Shaft' at whatever 'Address Set-Up Position' (SS #1) you have 'Pre-Selected due to the Component Selection. What I mean by this is that the longer the Golf Club the farther away from your body are your Hands and, of course, the 'Clubhead Tip of the Triangle'. The reverse is true as well. Shorter Golf Club means a steeper 'Slope' to the 'Longest Side of the Triangle' and the closer will be your Hands to your Thighs. In this configurations, your Clubshaft Plane will be 'Steeper' than it would be for a 45" Driver where the Clubhead is farthest away from your Heels, one end of the triangles base.

I do this drawing so that you have a better picture of what takes place as your Golf Club progresses from longest to shortest; so you know what your 'Address Shaft Plane' is all about. This is the 'Initial Shaft Plane' to which you should reasonably adhere or conform throughout the entire Back and Front Swings. The topic here is 'SWING PLANE'.



Net Lever Angle Triangle ... SS#5
Tip Of Shaft-Sole to Brace Wrist, Brace Elbow, Brace Shoulder
Pay Attention To The WRIST BREAK



BEND & STRAIGHTEN SEQUENCE ... SS#6
123 123



BEND & STGRAIGHTEN SEQUENCE ... SS#7 Pre-Impact
123 123



BEND & STRAIGHTEN Sequence ... Impact SS#8
123 123 Brace Lever 'Primary Articulating Joints'

NET LEVER ANGLE 'A':
(Brace Shoulder Socket)

You can see from the drawing that your 'Initial Shaft Plane' or certainly your 'Net Lever Angle' is roughly 'Perpendicular to the Spinal Crankshaft or Spinal Axis'. This physical condition is key. It makes 'Turning the Golf Club' around the 'Body Axis or Spine' on about the 'Initial Address Plane' possible. We know that 'Swinging The Clubshaft and Clubhead ON PLANE' is one of the '**THREE PRIMARY ABSOLUTES**'. The other two are ... ?

You know them. If not, turn to your 'Trust Tour Guide INDEX' and do some reconnaissance. That's why you bought this 'GOLFMYTH Encyclopedia'. Right?

NET LEVER ANGLE 'B':
(Brace Elbow)

The top of the 'A' triangle is formed by the Brace Shoulder. We can also form a very useful 'N.L.A. Triangle' with the top of this three-sided geometric shape having its apex at the Brace Elbow. I happen to think IMPACT takes place with your Brace Elbow as the 'PIVOT Point of the Lever'. Through IMPACT the Brace Elbow comes into line with the 'Flexed Brace Knee' and the Brace Hip Socket. This is the key 'Junction or Transmission Intersection' of the 'Leg Drive POWER' which is where the 'Leverage or Thrust Pressure' really all comes together so that it can be rapidly fired through the 'Forearm, Wrist, Hand and Shaft to the waiting and Speeding Clubhead'. Potential or Stored ENERGY has very dynamically become converted to 'Kinetic ENERGY' that has 'Explosive POWER, Momentum. Inertia and Velocity. (MIV) This 'Inertia' will be transferred to the Golf Ball Projectile and the 'Purer The IMPACT on the Sweet Spot (OPA), the more efficient will be the transfer.

You can clearly see how your 'Proper SET-UP Procedures' make for a pleasant or unpleasant event! Preparation is key! All this in one 'Magic Envelope or Triangle' no less!

Man is an amazing 'Machine; indeed.

24) **WHAT I FEEL:**

I just came back from a rare opportunity I was forced to create. I had to practice for a short while. There are several 'Pro-Ams' and

'Club Tournaments' coming up to which I have been forcefully invited. I seldom play due to other responsibilities but the pressure being applied by people who can exert considerable leverage on me are winning out. So it is time to get the sticks out, get the rust off and do the same with this 'Aging Golf Machine'. I can hear you asking; "But your clubs are stainless steel so how much rust could they have on them?" Right?

Well, I have eight or nine sets of really superb sticks graciously given to me by some of the major suppliers, three of which are the traditional forged blades. When you strike a lot of Balls the chrome and primary face plating wears exposing the raw steel. It actually gets rusty and you need to attend to it. I have such wonderful 'Custom-Fitted' Golf Clubs, it is a shame I do not play a round a month with each of them. Over the past twelve months, I have played 'ONE' eighteen hole round and several six or nine hole versions. You see, I figure that when I am fortunate enough to get in six holes, I just play them well and multiply by three!

How do you maintain a handicap when playing so little? When asked I just tell my friends that I 'Am Handicapped' and leave it at that! Back to having a 'GOOD FEEL'!

Getting the rust of the 'Old Golfing Machine', getting the 'Hinges Lubricated' is a task. One of the key aspects that I had to work on was the 'FEEL OF BEING ON PLANE'. When you are 'On Plane' your 'Timing, Rhythm, Tempo, Cadence and Pace' all have a good chance to fall naturally into place. Newtonian Physics really wants these aspects to all naturally blend and they will given half a chance. To work on my 'Swing Plane' I stood slightly narrow in 'STANCE' and made 'ON PLANE Swings' with my eyes closed. I had a good friend stand 'Down The Line' and make sure that my 'Club Shaft' remained on the same Plane that I 'Pre-Selected' at Address FIX. Then he would record 1) the Address Plane Line, (SS#1) 2) the Top Of Backswing (TOB) Plane Line (SS#5) and then the 3) IMPACT FIX or IMPACT Zone Plane Line (SS#8) that I created and maintained through a series of 'Five TICK TOCKS'. Remember, without stopping.

Some people find observing the 'Plane Lines' easiest to accomplish using a 'Dial Indicator' of sorts. You can take a clip-board or just a yard-stick or Short Iron Shaft and hold it about 'In Line' or 'On The Address Plane and extend this to above the subject's head so that it will be in place for the TOB Plane. (SS #5) Now just hold the 'Dial Indicator' through the 'Five TICK TOCKS' and remember when and if the Club Shaft and the Target Lever or Target

Arm and Hand get off the line during the entire sequence. You will find that, once warmed up, the subject will be 'On or Off Plane' during the same intervals in each Swing unless there is deliberate 'Manipulation'. That is why we do 'Five TICK TOCKS' and not just make one Full-Swing. Besides I want to 'FEEL Repetitive Moves' '**BACK AND UP**, and '**DOWN AND THROUGH**' so that I create that '**D.O.F.T.**' Geometry we have talked about.

The 'Levers and Body Combination' make

'ONE MOVE BACK & UP. ONE MOVE DOWN OUT FORWARD & THROUGH'
'D.O.F.T.'

and in this smooth and 'RHYTHMIC MOTION' (the 4 B's) the 'Brace Hand and Lever' 'WINDS UP or COILS the Lower Body Machine' 'From the Top Down' or 'From the Outside-In' so to speak. This is a lot like taking hold of the top outside corner of a big spring-loaded yard gate, farthest from the hinges, to open it. This 'Human Golf Machine' has a very big and tough spring at its 'Core' and soon wants to 'Un-WIND, Un-COIL and PIVOT' back towards its origin.

To see this 'Human Body Gate' in action, you can elect to use a tall mirror as are available in the industry, but I do not like them overall as you have to make your Swings looking ninety degrees 'AFT' which is NOT how the Golf Swing is meant to be executed. To make a proper 'FEELING Swing' you need to be absolutely 'SET-UP' in your 'Optimal Position' and that means 'CHIN Tallish Looking Slightly Down Your Nose At The Ball' and NOT Down the Line' to your rear. As soon as I get my '**Swing ON PLANE**' and repeating, I simply pay very close attention to what I 'FEEL' and then work diligently on 'REPEATING THE FEEL'. My dominant 'FEEL', other than 'Spine Angle' in place, is that 'One Move Up and Back followed smoothly by One Move Down and Out'.

So, what did I 'FEEL' this afternoon? A little Tight and Rusty. After warming up thoroughly and taking the 'Oil Can' to my joints, I gradually felt a very relaxed Target Lever, the '**Target Lever Assembly**' being taken away from the Ball with my 'PIVOT' while being 'Controlled or Stabilized' by my 'Brace Lever'. You know the '**4 B's**'; 'Brace Hand, Brace Shoulder, Brace Foot and Breathe' or its sister slogan the '**4 P's**'; 'Push, Pinch, Pulmonary and Pin'

which is very similar.

When I was told this was taking place by my observer (I could place a high-speed digital video Beta-Cam looking 'DTL' and observe myself in one of our 37 inch T.V. monitors that are set on the floor in front of my Hips or 'Body On' (B/O) as well, but I prefer the company) I would record the 'FEEL'. What I did 'FEEL' today was very much '**ONE MOVE BACK & UP and ONE MOVE DOWN & OUT**'; very smooth and controlled by the MOTION of the Target Lever and the STABILITY of the Brace Lever. (see Chapter 'the BRACE SIDE LEVER ASSEMBLY') We know that proper good 'Deep Diaphragmatic Breathing' is very beneficial to TEMPO and RHYTHM. It is also healthy in general so please always use this simple procedure in very swing including just before you take your Putter away. "One And Thru". I know you figured this out and remember!

STABILITY:

Stability in the 'Lower Body Machine' promotes or enables stability in the 'Upper Body Machine'. There is no other way except '**FROM THE GROUND UP**'.

Interestingly, when I felt this 'UPPER BODY MACHINE' stability, I also simultaneously felt the 'LEADING LOWER BODY MACHINES' tremendous stability with the dominant 'FEEL' for me being the very stable SET and flexed Brace Knee. I know this is the 'Base of Your and My PIVOT' so I take intimate care to make sure it is 'Loaded Target Side' before I initiate the 'Take-Away'. You see, I know that I must keep the '**Flexed Brace Knee**' stable which is a 'Secondary Absolute'. I know I am going to expose or subject it to some 'Stress' during my 'Turn Brace COIL' so I 'Prepare It' for this precise 'Stress'. I do not want, to put it in different terms, my Brace Knee to 'FEEL' like the Hips and Abdomen sneak up on it with their 'LOAD'. I want it to be ready! Again, the only way I know how to do this reliably is to place it at least 'In The Direction Of Its Fully-Loaded and Brae Leg Driving Position', that being 'Flexed nad Forward'.

Once I have done this, I can trust my 'Brace Knee' to accept the 'Load' without breakdown or sway to the Brace Side which is a very weak move; one which will cause your 'Spinal Crank Shaft' to Shift or Sway to the Target Side. With this ACTION comes the 'Raising of your Brace Shoulder', what I call the 'Rocking Chair Action', which, in the Full Swing Mode is simply NOT ACCEPTABLE. Any time

you get this 'Elevation Change' in your Shoulders, you get 'OFF PLANE' in the Shoudlers and then, unavoidably 'OFF PLANE' in your Clubshaft. The 'Forward 'Sway or TILT' almost guarantees that you are going to Swing 'OUTSIDE-IN or Over-The-Top'. You know the results of this Move; the good old 'Pull or Slice' depending on your 'Hand and Wrist ACTION'.

Fast Hands = PULL
while Slow Hands = Block Fade
or Ball Flight to the
Leaky Low ENERGY Side of Target Line.

If your Shoulders are 'OFF PLANE' your 'Primary Target Lever' will be 'OFF PLANE', your 'Clubshaft' will follow suit and then the 'Clubhead' will never have a chance to get back to SQUARE and make contact with the Ball in the 'Centre of MASS' or 'Sweet Spot' at rapidly increasing Velocity. You know that this 'Sweet Spot IMPACT' is essential for 'Maximized ENERGY Transfer' which produces 'Maximum Ball Flight Velocity', which creates 'Maximum DISTANCE'.

Darn, this Golf Stuff all seems to be 'Linked Up'! Is it ever! ... **'Toe-Nails to Finger-Nails'!** ... From the Ground Up.

True. It is just one big 'Chain-Reaction' which, when started correctly and left to its natural sequence, makes Balls Go Away ... straight and far! Such a deal! And you know, once you have this figured out and discover how to 'SET IT UP' and stay out of the way 'DURING THE EVENT', you will be a very happy camper! Centrifugal FORCE, Angular MOMENTUM, the Physics of ROTATION and the Geometry of the CIRCLE will take care of the rest. You will not have to and you must not 'Manipulate the Clubhead' during any part of the entire 'Swinging MOTION'. If your Hands and Wrists take any part other than that of '**RELATIVELY PASSIVE CLAMPS**' you are in for the burden and frustration that comes with 'PUSH, PULL, Hard FADE, Hard DRAW, Slice, Hook, FAT, THIN, HEEL, TOE' and the rest to which you have perhaps given your own personal names.

You will discover not to try to 'Make IT Happen' but to 'LET IT HAPPEN' and especially in the Full Swings with your longer shafted

Clubs. You might 'HIT' a Short Iron but you will 'NOT HIT' a long one!

The rewards for discovery and implementation of these skills is beyond belief. I cannot tell you how good '**IT**' 'FEELS' but wish you the very best in your endeavours to find out 'First Hand'. I know you are working at it and will make the 'Journey'.

How do I know? Because you are still with me after hundreds of pages. I'm truly flattered!

25) **PLANE AND SIMPLE:**

Let me finally again summarize this issue of 'Being On Plane'. It is worth the time as the word is so often misunderstood or not understood at all. If you have doubts, just ask ten people at random to explain the concept in clear and easily understood terms! Good Luck!

Think 'Lower and Upper Body Machines'.

You will establish what I call 'Your Initial Shaft or Swing Plane' at 'Address Ready', or better still, at 'IMPACT FIX'. When you are 'SET-UP', Club In Hand, that 'Brace Knee ready to perform' (It sets up your Spine angle or 'Spinal Plane' from the very start. You know the 'Tether Ball' function we have so often discussed), the Shaft will be on a specific PLANE relative to the ground or what we have come to correctly call the 'Base Line Of The Swing Plane'. Please remember all this 'GOLF Stuff' is consistently about 'Straight Lines and Circles', some of which are not very straight or round! But you can make them beautifully productive!

Whenever you get into 'Motion' in your 'Take-Away', that 'Motion' will occur on a spatially geometric physical discipline of routing called your 'Swing or Motion Tract or Plane'. I like to think of it as my Clubhead or Club Shaft, and other body parts, drawing lines in the air like a '4th of July sparkler swinging through space at night'. You know the fun we all had in our youth!

So now we have, what I call, an 'Optimal Swing Plane'. It is an adjustable physical reality. We can deviate from this very easily. Here is how!

Very basically, the more 'LBM' or 'Round & Round' you are

('RATIO'), the 'Shallower or Flatter will be your Plane'. The more 'UNDER or BELOW Your Optimal SET-UP Pre-Selected Swing Plane' you will tend to be.

The more 'UBM' or 'Up & Down' you are ('RATIO'), the 'Steeper or More Upright will be your Plane'. The more 'OVER or ABOVE Your Optimal SET-UP Pre-Selected Swing Plane' you will tend to be.

Remember, you 'Initial SET-UP Swing Plane' is primarily determined by the 'Length Of The Shaft In Your Pre-Selected Club'. This 'Tool' establishes your 'Hand, Forearm, Elbow and Upper Arm Position'.

These are words or terms you might want to understand as teachers, instructors and 'Golf Nuts' like I am, use them all the time.

Making a good 'Golf Swing', which will be 'ON YOUR Pre-Selected SWING PLANE', means or requires a 'Balanced Lift to Rotation Ratio'. Simple!

As your 'Lower Body Machine' (LBM) is going 'R&R' you need the right amount of 'UBM' 'R&R' to create a good 'Swing Plane'. It is best accomplished by 'FEELING' 'One Move Up and One Move Down' while saying to yourself, 'One and Through - PIN'! Use all your 'Golf Tools' to their optimal! All that is at stake is your 'Pleasure'!

C15]

ON PATH
The Two Axis Graph

UP & DOWN and ROUND & ROUND
Upper & Lower Body Machine

We now all know that the 'Human Golfing Machine' is comprised of three distinct 'Parts or Aspects'. **1)The Lower Body Machine** ('LBM'), **2)The Upper Body Machine** ('UBM') and **3)The Head Machine** ('THM'). When properly combined, these three join in making 'Golf Music' that gives us endless pleasure. Or can beat us to near death! It all depends on how much we work at understanding and earning the right to make successful 'Golf Shots'.

There is no magic! We must just logically manage the challenge the old fashioned way ... "We Must Earn 'IT'!"

We all know as well about '**Clubhead PATH**' and its ability to be one of three conditions. These are **1)Inside Out**, **2)Square To Square To Square** ('Parallel') and **3)Outside In**.

We also know about '**Clubhead PLANE**' or '**Swing PLANE**'. There are also three conditions in this aspect. When 'Swinging The Clubhead On Its Inclined Plane', one can be either **1)Below Plane**, **2)On Plane** or **3)Above Plane**.

SWING PLANE & THE TETHER BALL POLE:

Let us deal with this 'Swing Plane' for a moment and see if we can make any sense of this, sometimes rather nebulous term.

'**The Tether Ball Swings Around The Pole**'. When the 'Axis or Pole' is plumb, the 'Ball and Rope' will naturally and uniformly swing around the 'Pole' at almost right angles to the 'Axis' if the 'Rotational Velocity' is high enough to produce adequate 'Centrifugal Force' to get the 'Ball & Rope' on a 'Swing Plane' that is 'Pirpendicular To The Pole'.

This simple 'Physics' should make at least reasonable sense.



Very Important 'Linear Picture' ... STANCE is Square Square
Why? We are a 'Stage 1 Putting Procedure' . No Pivot

Keeping this in mind, remember that the 'LBM' produces all the 'Horizontal Motion' or all the 'Round & Round'. The 'UBM' produces all the 'Vertical Motion' or all the 'UP & Down'. When we have these two distinct '**Planar Motions**' operational and mixed, we will end up an '**Average Motion**' somewhere between 'Round & Round' and 'Up & Down'. This is appropriately called the '**Resultant Plane**'.

This is about 'Swinging The Golf Club Around A Forward Inclined Axis With Some Aft-Tilt' which sets up the average of this 'Round & Round' and 'Up & Down' enabling us to get the 'Squarely AIMED Clubhead Away From And Speedily Back To The Butt Of The Ball' in a predictable manner.

THE TWO AXIS GRAPH:

We all know and understand the basic '**Two Axis Graph**', right. If you consider the 'Motion Formula' 'Distance Equals Rate Times Time' or ' $D = RT$ ', you can portray this information graphically. Let us place the 'Speed Information' on the 'X or Vertical Axis' and the 'Time Information' on the 'Y or Horizontal Axis'. Now we can show on a piece of paper what happens if we drive at 30 miles per hour for 4 hours. Take a look at the ' $D = RT$ ' graph below.

SWING PLANE:

Your 'Resultant Graph' comes from the formula ' $X + Y = Z$ '. This emanates from the mechanical ' $TURN + LIFT = SWING PLANE$ '.

BACK TO THE NEWTONIAN LAWS:

The reality of 'Motion in the 'Golf Body Machine' and especially the 'Clubhead' is not based on 'Whims' but on 'Physical Facts'. The sooner we learn about them 'Cerebrally', the sooner we shall grasp the 'Mechanics' and then know the 'Feeling'.

In this manner we shall become able to 'Repeat The Feel' and learn the magic of joining the ranks of those rare 'Reflex Golfers'. Don't we wish?

'LBM':

The '**LOWER BODY MACHINE**' provides all the 'Horizontal Motion' or all the 'Round & Round. Exclusively!

'UBM':

The '**UPPER BODY MACHINE**' provides all the 'Vertical Motion' or all the 'Up & Down'. Exclusively!

If one executes the '**Brace Handed Take-Away**', (see 'The Balsa Airplane Concept')(see 'The 4 B's) the 'Back Swing Move' shall be accomplished '**From The Top Down**' and '**From The Outside In**'. This rathre naturally 'SETS-UP' and invotes proper 'Physics & Mechanics' that abids by those Newtonian Laws we so often respect. When we achieve the 'Take-Away and Back & Up Swing' in the above manner, we will soon discover that we initiate the 'Down & Out Front Swing' 'Gravitationally', 'Hands and Arms Dropping', followed by applied or 'Delivered and Released Pivot Pressure' via activated 'Brace Leg Drive'.

This 'Motion Force' is absolutely '**FROM THE INSIDE OUT**' and '**FROM THE GROUND UP**'. If you do not fully understand this 'Scientific Reality', do nto pass go until you contact your 'Personal Certified 555 Master Teaching Professional' fo r agood old 'Heart To Heart'.

If we understand that the 'Lever Assemblies' (see 'Tether Ball Pole Concept' - the 'Rope & Ball'), we will know that 'The Dead Rope Concept' is alive and well. The 'Target Lever' provides 1) **Swing Radius Control**, 2) **Clubhead Aim Control** and 3) **#4 Pressure Point or connection of the 'Target Pectoralis Area' to the 'Target Lever**

Biceps Area'. Thus the 'Rotating Targetward Abdomen, Trunk, Chest & Throat' actually applies 'Pressure' to the 'Target Lever' thus moving it away in the direction of the 'Target'.

The 'Lever Assemblies' themselves **'DO NOT HAVE ANY HORIZONTAL MOTOR'!** They can only create 'Vertical Motion'. They cannot produce any 'Horizontal Motion'. They cannot produce any **'PUSH'**. They can only provide **'PINCH'**.

When you attempt to achieve any 'Round & Round' or 'Horizontal Motion' with your 'Hands and Arms' you are in for a rough ride. You will tend to 'Push, Block and Pull' that 'Clubhead Through The IMPACT & SEPARATION Zone'. This makes 'Controlled Ball Flight' a myth!

AFT-TILT:

We know about that 'Tether all Pole' which is really a way of addressing the 'Spinal Crank Shaft or Axis'. This 'Spinal Core' can be 'Purely Plumb', straight up and down, 'Inclined Forward or Back' or 'Tilted Forward Towards The Target ('Forward Tilted' or 'Aft Tilted Towards The Brace Side') Of course there are combinations thereof.

The 'Overall Condition or Configuration Of The Spinal Core' directly determines and 'SETS-UP' the 'Swing PLANE' and thus the 'Clubhead PATH'.

Achieving proper 'Spinal Axis' **THAT SUITS YOUR OWN PERSONAL PHYSIOLOGY** at 'SET-UP' is a critical task! There is 'No One Way' to swing a golf club!

Either get it right or suffer the not so good or nasty consequences.

**"Getting 'IT' Right Or Wrong,
Depends Upon How Much Suffering
You Can Consciously Stand!"**

It's your parade!

TO SPECIFIC PATH:

When we allow the '**Brace Handed Take-Away**', the 'Human Propeller', to create '**One Move of the Clubhead Away or Back & Up**', we articulate the very simple and extremely powerful 'Pivot' ('Accumulate, Load Store'). When we engage the 'Big Muscles' to do the 'Work', the 'Hand and Clubhead PATH' is very neutral and automatic. '**One Straight Line Move Back & UP**' (see 'Resultant Motion Line'). We do not 'feel' like we have to 'Manipulate' the 'Lever Assemblies' and the 'Golf Club' anywhere! It simply 'Flows'!

Essentially the 'Hands Move The Clubhead', but once actually 'In Motion', the 'Lower Body Machine' ('LBM') takes over. As it moves 'Round & Round', the 'UBM' 'Lever Assemblies' 'Lift and Drop' creating 'PLANE' and actually 'PATH' as well.

TURN TO LIFT RATIO PRODUCES SWING PLANE:

If one gets out of balance in this cooperative 'Lift UBM and Rotation LBM', one will find 'PATH & PLANE' issues abounding!

If you have too much 'Round & Round Motion', your 'Hands and Clubhead' will become 'UNDER or BELOW PLANE' and the 'PATH' will become too much 'Inside-Out'.

If you have too much 'Up & Down Motion', your 'Hands and Clubhead' will become 'Over or Above PLANE' and the 'PATH' will become too much 'Outside-In'.

It is 'Lift To Turn Ratio' that accomplishes proper 'PATH & PLANE'. In fact, proper 'Lift To Turn Ratio' **IS** the mathematics of proper 'PATH and PLANE'!

MANIPULATION:

It is worth saying one more time, that 'The Clubhead Wants To Stay on PATH & PLANE' (see 'Tether Ball Pole Concept'). It is our 'Manipulation', extra and inefficient motions that cause it to vary from neutral 'PATH & PLANE'. If we are most efficient, we are mostly 'On PATH & PLANE'.

In a way, the less we do produces more!

"Clickers", #5 Irons that rocket balls far into the future so often 'Feel' effortless! That is efficiency in the raw! Wish you well in pursuit of 'Reflex Golf'!

A LITTLE MORE LIFT vs. ROTATION:

You have heard us speak of this topic before and we are going to stay close to home and discuss it one more time ...

So, let us shift gears to the familiar topic of 'The Golf Swing Plane' for a few more moments. Interestingly, the 'Clubhead' (along with other related and connected parts) is what swings on 'Plane' which produces the 'PATH'. Let us just stick to the consideration of 'Plane'.

Picture yourself or even 'SET-UP' at 'Address Ready or IMPACT FIX' with your 'Clubhead Soled' on the ground or floor. Place your 'Target Foot & Shoulder' against the wall. Your 'Hips & Shoulders' are 'Pirpendicular To The Wall'.

Consider the 'Two Axis Graph' again for a moment. You are now standing in a real life size version of the graph! The 'Y Axis' is the floor. The 'X Axis' is the wall.

If you 'Swing The Clubhead' dead flat or horizontal, ('Zeroing Out All Lift'), the 'Round & Round' will keep the 'Clubhead Soled' or in contact with the floor. This is the 'Horizontal Plane'.

If you 'Swing The Clubhead' straight up vertically, in front of your chest, (Zeroing Out All 'Rotation') your 'Hands & Arms And The Clubhead' will swing nominally 'Up The Wall'. The 'Clubhead PATH' will follow 'Up & Down The Wall'. This is the 'Vertical Plane'.

When we smoothly 'MIX' these two 'Planar Motions', we produce what again is called the 'Resultant Planar Motion'. This is the actual 'Golf Swing Plane'.

You can now visualize and understand that, if there are any 'Conditional Changes in the Spinal Axis' ('Thether Ball Pole') during the 'Planar Swinging Motion', the 'Orbit Of The Clubhead' or 'Tehter Ball' will be directly affected. Just out of interest, there is a slight 'Lead & Lag Factor' in the affect. The 'Orbital Oscillation' occurs just a moment after the axis change.

This is a very good example of the skill your '555 TEAM' calls '**Isolating The Parts**'. If we can 'Feel and Understand The Parts', we can undrestand the 'Whole' as well!

Lift vs. Around Graph
Up & Down vs. Round & Round
No Resultant Line
Vertical vs. Horizontal Produces Swing Plane

ISOLATING THE PARTS:

The 'LBM' goes 'Round & Round' (R&R) ... '**Horizontal Exclusivity**'

The 'UBM' goes 'Up & Down' (U&D)... '**Vertical Exclusivity**'

If we perform these two distict functions simultaneously and at the same 'Rate Of Movement' ('Pace or Speed'), we will move the 'Clubhead' on a 'Line or Plane' that is 45 degrees to the floor and 45 degrees to the wall. In other words, the 'Resultant Swing Line' is 'Half Way Between the Floor and the Wall'. This is the 'Swing Plane' you produce with perfectly timed and blended or 'Matched Motions'.

ONE MOVE BACK & UP:

The optimal 'Post SET-UP Motion' in the above 'Take-Away Hand Path', which produces the 'Resultant Swing Plane', is '**One Move Back & Up**' from the 'Address Ready' or IMPACT FIX Position' right to the 'Top Of Back Swing' ('TOB').

If you were to make the 'Back & Up Swing' as Jim Furyk does, with an '**Outside, Up & Back, Inside Out Loop**', you are making two or three independent yet sequential moves. You will 'Feel' these various '**Isolate The Parts**' moves as soon as you are aware of them. Awareness is the purpose of the 'Isolate The Parts Exercises'. When we understand the existence of certain reality, we can optimize or

even change elements ('Components') at will. You may yet become a 'Golfing Machine'!

TARGET LEVER BREAK DOWN:

Remember, the 'Back & Up Swing' is a '**Brace Handed and Brace Sided Motion**'. Anyone who prefers to make it the wrong way, with the 'Target Side', can suffer the ills of that 'Mechanical Error'. If the '**Target Lever Break Down**' or that '**Reverse Pivot & Reverse C**' are known to you and disliked, if you are suffering from a chronic case of the 'FAT THINS' and 'Pushes and Pulls', you might reconsider taking the 'Golf Club' away from your 'SET-UP Position' with your 'Brace Hand' and a very 'Soft Target Hand' and that 'Dead Rope Target Lever'. This will lead you directly to better 'Clubface Control, more reliable Swing Radius and a predictably effective #4 Pressure Point'. These 'Impact, Pivot and Plane or Delivery Components' (see 'ALSDR' and '5 Essential Elements') are central to your 'Linksy Happiness'.

Just knowing about them is the very real 'First Step'!

ON, ABOVE AND BELOW PLANE:

Now, further, let us 'Pre-Select' that we shall 'Swing The Clubhead On This 45 Degree Resultant Plane'. It is our task or objective!

If we perfectly 'Blend or Match The Horizontal and Vertical Motions' we shall follow the 45 degree Swing Plane'. This is referred to as 'Being On Plane'.

If we 'Rotate' the 'Clubhead Faster R&R or Horizontally' than it is 'Lifted Vertically', we will 'Swing It Below The Resultant Swing Plane' or closer to the floor. This is called '**Being or Swinging Below Plane**'.

The flip side is true as well.

If we 'Lift' the 'Clubhead Faster U&D or Vertically' than it is 'Rotated Horizontally', we will 'Swing It Above The Resultant Swing Plane' or more up the wall. This is called '**Being or Swinging Above Plane**'.

You will hear your '555 TEAM' speaking about 'Matching Components & Procedures'. This is an example of its applicability. When we have 'Balanced Lift and Rotation', balanced 'Upper Body Machine' and 'Lower Body Machine' 'MOTIONS', we then move the 'Clubhead' on a 'Pre-Selected PATH & PLANE' that, in turn, naturally produces 'Pre-Selected Results'. This enables us to be predictable and to play 'Reliable and Repeatable Golf'.

We can thus learn 'Remembered Feel' and perhaps, one day, become that very special 'Reflex Golfer' we aspire to become.

We all know how cool that would be!

I hope these few moments spent together on the topic of 'PATH & PLANE' has helped you to better grasp and understand '[The Logic and the Mechanics Of The Golf Swing](#)'.

Remember, the science of this 'Swing' is all about '[The Physics Of Rotation](#)' and '[The Geometry Of The Circle](#)'.

Thanks again you for your time!

"Welcome Aboard!"

"Enjoy The Ride!"

A LITTLE RELIEF

1) "The conscious mind allows itself to be trained like a parrot, but the subconscious or unconscious does not. This is why St. Augustine thanked God for not making him responsible for his dreams."

Carl Jung

2) "I could go on but I am restricted by my sense of good taste and tolerance! So I am going to steal off on my dromedary eastward over the dunes to the oasis where I shall find abundant food and water. Then I shall wrap up in a several heavy blankets to shield me from the cold desert night. As the sun and moon exchange places in the heavens over the desert-scape, we shall meet again! Gratefully, we might always be in eachother's minds even while those celestial partners chase eachother through the ever lightening and darkening space. Luck having its way, we may even be again in eachother's arms."

Dr. Karl Fischer
Short Story Writings
'About My Soul Mate'

3) An old gentleman in his 80's got up out of his recliner and was putting on his coat when his wife asked, "Where are you going?"

"To the Doctors", he replied.

Surprised, his wife asked, "Why? Are you sick?"

"No", he blurted. "I'm going to get me some of those Viagra pills."

With that, the elderly lady got up out of her rocking chair by the big bay window and started putting on her sweater. Surprised, the husband asked, "What are you up to? Going somewhere?"

"To the doctor too!" she replied.

"Why?"

Matter-of-factly, she said, "If you are going to start using that rusty old thing, I'm going to get a tetanus Shot!"

4) What is definition of a 'Tom Cat'? It is a 'Ball-Bearing Mouse Trap'! Just a little like your great golf clubs. Good servants! Tend to them a little regularly and they will look after long-term!

5) A professor of Greek takes his suit to a Greek tailor. The tailor looks at the pants and says, "Euripides!" to which he replies, "Yes, Eumenides!"

6) An lone electric eel was becoming very depressed and his keeper asked if there was anything he could do.

"Well, it's getting a little lonely in here," replied the eel.

So the next day the keeper dropped a female eel into the tank, but after swimming around for quite a bit the male was equally depressed.

"What's the matter now?" asked the keeper.

The eel gestured to his new tank mate and in a tone of resignation said, 'D.C.'

7) What is the difference between a cat and a comma?

A cat has its claws at the end of its paws and a comma has its pause at the end of its clause.

8)A group of bats, hanging from the ceiling of their cave, discovers a single bat STANDING upright below them on the floor of the cave. Surprised by this unusual behaviour, they asked this fellow; "What the hell are your doing down there?"

The odd fellow shouts back, "Yoga!"

8)Living on Earth is expensive, but it does include a free yearly trip around the Sun!

9)What did the bull elephant say to the naked man? "It's cute, but can it pick up peanuts?"

10)I am reading a most interesting book about anti-gravity. I just can't put it down!

11)All he asked for was a little good-night kiss, but she refused him with, "I don't do that sort of thing on my first date." To which he promptly replied, "Well, how about on our last date?"

12)There was this guy who went golfing every Saturday and Sunday. It did not matter what kind of weather it was, he was hooked on a round of golf on his days off.

One Saturday he left the house early and headed for the golf course, but it was so bitterly cold that he decided he wouldn't play that day and went back home.

His wife was still in bed when he pulled into the garage, so he quietly entered the back door, went to the bedroom, took off his

clothes and snuggled up to his wife's backside and said, "Terrible weather out there!"

She replied, "Yeah, and can you believe my stupid husband went golfing?"

13)How times change!

The United States once issued a '5 Cent Paper Bill'. Now all our bills are only worth 5 cents!

14)Women shouldn't have children after 35. Really, 35 children should be enough for anybody!

15)Isn't having a 'Smoking Section' in a restaurant rather like having a 'Peeing Section' in a public swimming pool?

(Makes me think of spelling class! 'P S E U D O'. The 'P' is silent like the 'Pee' in swimming!

16) The salesman of the year in a major corporation with over 550 sales staff was asked what his secrets to success were.

He gave a shrug of his shoulders and nonchalantly replied, "There are the usual things that our system requires. 'Know the product'; 'Make the calls' and 'Never take no for an answer'. You know this stuff!"

Then, after a moment, Dick carried on, "But frankly, I owe my success to consistently missing three foot putts by two inches!"

(Who ever said 'The Great Game Of Golf' has no place in business or life? Dick found it did!)

17) Two men are talking at work early Monday morning reminiscing the weekends events.

"What did you do this weekend Charlie?"

"Dropped some hooks into the water."

"Fishing eh?"

'No, golfing!"

18) It was mealtime on a small northeast feeder airline.

"Would you like dinner?" the cabin attendant politely asked.

"What are my choices?" the passenger asked.

"Yes or No" she blurted!

19) "This golf writer fills a much need gap!"

Moses Hadas (1900 - 1966)

From a literary review

Always keep a gentle and balanced mixture of 'Hard Work and Humour' as it makes 'Life' pass productively and tolerably.

Good luck in your 'Journey' too!



YOUR OWN STYLE!

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The 555 Golf Academy is the only golf instruction that is truly based on 'Kinesiology' ('The Musculo-Skeletal Movements Of The Human Body').

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Karl is a 40 year dedicated veteran who has come up through the golf trenches. Having provided in excess of 100,000 golf lessons, before long ago stopping count, Dr. Fischer continues helping good people improve and have more fun on a daily basis.

He says, *"We can make smart changes in clients' swings very much faster than they expect. Our proven system involves less cost and reduced frustration. Quicker smiles are a good thing!"*

It is estimated that the number of 'Junior Lessons' during Karl's career, years ago, totaled in excess of 30,000. Every year Fischer organized golf clinics for bright-eyed youngsters helping them to better understand the 'Golf Swing' and thus have more 'FUN'.

Seventy to eighty students per day, four days a week for ten to twelve weeks every summer adds up. His personal client list numbers well in excess of 10,000 students, a third of whom are still on his mailing list and contact him regularly for advice!

He says, *"This battle tested and proven '555 Golf System' quickly prevents or fixes negative playing issues ... permanently! We do not rebuild our patients. It is more prudent to simply modify rather than doing major surgery! Smart little steps we take are very predictable with certain outcome!"*