It’s All About Impact

The Winners of Over 100 Majors Prove It

Andrew Rice
reliable, but accuracy cannot be guaranteed by the author or the publisher.

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“I have known Andrew Rice since he was a young man growing up in Southern Africa. I have
always been thoroughly impressed with Andrew’s dedication and passion to play, teach, and constantly discover the intricacies of our great game. I know you will benefit from his diligent pursuit of finding the most efficient manner in which to play the game and produce results. The quest for improvement at every level of golf is never ending, but I am sure you will find Andrew’s thoughts to be an efficient way for you to achieve your potential.”

Nick Price, Three-Time Major Winner and Hall of Fame Member

“Even as a youngster I focused on the strike. I would go down to the beach and practice hitting the ball first and the ground second. With this book Andrew has laid out a solid framework for every golfer to improve their ball-striking.”

Ian Woosnam, Masters Champion and Victorious Ryder Cup Captain

“All golfers can improve their games with the points made in this book. It really is based around a solid impact...”

Ian Baker-Finch, British Open Champion and CBS Golf Analyst

“Understanding that the most important detail is “how the ball flies” not “how your swing looks” is essential at the collegiate level and for all golfers. Impact is the determining factor and Andrew has done a great job showing and explaining why this is true.”

Conrad Ray, Stanford University Golf Coach and NCAA National Coach of the Year

“All of golf’s great players have had different swings, but it is the solid strike that makes the difference. This is a simple concept explained well and will be helpful to golfers of all levels.”

Ian Poulter, Victorious Ryder Cup Member and Multiple European Tour Event Winner
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Introduction

I have spent my entire golf career attempting to discover the secret ingredient in the great players’
games. What do all the top golfers do that allows them to consistently hit great shots with seemingly
completely different swings? What one thing do they do right and the rest of us do wrong?

And then one sunny April day in 2008 it struck me – literally.

I was on Hilton Head Island, South Carolina, standing on the Harbourtown Golf Links driving
range watching Jim Furyk, Anthony Kim, Cliff Kresge, Boo Weekley and Aaron Baddeley prepare for
their Sunday rounds in the Verizon Heritage, studying their shots, still on my search for that secret
ingredient to success.

The shots the pros were hitting all had a similar sound, similar divots, and similar flight, yet no
two swings were the same. How could this be? If the players’ swings were so remarkably different,
how could their shots be so remarkably similar?

And then, suddenly, it dawned on me: In order for the shots to sound and look similar, they had to
have been struck in a similar manner --they had to have had similar impact positions. The question
was, if the swings were different, how could the impact positions be the same? There had to be
something in common with the top golfers’ swings. There just had to be one secret ingredient. And I
was determined to find out what it was.

I set out on a quest to study golf’s greatest players of the steel shaft era – which will be referred
to throughout this book as The List – to determine exactly what their swings had in common. What I
learned during this quest has completely changed the way I both view and teach the game of golf.

What is essential to the swing, and what is merely a matter of style? What is the secret common
swing denominator of the game’s greats? The answer to that question is the purpose of this book – to
eliminate worry and fret about style and form and expose the true fundamentals, the true elements of
the golf swing that will allow you to strike the ball as never before.

The truth is there are thousands of ways to swing the golf club, but only one way to hit the ball
correctly. That’s the common denominator. The secret to successful golf. Only it’s not a secret
anymore. I’m going to show you exactly how to do it.

Simply put: It’s all about impact.
Chapter 1 - The List

When compiling The List, I looked for players who had consistent success in golf’s greatest tournaments: the Major Championships. These events -- where talent, tradition and prestige serve to ramp up the pressure on the final nine -- require a consistent golf swing that can withstand any challenge. These champions didn’t all win with the same swing. But they all found the secret to attaining a swing that allowed them to win. I gave a slight nod to the more recent champions, with the belief that future potential will eventually equate to additional major championship victories.

*Player, Major Titles*

Jack Nicklaus, 18  
Patty Berg, 14  
Tiger Woods, 14  
Mickey Wright, 13  
Ben Hogan, 9  
Annika Sorenstam, 9  
Gary Player, 9  
Tom Watson, 8  
Arnold Palmer, 7  
Sam Snead, 7  
Nick Faldo, 6  
Lee Trevino, 6  
Byron Nelson, 5
Seve Ballesteros, 5
Peter Thomson, 5
Bobby Locke, 4
Ray Floyd, 4
Nick Price, 3
Nancy Lopez, 3
Padraig Harrington, 3
Vijay Singh, 3
Payne Stewart, 3
Ernie Els, 3
Phil Mickelson, 3
Lorena Ochoa, 2

Please note that none of the above golfers endorse, support or promote the philosophy set forth in this book. They were merely the champions I studied in order to uncover the thoughts and opinions expressed in this book.

A note on the drawings in this book: All the illustrations in this book are of championship level golfers. Every effort has been made to preserve their right to publicity by removing all identifying traits and features. The objective behind the drawings is to illustrate the similarities and not the subtle individual differences from player to player.
Chapter 2 - Range of Function: It’s Fundamental

Just about every instructional book I have read about golf has stressed the importance of what are widely accepted as the four fundamentals of the swing: grip, aim, address (posture), and ball position.

Range of Function

I don’t believe any of these elements are fundamental to a championship level golf swing. Are they important? Yes. Do they play a role in the shots you hit? Yes. I just don’t believe that a standard grip, aim, posture and ball position are integral to executing championship caliber golf shots. They are foundational, but there is not one static set-point for all golfers. I have taught too many golfers who have had a good grip, good alignment and good posture, yet experienced consistently poor results.

If you study The List players, you will discover, as I have, that there are some who aim left and some who aim right, some have the ball back and some forward; there are players with strong grips and one with a noticeably weak grip, and there are plethora of postures. The good news for those of us not on The List is: if each of these golfers can have a championship swing with completely different – and not necessarily textbook – fundamentals, then there must be some leeway in each of the four departments; an acceptable range for each fundamental within which one is capable of hitting world class golf shots.

No longer do we have to worry about having perfect fundamentals. All we have to do is fit within the acceptable Range of Function for each fundamental. If your aim tends to be a little right, that’s okay. (Well, within reason, of course. Five yards to the right is okay. Twenty-five is a bit outside the acceptable range.) What I mean is, as long as your fundamentals are functional, you will be able to create a compressed and repetitive ball flight.

Every element of the golf swing should work toward one thing: impact and ball striking. The fundamentals are purely in place to assist in achieving a sound impact/strike position.
Let’s look at the Range of Function for each of the four swing fundamentals.

Grip

The club should be held primarily in the fingers, with the hands close together. I have no preference for the overlap, interlock or ten finger grip. Success has been had with all of them. With a strong grip, both hands are rotated away from the target; a weak grip is one where both hands are rotated toward the target.

The Range of Function for the grip lies between the first and second photographs. If your grip falls in this range you are fully capable of playing the best golf of your life. The final photograph falls well outside the Range of Function in my opinion, as it encourages overly active hands in order to square the club face. Timing is a constant challenge with this grip.

Personally, I am a fan of a grip that falls toward the strong end of the spectrum. A strong grip: 1) helps the ball travel farther; 2) encourages the hands to lead the club head into impact; and 3) with the handle leading the club head, there is less tendency to flip the face through impact. It is imperative for a golfer with a strong grip to have quiet hands through the hit.

The majority of players on The List use a strong grip. Ben Hogan is the only player who preferred a weak grip; however, it is important to remember that Hogan struggled in the early part of his career with hooking the ball, and a weak grip was one of the factors he implemented to overcome that tendency.

Patty Berg -- the greatest woman golfer of all time -- had a grip that was notoriously strong, rivaling Paul Azinger, David Duval and Boo Weekley. Her grip was substantially stronger than the grip that Ben Hogan used and I would encourage all golfers to utilize a strong grip versus even a marginally weak grip. Quiet hands are ultimately more consistent than active hands; and with a strong grip the hands need to stay passive through the impact zone in order to keep the face square.
Address

When addressing the ball, the feet should appear to be a comfortable distance apart with all clubs. The body should be athletic and balanced, and the spine should remain fairly straight as it tilts the upper body down to reach the club. Posture should be well-defined, with few rounded angles. From face on, the spine should be vertical with the head situated between the feet. The back shoulder should be only slightly lower than the lead shoulder. Just low enough to allow the lower hand to reach the grip.

I prefer a slightly narrow stance to slightly wide. A narrow stance gives you a shorter distance to travel to get your weight onto the front foot at impact. Can you imagine a golfer with this set-up hitting crisp and penetrating iron shots? Not only is the ball too far forward, but the player’s feet are too far apart and the head is way too far behind the ball. As a result, the weight is on the back foot. Getting the weight onto the front foot by the time impact occurs will be a major task for this golfer.
This is a far more advantageous address position. Not perfect, but within the Range of Function. The golfer has a stance that is a little too narrow and the weight is slightly forward to start with, but he is fully capable of getting into a great impact position. These two photographs illustrate the acceptable and non-acceptable Range of Function for an impact-focused address position.

The List golfers have very different postures and address positions. Notice the difference between the two illustrations below. One golfer has a more traditional, relaxed address, while the other has a more modern, athletic starting position. In the more modern posture, the back is straighter and the angles are more defined but both addresses are capable of producing championship results.
Aim

When it comes to aim, the goal is for the feet, knees, hips, shoulders and forearms to be parallel to the target line at address. The clubface should also be square to the target.

I have found that the vast majority of right-handed golfers tend to aim slightly to the right, and vice versa for the lefties. Slightly off-aim or not, however, most of these golfers have found a way to make the ball go to the intended target most of the time. In order to get the ball to fly to the target regardless of their alignment, most golfers have learned to make small, or in some cases, major compensations to their swings.

Sam Snead aimed to the right, Lee Trevino to the left, yet they were both able to consistently get their ball to finish close to the target. The primary difference between the pros and the rest of us? They are also pros at compensating.

In order to reduce the amount of compensation needed in your swing, it is necessary to strive to align as squarely as possible. An excellent practice aid is the Alignment String, which is simply an 8-10 foot piece of woven string with a tee running through each end. Just push the target side string into
the ground and then, holding the back tee, line up the string straight at the intended target. Hit shots with the ball placed slightly inside the string.

![Image of a golfer setting up to hit a shot with a string aligned to the target]

**Ball Position**

While all the players on The List did not play the ball from the same position, I did not find any that played the ball from an excessively forward position. Some had the ball back in their stance, while most had the ball in a neutral or standard position. This is due to the importance of impact. Just like you and I, these greats simply cannot get their weight positioned in front of the ball at impact if the ball is too far forward in the stance.

As a rule, the ball is centered with the shorter clubs. As the club length gets longer, the ball position moves forward, eventually ending inside the lead heel with the driver.

![Image of a golfer with the ball in different positions for a pitching wedge, six iron, and driver]

There is Range of Function flexibility in ball position, too. I favor a ball position that is more centered versus forward. Back is okay, as is neutral, but a forward ball position makes a good impact position a real challenge.

**Tee Height**

While we’re on the topic of ball position, let’s talk a little bit about tee height with the driver.

If you (like me) have a tendency to be a bit wild with the driver – i.e.: hitting more than half of the
fairways during a round is a challenge -- then I would encourage you to use a low tee height. A low tee height will lead to a slightly more descending blow on the ball, and thus quieter hand action through impact.

On the other hand, if the last fairway you missed was back in 1978, but you still struggle to hit the ball as far as you would like, then by all means raise the tee height. A higher tee height will elevate the launch angle and increase distance, albeit, marginally.
Although no two players on The List swing the same way, the fundamentals they employ all manage to fit within the Range of Function. But then, so do the fundamentals of a lot of golfers I know, and they aren’t winning major championships. Nope. There was still something I was missing. And then -- after studying each player over and over -- I realized I needed to isolate certain elements of the swing. This helped me get a much clearer understanding of what I was seeing.

There had simply been too much to evaluate during the course of a swing. Some of The List players went up with their arms, and some went around. Some swings were long, and some were short. A few aimed right and a few aimed left. Most of the players’ grips were strong, and one was weak. With all the different arm swings and club face positions all I could see were the differences. I couldn’t see what the players had in common. And then I had an idea. Using modern day technology, I “disarmed” (the 84 degree line) the players so I could get a closer, clearer, and cleaner look at what was going on during the swing.

And that’s when I discovered the secret.

What I discovered that day is that there were two astonishingly consistent components to each of The List players’ swings: body movement and position at impact.

It was almost as though they had all gone to the same golf school and learned the same two golden rules.

Here they are:

1. When the left arm is parallel to the ground, the right forearm is always slightly above it (when viewing from an image captured at waist height). I found this to be true for every golfer listed. In some cases the right arm is against the side (Hogan, Snead) and in others it is away from the side (Nicklaus, Price), yet due to the method in which the shoulders were pivoted, the right was always above the left.
Conclusion: it is vital for the shoulders to pivot on a relatively steep plane.

In a correct pivot, the left shoulder’s first move is down and then slightly across. This is in direct contrast to what most golfers attempt to do with their shoulders, which is 1) turn them as much as they can and 2) get the left shoulder behind the ball.

Very seldom do any of the top golfers get their lead shoulder very far behind the ball when pivoting into the backswing (with an iron); an interesting observation when considering the fact that there was little to no lateral movement with the head and upper body.

A point of interest about The List: the best ball strikers tend to move off the ball very little if any (Faldo, Price, Hogan), and the golfers who relied more on heart and amazing short-game ability (Player, Ballesteros) tended to move off the ball slightly.

The fact that there is little to no lateral movement with the upper body seems to encourage the shoulders to work on that steeper plane.

Conclusion: It is important to remain over or on the ball in the backswing, as this ultimately allows you to get into your front foot at impact.
2. At impact, all of The List golfers have their weight approximately 80% on their front foot. As a result, the handle of the club is always ahead of the ball at impact. One of the biggest differences between the average golfer and major winners occurs right here.

**Conclusion:** The ball should be struck with a descending blow with all clubs*, and divots are very important.

*Although it is fashionable to teach that the driver should be struck with an upward/ascending blow, I am now of the belief that the driver should be hit when the club is traveling at the bottom of its arc. If impact happens to occur when the club is traveling one degree down or one degree up is of little consequence. When the club head is traveling flat or down coming into impact, there is far less tendency to flip or overwork the hands. With the driver, this is only attainable with a slight downward hit. According to Trackman™, the average attack angle with the driver on the PGA Tour is 1.3 degrees down.

**Summary:** If you can stay over the ball and get your body in position, you will be more likely to be well on your front foot at impact, which means you will be more likely to hit down on the ball, compressing the ball and hitting longer and straighter shots than ever before.

Now … how did they all manage to get their bodies in perfect position at impact? And what made it perfect?
The manner in which the body works through the swing is integral to achieving a proper and productive impact position. In fact, body motion is the prime fundamental for striking a golf ball correctly. By pivoting and loading the body correctly in the backswing, you set off a chain reaction that automatically directs your body to where it should be at the moment of truth: impact.

Let’s start with the prime objective: To have your body weight 80% or more forward at impact while delivering a downward blow (at least with the shots off the ground) with your head over the ball.
In researching the golfers on The List, it quickly became apparent to me that there was something eerily similar about the manner in which they all pivoted or rotated their bodies to the top of the backswing. Their arms and clubs, however, were doing quite different things. I found this distracting, and so I decided to take them out of the equation altogether. Using swing instructional technology, I drew a straight line up the outside of each player’s back side. This way, as each player approached the top of their backswing, I could focus purely on their body movement.

The result was uncanny. Not only were the majority of the back side lines I drew at exactly 84 degrees – almost every player stayed not only inside that line, but flush up against it just prior to initiating the downswing. A few players were at 83 degrees, and a few at 85, but for the most part 84 was the prime position number.

They were flush up against the 84 degree line prior to any part of the body initiating the downswing. Some of the golfers were not necessarily all the way to the top when they initiated a dynamic downswing, i.e. their hands and arms were actually still completing the backswing while their bodies (hips and legs) had already begun the downswing. Starting the lower body forward while the arms and club are still going backward creates energy or snap in the swing – just like when a whip is cracked.
Let’s look at a golfer with a very dynamic swing. In the first illustration: Notice how he is just about against the line on his right side and his swing appears to be the correct length. This is due to the fact that his arms and club have not completed the backswing, yet his body is about to start its move to impact. In the second illustration: the golfer has completed the backswing with his arms and club, yet notice how far his mid-section is off the 84 degree line. This is because he is already halfway through the downswing with his body. This golfer does not have a reverse pivot, just a very dynamic swing.

A Note on The List Players’ Swings

The vast majority of The List golfers employed the same successful swing during their peak performance years. Most golfers’ swings will change over time. And as they age, their swings can become quite different. I went out of my way to only study the swings of the List golfers while they were in the prime of their career. My research sources ranged from scouring the Web for a copy of the book Bobby Locke on Golf, printed in 1954, to hours spent surveying high speed footage of the more modern players.

There are, however, two players on The List who dramatically altered their swings during their prime competitive years: Ben Hogan and Tiger Woods. Hogan thought his swing tended to be too long, so he decided to shorten the thumb on his left hand grip. This led to a noticeably shorter backswing -- one with which he obviously had great success. As of the writing of this book, Tiger Woods is working on swing incarnation number three, and he has won majors with all of them -- something no other golf legend has ever done.

But don’t take my word for it -- a picture is worth a thousand words.

A note on the drawings in this book: All the illustrations in this book are of championship level golfers. Every effort has been made to preserve their right to publicity by removing all identifying traits and features. The objective behind the drawings is to illustrate the similarities and not the subtle individual differences from player to player.
So the 84 degree secret is part of these champions’ swings— but why? And how can you begin to incorporate this powerful information into your swing?

Why 84°?

With my new understanding that the golf swing is -- or should be – all about impact, I can see that getting the body into proper position at the top of the swing allows it to then glide down into a sound hitting position.

Set that chain reaction and the rest will happen.

The downswing happens way too fast for us to control, and thus it is imperative that from the top we are in a position that points us to impact.

In the past I taught golfers to get the weight into the back foot in the backswing. However, in studying The List, it is clear that the golfers who shift their upper body and head laterally behind the 84 degree line (Gary Player and Seve Ballesteros) tended to be less accurate than the golfers who stay flush up against it. They obviously got the job done, but I believe this is due to heart and sheer determination rather than pure ball striking ability. Particularly, with these two great players. The 84 degree line does not advocate a reverse pivot, or moving the weight to the target in the backswing; it merely encourages keeping the weight relatively centered throughout the wind up.

An interesting point: I have taught many golfers that stayed within the 84 degree line, and yet they
expressed they felt as if they had loaded into their back foot. It’s amazing to me how different we all are. Some golfers feel as if they reverse pivot, and others feel as if they are winding into their back leg, yet visually they appear to be in very similar positions. I say: get into the correct position and absorb whatever feel that position conveys to you.

I do believe the 84 degree line to be vitally important to any player’s game, because it keeps the body from straying too far from its final destination – impact.

The more the body moves away from the target in the backswing the greater the distance it must travel in the downswing to get the weight onto the front foot.

The 84 degree line also allows a player enough space to develop

**The Time Factor**

On average, the backswing should take about 0.75 seconds. It can be a bit slower or faster, but in order to function at its best, it needs to be somewhere close to that 0.75 second range. The timing ratio of the backswing to the downswing is approximately 3:1. If the backswing takes three units of time, the downswing will take one, which means you’ve not only have a short distance to travel to get your weight in front of the ball at impact, but you’ve also a very short amount of time available in which to make the move.

For example: If a golfer moves off the ball 6 inches with the upper body in the backswing (which took three units of time), they now need to recoup the lost 6 inches in the 1 unit of time left to get the body and club to impact. In this scenario, all odds point to the head being too far back at impact to make a solid strike.

Try this one: If a golfer sways their hips 4 inches off the ball and breaks the 84 degree line in the backswing with their mid section – and needs to have their hips approximately 6-8 inches ahead of where they started at impact -- he or she now only has one unit of time to get their hips a foot (12 inches) forward to be in a correct impact position. Without lightning fast hips -- and a very supple spine -- there is not a chance this golfer will get the weight forward in time, meaning they are doomed to hitting off the back foot.

**Setup**
• The shoulders should be as level as possible and the spine as vertical as possible. The more the spine tilts away from the target the more the shoulders tilt. As a result, these two factors complement each other. By keeping the shoulders more level, the spine will automatically be more vertical and vice versa. This is integral to the 84 degree secret: the more the shoulders tilt and the spine leans, the greater the tendency for a flat shoulder turn and a lateral move off the ball, neither of which will help you get your weight forward at impact.

• The feet should favor a narrow stance. (The wider the base, the greater the tendency for lateral movement from the upper body.) Flaring each foot out approximately 20 degrees will encourage a freer pivot in the lower body.

• The ball position should be between the lead ear and nose when hitting an iron shot, and be just inside the lead heel when hitting a fairway wood or driver. With irons, a centered ball position makes it easier to get your weight in front of it at impact.

• When hitting a short iron, the weight should favor the front foot at address. As the clubs get longer, this weight distribution will slowly transition to 50/50 with the driver.

**Steep Shoulder Pivot**
Body movement needs to incorporate a correct shoulder pivot in order to fit against the 84 degree line. Note the illustration of the golfer above -- just as his left arm reaches parallel to the ground: The right forearm is visible above the left forearm. This is true for every golfer on The List. The fact that one forearm is higher than the other is entirely due to the plane upon which the shoulders have pivoted. Think about it: the higher the right shoulder, the higher the right elbow, and the higher the right forearm, and so on. In fact, the lower the left shoulder, the higher the right appears. This steeper shoulder pivot is a primary contributing factor in keeping the golfer over the ball and against the 84 degree line.

The lead shoulder should feel as though it moves straight down to the lead foot. Down the elevator shaft. Note: this may sound -- and feel -- like a reverse pivot, but it is not. It is simply a way to counter the tendency to pivot the shoulders too flat and across.

The head should stay quiet as you free up the lower body. This allows the shoulders to pivot on that all important steeper plane. If the back leg straightens in order for the shoulders to work correctly, so be it. You may even feel that your hips are going to work on a steeper plane. The right hip should work up in the backswing and the left hip should work up in the downswing. Don’t get loose, but allow the legs to work freely and without restriction.

A Note on Swing Width

When the arms get too wide in the move away or backswing, the tendency is for them to pull the upper body across and off the ball. By keeping the upper part of the arms relatively close to the rib cage, any excessive extension or stretch should be limited. Try to feel your arms remaining short and soft as they are carried to the top by the motion of the body. “Alligator Arms” are a good feel here, as too much width should be avoided.

Common 84° Mistakes

At this point you may be asking yourself: “When are we going to talk about arms, club face, and swing plane?”

In studying The List, it became quite clear that there are many different ways to position the arms and club face throughout the swing. The great news is: the better the body position, the better the arms and club face position. I have often seen a frustrated student, striving for the perfect plane or look to their swing, suddenly have tremendous success simply by improving their body motion.

Here are examples of the two most common errors in pivoting the body. Interestingly, both mistakes involve lateral movement:
In this example, the golfer sways the hips away from the target in the backswing. In order to deliver the club to the ball correctly, there should be very little to no lateral motion in the backswing. In this case, the hips are going to need to drive very aggressively in the downswing, which most often leads to the upper body dropping back too far through the strike.
In this next example, the golfer moves the upper body laterally off the ball in an attempt to turn the shoulder or get behind the ball. The shoulders pivot on a flat plane, the arms lift in getting to the top, and as a result, there is very little chance this golfer will get back over the ball by the time impact occurs.

These two mistakes can be fairly easily eliminated by 1) practicing the drills described below, and 2) employing a good dose of patience and self-determination during the process.

It truly is amazing how, when the body works correctly, the arms and the club are given openings or slots to fall into. It’s even more amazing how, most often, those are the correct ‘slots’ to deliver the club onto the back of the ball.

Set up: Mirror Drill

A good habit to develop is to practice setting up in front of a mirror. This allows you to equate the way you look with the way you feel. The drill: Stand up straight with your feet the appropriate distance apart. Hold the club out in front of you with your arms extended. Bending from the hip joints, tilt your spine -- which should be fairly straight -- down until the clubhead reaches the ground. Now, evaluate the look of your setup in the mirror. If it looks and feels good to you, take a mental snapshot. Remember to take that snapshot to the course or driving range with you.

Steeper Shoulder Plane: Shoulder Pivot Drill
This drill is designed to help convey the feel of getting your body into the correct position at the top of your swing. Assume your address as if you are preparing to hit a 7 iron. (It is best executed with a ball in position.) Place an iron across the tops of your shoulders and cross your arms to support. Be sure to have the grip end off your lead shoulder and the clubhead flat against the opposite shoulder. During the pivot action of your swing, try to get the butt of the club to point at -- or slightly above -- the ball. Feel how the lead shoulder moves down as the shoulders wind into the backswing. This drill will illustrate how the lower body needs to free up in order for the shoulders to pivot on a steeper plane. Sure, this drill is slightly overdone, yet it is rare for someone who has historically pivoted their shoulders too flat to overdo this ‘feel’ in an actual swing.
• For this drill you will need a basketball/soccer ball. Assume your address position by placing the side of your back foot against a wall. Fold your arms across your chest, and position the ball between your head and the wall. Pivot your shoulders and hips, without losing the ball, paying attention to the feel you have at the top of the “backswing.” Hold for five seconds to assimilate this feel, and repeat.

84° Mirror Drill

• Now, put yourself in front of mirror and try the previous drill without a ball. Select an object in the mirror ‘behind’ your head and watch it as you perform this motion. This drill will help to limit your head motion and encourage you to fall into the 84 degree position as you approach the top. I believe it is very important to use a mirror whenever possible when practicing any element of your swing. We often know what the position we are striving for looks like, but are unfamiliar with the way it feels. By achieving the correct ‘look’ of a position, you will be able to affirm that position and take the correct feel to the course.

84° Shaft Drill

• A complementary drill to the basketball/soccer ball version: Place a shaft in the ground outside your back foot and run it up the outside of your leg at approximately 84 degrees. Be sure to hit shots off a low tee in order to maintain a consistent ball position so that you will not need to move the shaft after each shot.
Wrap Up

Each golfer is different in size, stature, strength, and flexibility. So why should we all have to ascribe to one swing methodology? The answer is: we don’t. Not anymore. The 84 Degree Secret has been uncovered, and it’s fantastic news.

All any golfer has to do to have a great swing is to get set correctly, and keep in mind that, as the swing is set in motion, the arms and the club are carried by the motion of the body. Why move off the ball when you ultimately need to finish over the ball? Simply keep your body where it started – at 84 degrees -- in order to shorten the distance you need to travel to get into a championship impact.
The List players are proof that you can swing any way you want, but if you are in the proper position from delivery to impact you will hit beautiful golf shots. In short: It’s all about impact.

I believe the vast majority of golf instructors today do not stress the importance of impact. As a result, there are a multitude of golfers wasting their time and money trying to perfect an element of their swing that has very little influence on the quality of the shots they are hitting. Learning to deliver the club to the ball correctly, however, can make a huge and immediate impact on your game.

In order to get a good strike on the ball, a chain reaction must occur – one where we prepare our bodies to be in the correct position during the swing and then merely allow impact to happen.

Here are the key elements of the all important chain reaction that leads to proper impact position.

Weight Distribution
The most important factor in a good impact position is weight distribution. Every player on The List had at least 80% of their weight on the front foot at impact. Proper weight distribution at impact enables a descending blow, ball compression, divots, backspin and a penetrating ball flight – something all the great champions can produce at will. Without having the weight forward, it is very difficult to achieve a downward strike on the ball. Ben Hogan, in his book Power Golf, refers to hitting down on the ball 22 times.

The Handle Always Leads the Club Head

This is achieved by having the weight correctly positioned on the front foot, and using a grip that fits within the Range of Function. (A poor or weak grip will tend to cause casting, or an early release in an attempt to square the club face.) A fairly strong grip is beneficial in helping to get the handle to lead the club head into the ball, which is vital in creating a descending blow on the ball. By pushing the handle ahead of the club head, you greatly reduce the risk of excessive and unnecessary hand action, thus improving the strike and the shot direction.
Body Curve at Impact

Remember the old adage: Stay behind the ball? Well, how do you get your weight on your lead foot (in front of the ball), yet manage to stay behind the ball? Body curve. At impact, the lead eye should be over the ball (with an iron), but the weight needs to be greatly favoring the front foot. The head stays over the ball while the weight is driven onto the front foot. This is achieved by driving the hips to the target to get the weight forward, then allowing the hips to rotate to the target after the weight has been transferred forward. (To the uninitiated this may well feel like a slide.) A shape is created in the body that is similar to a mild reverse C. An interesting point to note here: When the body assumes the correct shape at impact, the back leg seems to straighten. It very often appears as if the golfer is ‘pointing’ at the ground with the big toe on their back leg.

Mental Approach

I have had many students greatly improve their ball striking and impact positions simply by understanding or “seeing” in their minds what their bodies need to do. Knowing that the club should travel down to the ball and ‘squeeze it into the ground’ can only be of help in the long term. If you “see” and then set your mind to get your weight on the front foot at impact, to lead the club handle into impact, and to drive your hips to the target to create the appropriate body curve at impact, you will find that you will fairly quickly achieve just that. Having a clear picture in your mind of what you need to do with your body will greatly increase your chances of getting there.
A Note on Hip Rotation at Impact

I have noticed that the amount of hip rotation at impact varies from player to player on The List. The fact that their rotation positions vary says to me that it is not integral to have the hips extremely rotated, or facing toward the target at impact. Hogan and Snead are almost facing the target with their hips, while Price is fairly square. The differences in their hip positions at impact can easily be traced to their respective arm positions at the top of the swing, and the amount of hip flexibility they possess. There are two primary factors that influence the amount of hip rotation at impact when viewed from down the line:

Hip Flexibility

The most important physical attribute for any golfer is flexibility, and nowhere is this more important than the hip joints. When the hip joints are tight, the hips are restricted and become less mobile. For the average golfer, this restriction is the primary reason your hips will appear to be square rather than seemingly “facing” the target at impact when viewed from down the target line.

Arm Position at the Top

For top level golfers, this is the factor that most influences the degree of hip rotation at impact. As seen in the example illustrations of the two golfers below, a flat, low arm position at the top results in a rotated look at impact, whereas a more vertical position at the top leads to a squarer look in the hips. If the arms are high or tall at the top, then excessive hip rotation would merely force the club out and ‘over the top’ and the hips are held accordingly quiet until impact. On the other hand, if the arms are flat at the top, as in the case of the golfer on the left, then hip rotation is a necessity to get the arms and the club back in front of the body.

Champion Golfers at Impact

In the following impact illustrations, take note of the similarities of the golfers at impact. They clearly all have very different swings, but at the moment of impact, when the message is delivered to the back of the ball, they all fall into decidedly similar positions. My intent here is to not isolate what one particular golfer does, but to illustrate how similar all of the following golfers are at the moment of truth - impact.
Impact Errors

There are essentially only three ways to go wrong at impact, and more than likely, if you aren’t happy with your swing, you are making one of these three common errors. The good news is, after reading this chapter, you will have a clear image of what your problem is and how to correct it.

Head and Weight Back

This is the most common error when it comes to impact, and the biggest reason why the majority
of golfers tend to slice the ball. In this type of impact error, the weight is predominantly behind the ball, which causes the body to spin or over rotate and the club to come over the top. For a right hander, the ball launches left, and either stays there or curves too far to the right, trajectory is too high, divots tend to be infrequent (with the majority of them occurring prior to impact), and the best shots are picked off the surface of the turf. Hang back through impact and you are destined to hit poorly struck pulls and weak fades.

Head and Weight Forward

This is an error most commonly seen in the average to better golfer. The golfer gets their weight onto the front foot, but fails to maintain their head position, sliding it too far forward and in front of the ball. This golfer has the ability to compress the ball and take divots, but direction tends to be a primary challenge. In this type of impact error, the weight and head are too far forward, the club tends to get over the top as the upper body, and the shoulders over rotate as they get forward of the ball. As a result, trajectory is acceptable, the ball is generally well struck, but shots tend to launch left and pull, or launch right with a slight fade as the golfer tries to compensate for the overriding ‘pull’ sense. Get the upper body too far forward at impact and you’ll appreciate the hit on the ball, but your direction will leave a lot to be desired.
Head Too Far Back and Weight Forward

This is the most common impact error for top tier golfers. These players have invariably figured out how to create power and strike the ball correctly. They are capable of drawing the ball, but in this instance, they’ve got too much of a good thing. In this type of impact error, the weight gets to the front foot, but depending on how far the head hangs back, getting the weight far enough onto the front foot can be a challenge. As a result, there is way too much body curve, the club tends to get too far inside the ball and works in-to-out, the ball launches to the right and either stays straight, resulting in a push, or launches at the target and quickly hooks to the left, and divots are inconsistent (the strikes tend to alternate between thin and heavy hits due to the club working up too much through the hit). Gary Player and Seve Ballesteros struggled with this impact error at various times throughout their careers. Too much body curve and you will tend to hit hooks and blocks and pick the ball way too neatly off the ground.
Impact Drills

In order to improve your ball striking ability, it is imperative that you learn how to get into a good impact position. The following impact drills can help you get there. Note: For all drills, use a seven or eight iron when a club is required.

The Down Slope Drill

Simple enough. Be careful not to let your upper body sneak down the hill as well. Make sure your head remains over the ball. At address, make sure you maintain a standard ball position.

The Impact Bag Drill

Another fairly straightforward exercise, but the real benefit lies in the details. When the club impacts the bag be sure to get the shaft to contact the upper part of the bag before the clubhead gets there. This will ensure that the handle leads the clubhead. Beware of using the impact bag incorrectly. It’s easy to do. Make sure the shaft gets to the bag before the clubhead as illustrated in the picture at left. Important: Save your joints, club and impact bag by not whaling away at the bag too hard. You just want a feel to carry over to the real deal.
The Hip Press Drill

This drill will give you a good sense of body position at impact and also provide you with an amazing stretch. If you slice or fade the ball, this drill is for you. Set up to a ball without a club, hands on your hips. While maintaining your head position over the ball, drive your hips as far toward the target as your body will allow. Your back heel should come off the ground slightly as you feel the back leg straighten. It will feel like you are pointing at the ground with the big toe on your back foot. Hold for five seconds and release. Then try it with a club in your hands.

The Towel Line Drill

This drill works wonders for compressing the ball and taking those ideal ‘bacon strip’ divots. It ensures that the golfer shifts the weight onto the front foot at impact. Practice as pictured, with the towel folded a few times to make sure it provides a slight amount of elevation. All the ensuing divots should occur forward of the line of golf balls.

The Pump Impact Drill

This drill helps convey a sense of a proper impact position while in motion. Address the ball as you normally would, then shift over into an impact position without moving the club head from the back of the ball. Once there, wind back from impact to a half backswing position and pump the club
and body back to the same impact position twice before releasing through and hitting the ball. Stay patient with this drill. Once you get a sense of rhythm for the motion you will be able to feel a sound impact position. Do not hit the ball more than 80 yards.

The Driver Off The Deck

This drill is specifically designed for golfers who tend to hook or push/block the driver. In this situation, the club tends to get too far inside the ball and the ball is hit with an in-to-out and upward blow. By hitting tee shots off the ground or even from a very low tee, the club can no longer get too far inside the ball or the ground will get in the way, resulting in drop kicks or topped shots. Try to hit solid shots with a slight fade in this exercise. You should actually feel like you are hitting down on the ball a little.

Divots

I believe that divots -- at least with shots hit off the ground -- are integral to great ball striking. It’s been my experience that most golfers are not aware of the importance of divots, or what a good divot should look like.
Here is a detailed description of what makes up a proper divot.

**Direction**
- For a right hander, the divot should optimally point just left of target. The divot occurs after impact, and this is when the club starts to track back to the inside, thus causing the divot to point slightly left.

**Depth**
- The optimal depth of a divot should be shallow. I often refer to it as “removing the green from the grass.” Moe Norman, the famous Canadian golfer, referred to his divots as “bacon strips.”
- There should be very little digging into the dirt, unless you are hitting multiple shots from one position.
- The inside and outside edges should ideally be of similar depth.
- The depth of a divot is highly dependent on turf conditions.

**Shape**
- A great divot should be rectangular – similar to the shape of a dollar bill.
- If your divots are in the shape of a trapezoid (which is very common) your hands are invariably too high at impact, thus getting the toe into the ground too long. There is also a possibility that your equipment does not fit you (See Chapter 10).

**Where**
- A divot should occur slightly forward of where the ball is resting on the ground.
- The deepest point of the divot should be 3 inches forward of where the ball contacts the ground. This is the low point of the arc of the swing.
Length

- The optimal length for a divot is 6 inches. This is once again, highly dependent on turf conditions. With the low point of the arc being ideally 3 inches forward of the ball, this would reason that a sound divot should be twice that length.

- Short divots indicate an attack angle that is too steep.

- Long divots indicate an attack angle that is too shallow with excessive upper body lateral motion.

Be Tidy When You Practice

When practicing with the alignment string, start at the target end of the string and work up the line away from the target with each successive shot. This will leave a tidy and narrow strip of divots on the practice range that will grow in and heal quickly. Feel free to take multiple strips in each practice session, just leave an equal sized strip of grass between each divot line to speed up re-growth.

Hopefully, you now have a clear understanding how impact errors might be negatively impacting your game and how to go about improving this single most important position in golf.
Myth 1: “My swing is too fast; I must slow down.”

So often a student walks in for a lesson and tells me they are desperately trying to slow their swing down because it feels way too fast. Amazingly, for every ten golfers I see with tempo or speed problems, nine of the swings are too slow and only one is fast. Here is an explanation of what I see:

• The time a proper golf swing should take from start to impact is divided into four units – three units for the backswing and one unit for the downswing. When the ratio becomes 4:1 or 5:1 then the swing starts to feel jerky and ‘quick’. It feels fast because it is essentially too slow.

• I have taught golfers who have backswings that have approached 2 seconds – with the downswing taking a mere 0.25 seconds. That’s an 8:1 ratio. It is not easy to maintain your timing, not to mention your composure under pressure, when your swing takes almost two seconds for the club to get to the top.

• A Tour player’s backswing takes anywhere from 0.60 to 0.80 seconds. That means most of them will strike the ball less than a second after the swing was initiated. Much, much faster than the average golfer.

• Backswing time is influenced by two factors: the speed of the clubhead and the distance it travels. If you swing the clubhead too far back (long) it will slow down your swing and cause the downswing to feel quick. Sam Snead’s driver backswing took 0.80 seconds. However, although his backswing was exceedingly long, he made up for the length with speed, allowing his swing to remain close to the 3:1 timing ratio.

• Do not sacrifice rhythm as you attempt to correct your swing ratio. It will take a little getting used to, but persevere and it will soon start to feel smooth. Brisk – but smooth.

Impact Tip: Remember: it’s not about moving the body faster, but getting the club head traveling
faster – particularly in the backswing. Rhythm does not have to be slow.

**Myth 2: “I must watch the ball through impact.”**

In all my years of playing, I can safely say that I have never seen my club hit the ball in a full swing, and I have yet to meet a golfer who can confidently say they have, either. So many golfers are fixated on staying down and keeping their eyes on the ball that it locks them up through impact. Here is what I see:

- Almost all the top golfers look toward the ball in the backswing and just through impact, but I do not know any who claim to actually see the club strike the ball. Shortly after impact, the head naturally rotates with the chest to follow the flight of the ball. In fact, Annika Sorenstam’s head starts to rotate into the follow through before her clubhead ever reaches the ball.

- I would encourage all players to try hitting a few shots without looking at the ball at all. Imagine you are looking toward the target prior to striking the ball and you will quickly “see” that there is no need to restrict the swing by forcing your head and eyes down through impact.

- When the head stays down too long after impact it slows the rotation of the chest and increases the rotation in the hands, thus increasing the chances of a flipped or hooked shot. Not to mention neck pain.

**Impact Tip:** Keep your spine down through impact and let your head rotate into the follow through with your chest and arms. Watch the ball as it takes off – you might like what you see.

**Myth 3: “My lower body must be quiet.”**

- I have been guilty of encouraging golfers to resist the turn or pivot of the lower body, primarily by keeping the flex/bend in the right knee because I read and listened to many of the same golf gurus you did. Ben Hogan has written extensively about this, but I don’t believe he ever had what I would classify as “a quiet lower body.” There is no golfer on The List whose lower body could be classified as being overly quiet. If this were the case, there would be no need for footwork or golf spikes. All of The List golfers have active to very active lower bodies.
• The motion of the lower body is integral to the pivot. Without proper lower body motion the shoulders cannot pivot on the correct plane.

• The back leg should always lose most, if not all of its flex in the backswing as the hips rotate and tilt in similar fashion to the shoulders. The back hip goes up and the lead hip goes down slightly. Look at the following illustrations of these two major champions at the top of the backswing. Certainly not quiet lower bodies.

![Illustrations of golfers in backswing](image)

• As you start to allow your back leg to ‘lengthen’ in the backswing, you will notice that you are far less likely to sway or slide laterally. The hips and legs can pivot in the backswing, but they should never slide or sway.

   **Impact Tip:** Free up your lower body by releasing the flex in your back knee. Allow the hips, knees and ankles to move freely as you pivot into the backswing. Feel some footwork in your wind up. It should be a full body wind up – not just the upper body.

**Myth 4: “Tee it high and let it fly.”**

With the advent of 460cc drivers and 350 yard drives, everybody wants to tee the ball high and give it a rip. Everyone, that is, but the best players in the world. Sure, the pros want to see the ball fly, but not at the expense of accuracy. When you play on long courses with narrow fairways and heavy rough – and you’re playing for big checks -- accuracy becomes paramount.

• The average amateur golfer tees the ball almost an inch higher than the average tour player. Tee the ball lower, find your ball more often, and shoot some lower scores.

• Instead of using the long tees that are so abundant now, substitute them with the older short tees. This will remove the temptation to let it rip. When the ball is too high off the ground, it encourages excessive hand action through impact, leading to more offline shots and decreased accuracy and timing. No golfer makes birdies with their driver, but many of us have made ‘other’ scores with the club.

• If you are a straight hitter, and could do with a little more distance in lieu of some accuracy, go ahead and tee the ball fairly high. A higher tee height will assist with more distance, but reduce ball
Impact Tip: Tee the ball so that the top of the ball is level with the top edge of the driver when the clubhead rests on the ground. The little you sacrifice in distance, you will more than make up for in accuracy and control.

Myth 5: “The driver should be struck on the upswing.”

It has been fashionable to preach that irons should be struck with a downward blow; that utility clubs and fairway woods should sweep the ball off the turf, and the driver should be traveling up at the moment of impact. I believe golfers would be better off if they struck all shots, other than putts, with a descending blow.

- Even though the driver is teed up, there should be no ground contact with the sole of the club through impact. If the ball is teed too high and you are attempting to hit down on it, there is a very real possibility the result will be a skied tee shot. And we all know what that does to the top of a driver.

- The PGA Tour average for attack angle into the ball with a driver is 1.3 degrees down.*

- The downward motion needs to be very subtle. As long as you reach impact somewhere close to the bottom of the arc, you will be fine. One degree up or one degree down here is inconsequential.

- An excellent drill to get you to feel the correct angle of attack into the ball is to hit drivers off the ground.

Impact Tip: Practice hitting the ball off the ground. Topped shots or ‘drop kicks’ will indicate that you are swinging up on the ball too much. Stay patient with this drill and keep at it until you feel somewhat comfortable about a decent strike. There are many excellent golfers who utilize this exercise.

* Trackman™ News #4 January 2009
The most important aspect around the greens is a quality strike or hit on the ball. The most challenging element of the short game is not direction, but distance control, and distance control is directly related to a correct ball strike. It’s amazing how well a golfer can control the distance of their chips and pitches if they are striking the ball correctly. Again, it’s all about impact.

The keys to good chipping and pitching -- and thus distance control -- are: understanding and using the bounce, set-up, and trajectory control.

Understanding Bounce and How to Use It

Club bounce is the angle between the ground and the sole of the club when the shaft is held in a vertical position. For example: A club with ten degrees bounce will have a ten degree angle between the sole and the ground (barring any rounding of the sole).

Notice how the back edge of the sole of the wedge rests on the line, while the leading edge is slightly raised. Thanks to Gene Sarazen, who first invented bounce, irons have been built this way to deter the leading edge from shoveling or digging into the ground.

The greater the bounce angle of a club, the higher the leading edge will be from the turf at address and vice versa. It is important to note that all modern irons have bounce built into them; it is not something that is strictly reserved for the wedges.
There are two things that must be struck with every chip or pitch: the ball and the ground. And preferably in that order. This is where understanding and using club bounce comes in. Most golfers know that a chip or pitch must be struck with a descending blow. The dilemma that most golfers face is how to hit down without getting the sharp leading edge of the club stuck in the ground. For the majority of short game shots, the handle should beat the club head to the ball, similar to the full swing, but to a far lesser degree. If the handle gets too far forward, the bounce is removed and the club will dig too much. I find that golfers struggling with their short game are often alternating between sticking the club in the ground and blading shots over the green. This is where using the bounce correctly becomes vital: Think of it as an insurance policy that, when used correctly, allows for an acceptable result even with the ground being struck before the ball.

**Bounce Drill**

Locate a lie board (a flat, sturdy plexiglass board) and pitch a few shots from the board. You will notice that the back edge of the sole of your wedge is marked up from where it made contact with the plexiglass. Should the markings be too close to the leading edge, your hands are too far forward at impact and you are preparing to do some gardening.

If you do not have access to a lie board, (try plywood with paint on it) you can just make a few small practice swings during which you attempt to brush the ground with the back edge of the bottom of the club. There should be no divots – no matter what the turf conditions.
Bounce Recap

- The leading edge digs into the ground; the bounce glides along the ground. Use the bounce.
- If your club has ten degrees of bounce and the shaft leans forward more than ten degrees at impact, you effectively have zero -- or even a negative -- bounce.
- There should be no divot when you hit a chip shot. If the leading edge is cutting turf, you are not employing the bounce correctly. Divots with pitching will depend on turf conditions, but there should not be any digging there either.
- Lagging the clubhead into impact will lead to a loss of bounce and inconsistent results. Feel as if the hands and clubhead arrive at the ball at the same time.
- The ground must be contacted for there to be an acceptable result. Preferably after impact.
Short Game Set-Up

In setting up to a chip or a pitch, the address position should be very similar. The difference between chipping and pitching is simply wrist action; there is very little difference in the set-up. Chipping requires very little to no wrist action, while pitching requires some wrist and perhaps a slightly wider stance (due to the increased length or higher trajectory of the shot).

The set-up for both shots, however, remains very much the same. Notice how many of these set-up key points allow the bounce of the club to work correctly.

• The feet should be approximately one clubhead width apart. The stance needs to be this narrow in order to keep the weight on the front foot.

• The ball should be positioned in the center of the feet. This is to deter the leading edge from catching in the turf. Too far back and you give up all your bounce.
• Your weight should be positioned so that it favors the front foot 60% versus 40%. Just as in the full swing, it is important to position the body and weight properly. Make sure this positioning is subtle, as shifting the weight too far forward will increase the chance of the club “digging” at impact.

• As a result of the weight being forward, the hands shift forward only slightly. There should be no conscious effort to push the hands forward.

• Grip the club where you would for a regular full swing; there is no need to grip down unless you are using an 8-iron or longer club.

• Cozy up to the ball. Good chippers and pitchers set up fairly close to the ball and so should you.

• If the target is at 12 o’clock the body should be aligned toward 11 o’clock. (For right handers.)

• Make sure the club face is square to slightly open rather than closed. As the face closes, the amount of bounce built into the club head is reduced.
If all golfers were open to the idea of chipping with multiple clubs, they would perform at much higher levels -- and who doesn’t want that? I am of the opinion that it is better to learn one basic chipping technique and simply select the correct club for each unique trajectory situation. If you currently use only one or two clubs around the greens, I would encourage you to expand your short game arsenal by getting familiar with a few additional options. They will give you the ability to easily control the trajectory and release of each shot.

Once you have decided where to land the ball, it is trajectory that ultimately determines the distance the shot will travel. The key is to land the ball on the green as soon as possible and have it release to the hole as if it were a putt. Keep in mind that you will encounter certain situations where it is not feasible to land the ball on the green and have it finish close to the cup. Keep an open mind and be creative. Select the shot that gives you the highest percentage of getting the ball close.

Here are two different setup possibilities for a chip shot. The first is for a higher shot with a lofted club, and the second is for a lower running shot.

- For the higher shot, select your most lofted club and open the face. Notice how the ball position is slightly forward and the weight is more centered versus forward. As a result, the handle is actually slightly behind the ball and should remain in that position through the hit. You want to feel as if the club head gets to the ball prior to the handle, thus adding loft to the face and trajectory of the shot.

- When opting for a low shot, always select a lower lofted iron (7 or 8 iron) as it has the loft you are looking for with the bounce already built into the sole of the club. When a lofted club is selected to play a low shot, the face becomes de-lofted and the bounce is decreased. The leading edge is exposed to the ground and the chances of sticking the club in the ground or blading the shot are greatly increased.
Trajectory Drill

• Place a small towel a few paces onto the green. Do not select a target for this shot; strictly focus on landing the ball on the towel. The objective is to hit the towel on the fly.

• Start with a 7 iron, and work your way up through the more lofted clubs. Hit 5 shots with each club. Try to land the ball on the towel with each attempt.

• As you progress to the shorter clubs, you should start to gain a heightened sense for how far the ball will run out with the various clubs.

• This drill will educate you on club selection and help you become more comfortable with various clubs.

A Note on Pitching

Personally, I think too many accomplished golfers pitch the ball with their most lofted club far too often. They tend to use the lob or sand wedge for all shots between 10 and 100 yards from the green. Not only is this inefficient, but with the amount of height and spin imparted on the ball, it’s difficult to control. How often have you seen a Tour level golfer hit a short wedge shot to a green only for the ball to spin away from the target? Shots from this range are far easier when you learn how to hit them with a lesser lofted club. Ever heard of a “pitching” wedge? I would even settle for a gap wedge. Anything but the dreaded full swing L-wedge. Use it for any pin position on the green other than in the front, or just over a bunker or hazard. This will allow you to swing more softly; keep a flatter trajectory; maintain spin on the ball; and ultimately be more consistent. It just takes a little getting used to.
The greenside sand shot is unique to the game of golf in that it’s the only shot where one does not -- or at least should not -- hit the ball.

For the greenside bunker shot, the ground must be contacted prior to the ball, and the lowest point of the swing arc should be under the ball. I know some players who have hit their longest shots from a greenside bunker.
• At address, the feet should be wider than standard and the ball positioned forward of center. As with the full swing, a wide stance inhibits excessive weight shift, and that is exactly what is called for in this shot. The weight can favor the front foot slightly, but an even spread is ideal. The clubface should be very open. You should feel as though you could balance a glass of water on the club face at address.

• Set up to hit the sand before the ball. Hover the club over the impact spot. Here’s a good practice drill: Draw two lines in the sand forming a ‘channel’. Making practice swings, see how many times you can impact the sand right between the lines. This drill will let you know where your club tends to bottom out. For more consistent ground contact, avoid holding the clubhead over the ball at address.
• Keep in mind that you are not going to make contact with the ball. Thus, you need a full backswing. Stay aggressive with the backswing and control the length of your shots with the speed through impact. A good way to control the speed through the hit is to fit the length of the follow through to the length of the shot. Short follow through for a short shot, etc.

• With a regular golf shot, one should be attempting to strike the ball first and the ground second -- an impact where the low point of the arc is a few inches forward of the ball. This can only be done with a slightly descending blow and the weight on the front foot. Due to the fact that we want to impact the sand prior to the club reaching the ball, there should be no forward weight shift in the downswing. Try to play sand shots with the back foot remaining fully planted and quiet throughout the swing. The weight should remain where it was set at address. This will reduce those “low heaters” out of greenside bunkers.

Two Shots for Sand Success

In order to be a great bunker player, you need more than one basic shot in your arsenal. The bunker shot you need when you’re twenty feet from the hole and need to get up and down (high, soft, spinning) is completely different than the bunker shot called for when you are sixty feet from the target.
and need to reach the hole. (lower, releasing).

The High Spinner

This high velocity, high trajectory, high spin shot is most often played with the most lofted club in the bag. In this situation, the ball needs to come to a screeching halt very soon after landing, due to the fact that you have very little green to play with.

Play the shot this way:

• Using your most lofted club, open the face as much as possible. Picture balancing that glass of water on your club face.
• Take a fairly wide and low sitting stance with the ball positioned a little forward of center.
• The velocity and speed in the swing are what gets the ball high and spinning, so even though this may be a short shot, it still requires an aggressive approach. Hit it hard. The loft on the club will keep the ball from traveling too far.
• Going through impact, try to feel the hands scoop under the ball. The club head releases under, and the club face stays open through the hit. This allows you to hit hard, yet -- when the club is released properly -- the ball will go up versus out. Note how the back of the left wrist is cupped, and the right wrist works under the left wrist rather than over.
• Practice this shot from a good lie off a slight up-slope in the sand. Hit the shot as hard as you can, trying to make the ball travel high and short.

The Low Releaser

This low velocity, low trajectory, low spin shot should most often be played with the second most lofted club in the bag. If you have a LW, it would be the SW. If you only have a SW, you should use
the PW. In this situation, the shot needs to traverse a large portion of either flat or downhill green. Use this shot when there is ample opportunity for the ball to roll like a putt.

**Play the shot this way:**

- Using a lesser lofted club, the stance should be of average width and the ball position is still slightly forward of center.

- The clubface remains open, yet to a lesser degree than the high spinner.

- There should be very little speed in the swing — almost as though the shot is being played in slow motion. I often call this the ‘dump and run’ shot, as it should just get out the bunker, land early on the green, and roll to the hole as if it were a putt. Speed creates spin and there should be as little spin as possible on this shot.

- The hands should be light throughout the swing, and it is okay to actually roll the face a little through impact. This will lower the shot, and cause the ball to release more.

- Do not attempt this shot when your ball is lying on an upslope. An upslope requires a more aggressive swing, and that takes away the ability to keep the ball low.

- Practice is vital for this shot; it tends to take a few tries before sensing the correct speed of the swing.

  Practice always helps, but never more than when it comes to sand play.

**Hard-Packed or Wet Sand**

In this challenging situation, it is important to get the clubhead into the sand aggressively, knowing the firm conditions can reject the club and cause the leading edge to bounce into the ball. In order to adjust the downward force exerted with this shot, the stance should be narrower, with the ball positioned behind center. The weight needs to favor the front foot and, as a result of the ball position, the hands and head are in front of the ball. Do not push the hands forward; they will automatically be forward of the ball.

In the backswing, the club needs to be set quickly with no weight shift. Try to picture a steep sided V when preparing to play this shot. It is this sharper, descending blow that will get the sole of
the club to break into the hard-packed sand and get the club under rather than into the ball.

Hit down aggressively 2-3 inches behind the ball and limit your follow through. The ball should come out of the sand with a lower than normal trajectory and only check after the second bounce.

Knowing how to read the texture of the sand is one of the keys to playing this shot well. If you are unsure about which shot to play -- the standard explosion shot or this version -- I would opt for this one, as it provides protection against the sand being firmer than you anticipated.

Fairway Bunkers

Fairway bunker shots are different than those played in close proximity to the green. They are actually played in the same fashion as the rest of the shots in the game: ball first, ground second.

Play fairway bunker shots in the same manner in which you would play a shot from the fairway. Two checkpoints to determine: First, do you have a lie that allows for the clubface to get cleanly onto the back of the ball? Second, do you have enough loft on the clubface to get up and over the lip in front of you? If the answer to each of these questions is yes, go ahead and swing away as you normally would. If not, the shot must be played in the same fashion that you would play the above mentioned greenside bunker shot: with a lofted club and impacting the sand before the ball. Do not be greedy when you have either a poor lie or a high lip in a fairway bunker. Take your punishment and move on.
There are many ways to putt the ball into the hole -- and even more ways to miss the hole. As with the full swing, however, there are a few important common denominators that all great putters share: a solid strike, an equal length back and through stroke, and a correct path.

A Solid Strike

I have always believed there should be a measure of “hit” in every putting stroke. In studying the top putters, it is uncanny how they seem to pop the ball off the center of the putter face; it’s almost as though they manage to compress the ball. True, there is no divot involved, but there is definitely a louder and crisper impact sound when an expert putts the ball. Throughout the stroke, the putter seems to load in the backswing, lag in the transition, pop through the hit, and release into the follow through -- a similar motion to the one required to crack a whip, yet on a much smaller scale.

The “Pop” Drill

This is an excellent drill to help you acquire the feel of a solid strike: Gather a dozen balls in the center of a green and quickly and casually “hit” them back to a point off the side of the green -- just like when you are clearing a putting green by hitting all the balls off the green with your putter. Do not emphasize a target; don’t take time to set up; just pop the balls off the face of the putter. When done correctly, you should be able to feel how efficient the stroke is. There should be a minimal amount of follow through, the strike should feel crisp, and the sound should be louder than what you are accustomed to. When I see a golfer struggling with the putter, they are almost always overemphasizing the “stroke” element and have lost the concept that there needs to be some “hit” at impact. The problem most often is that their motion is long, slow and overly mechanical. Pop the ball into the hole.
The Gate Drill

Another excellent exercise to assist with creating solid putting strikes is the gate drill. Set up two tees in the ground as pictured. This is your “gate.”

As you stroke putts from the gate, try to feel as if the putter is going to release all the energy built up in the backswing into the ball as it passes through the gate. In other words, the gate is where the whip should be cracked. Feel the pop. This should not be approached in a technical fashion, but with feel and finesse. After all, putting is an art. The gate drill encourages the putter to strike the ball in the middle of the clubface (from toe to heel).

The following teaching aid also helps with centering the strike, but this time from the top of the face to the bottom of the face:
The Perfect Pendulum

This is a simple and portable teaching aid that conveys the correct sense and feel of a solid putting stroke. Like the gate drill, this exercise encourages the putter to strike the ball in the middle of the face, thus eliminating “topped” or scuffed putts.

I love teaching aids that convey the message in a simple and straightforward manner, and this one does an excellent job. If you are struggling with your putting, I would highly recommend picking one up.

www.perfectpendulum.com

Go to the website and enter the code IMPACT for a 20% discount.

The Length of Stroke

When a golfer grasps the “hit” concept in putting, the putterhead should swing behind the hands a distance equal to or greater than the amount it swings in front of the hands. The backswing should be the same size or slightly bigger than the follow through.

Golfers tend to be of the belief that when the backstroke is bigger than the follow through, the putter must be decelerating. Not so. Try the Pop Drill again and, if done correctly, the follow through should be smaller than the backstroke and the balls should be whizzing off the green. There is no deceleration there.

The length of the stroke should be determined by the length of the putt, the speed of the greens, the angle of the slope, and how aggressively you want the ball to enter the hole.

Speed is paramount in putting, and with a solid strike and matching stroke, your speed will be
The Speed Drill

Take three balls and set them up as pictured, four feet from the hole. Try to find a putt with a fair amount of break in it. Putt the first ball as firmly as possible into the back of the cup. For this putt there should be very little break due to the speed at which the ball gets to the cup. On the second putt, stroke the ball at your customary speed. For the final putt, try to get the ball to just creep over the front edge, using as much break as possible. Try to make all three putts by rolling them at completely different speeds. This will help with stroke size and pop at impact and thus improve your speed control.

Stroke Path

It has become fashionable to focus on the arc the putter travels during the stroke. While I believe too much has been made out of it, it certainly is valid that the putterhead ideally travels to the inside in the backstroke and back to the inside on the follow through.

Okay -- now let’s forget we ever heard that information. Too many golfers have decreased their putting ability by trying to manipulate the head to the inside on each side of the ball.

My theory is: if a golfer perceives the stroke as being straight back and straight through, then, as the stroke gets longer, he or she will automatically and naturally arc the putter to the inside due to the
fact that we all stand inside the ball when we putt. Keeping this in mind can greatly improve your
direction, particularly on those all-important short putts.

The Putting Plane

Another excellent teaching aid that helps to create the perception of straight back and through
while allowing the putter head to arc slightly inside on each side of the ball is: the Putting Plane from
Eye Line Golf.

Due to the angled plane on the inside of the device, the putter is allowed to move inside the target
line as it raises off the ground, yet when viewed from above it creates the impression of a straight
back and through stroke.

www.eyelinegolf.com

Go to the website and use the code IMPACTBOOK for $5 off your purchase price.

Summary

Putting is an art. It can only be done well by feel. There is no magic formula no matter what any
guru says. There are so many different ways to putt. There are long putters, short putters, belly putters;
there’s the cross handed grip; the claw grip; the paint brush grip -- even one-handed, which, believe it
or not, has actually been done with success on the PGA Tour. Any one of these methods can be
successful. The problem I see too often is a golfer attempting to putt according to a formula that has
nothing to do with “feel.” You just cannot apply a formula to feeling. Practice to improve your strike
on the ball, and the length and path of your stroke, and soon you will “feel” how much fun it is to
rattle the ball into the cup from everywhere.
The sole purpose of practice is to produce lower scores. The impact that proper and purposeful practice can have on your game is immeasurable. Here are a few simple rules to keep in mind as you head out to your next practice session:

• Maintain a balance between practice and play. Practice informs play, and play informs practice. There will be times -- when you are working on new information or preparing for an event – when one will outweigh the other, but do your best to keep a balance between the two.
On the practice range, you should have two areas of focus: the mechanics and technique (swing mode), and result oriented shots (shot mode). Every range session should incorporate a portion of time spent in each mode.

When it comes to practice, quality is better than quantity. As with so many things in golf, less is more. It’s not how often you practice, but how well. Get the most out of your time spent working on your game by practicing correctly. The alignment string is a great quality practice aid. Use it for all your full swings made in swing mode. You can even use the string to assist to determine ball position, and as a visual guide when chipping. When it comes to shot mode, the string will not help as you should be visualizing and executing certain shots encountered on the course.

Shot Shaping

There are many different ways to control the shape of a golf shot, but none are quite as reliable as the method outlined below. Most golfers spend hours, days, months, even years trying to make their swing as consistent as possible. So why, after you’ve invested all that time ‘grooving’ your swing, would you employ a completely different swing when you need to shape a shot?

Do you remember the old saying: Two wrongs don’t make a right? Well, for shot shaping, three rights make a left. And three lefts make a right. Whether you are a lefty or righty, this formula works either way.

To curve the ball to the right:

• Aim your body and clubface to the left; the direction you would like the ball to start.
• Move the ball position to the left in your stance. (As you view the ball.)
• Rotate both hands to your left on the grip of the club. This should be done in a subtle fashion.

Once you are set and ready to fire, make the same swing that you are accustomed to making and, with the subtle “left” adjustments, the ball should launch in the intended direction and curve to the right.

To curve the ball to the left:

• Aim your body and the clubface to the right of your target.
• Shift the ball to the right in your stance.
• Rotate both hands slightly to the right on the grip.

With a little practice, you will start to get a feel for how much the ball position or grip needs to be altered in order to produce the desired amount of curvature.

Try this practice drill: place a shaft in the ground 10 paces in front of your ball -- between the ball and the target. Practice shaping the ball both ways around the shaft.

To keep the trajectory down:
• Keep the stance narrow and the ball position behind center.
• The weight needs to be on the front foot with the handle in front of the ball.
• Grip down on the club.
• Make a wrist less type swing with a low backswing and follow through.

To elevate the trajectory:
• Move the ball position forward in the stance slightly and keep the weight evenly distributed. (Watch for moving the ball too far forward here)
• Make a full swing with a high finish. Try to sense the weight hanging back slightly through impact.

Regardless of whether you are an excellent golfer or a beginner, shot shaping is a necessary component to controlling the golf ball. Whether you need to hit a simple hook to find your way back
Golf’s Nine Shots

There are nine shots a golfer needs to master: the low draw and the straight one and fade, the regular height draw and the straight one and fade, and the high version of each option.

Try this fun and challenging exercise in your next practice session:

• Be sure to use an alignment string that is set up at a target within range of a 7 iron.
• Keep the size and pace of your swing at around 75%.
• Start on the ground floor (low) with the shot shape that is most comfortable for you (draw or fade).
• Stick with the low shots until you have hit one of each. Keep in mind the draws/fades should start at the target and curve away from it.
• Work up to the medium and high trajectory shots until you have also hit one of each.
• Keep track of the number of shots required to complete the SLAM (all nine shots) and set yourself a target score for the next time you practice.

This exercise will show you the type of shot that is most difficult for you. Some golfers really don’t know. Practice your most difficult shot until you can pull it off on the course.

This exercise will also serve to neutralize your swing and allow you to ultimately hit the ball straighter. If you struggle with slicing the ball, practice hooking the ball. If you hit the ball inordinately high, practice hitting low punch shots until you can consistently hit shots at a regular trajectory.

Get to a point where your extreme misses are less extreme than before and the ball will stay closer to the intended target and your scores will do the same.

Equipment

“It’s a poor craftsman who blames his tools.”

So often golfers are tempted to believe their equipment is the reason for the poor results they have been experiencing. Most often this is not true, yet there are certain cases where a golfer just has the wrong tools for the job.
Here are a few simple things to keep in mind when getting fitted or looking for an equipment upgrade:

• The latest is not necessarily the greatest. In fact, more often than not, the “latest” is the same old thing with a new paint job. Decide what you like and stick with it. I am currently using a set of irons with the same type of heads (blades), shafts (steel) and grips (rubber with reminders) that I used when I first started to play the game – and that was almost thirty years ago.

• When it comes to irons, there are three options: blades, the oversized “helper” set, and a combination of the two. Find the set that feels and looks best to you – not based on the current hype, but the clubs that look and feel best to you.

• When fitting your irons, there are two keys: length and lie angle. Do not go by 2 degrees over standard, or plus half an inch in length. All companies have different standards, but if you know the length and lie of your clubs, you will be immune to the differences. My 6 iron is 37.50 inches long and has a lie angle of 60.50 degrees. I will use those numbers for as long as I can swing.

• Get clubs that fit your body and not strictly your impact position on the day of fitting. Get rid of the lie boards and tape on the bottom of the irons, please. Or, if they are part and parcel of the fitting package, then at least factor in your shape tendencies before getting a set that is four degrees upright.

• Find a shaft that fits your swing and feels good to you, and then stay with it as long as they make it. Make sure it is not too strong. Do not get sold on the hottest shaft on the PGA Tour or that expensive new version that was recently released. What works for you works for you.

• When it comes to putters, there are two basic genres: face-balanced and toe weighted. If you are considering making a putter change – unless things have just been horrific on the greens -- try to stay within your genre.
• Fairway woods. There have been very few improvements made in the field of fairway woods. Titanium is very light, and thus the heads tend to get too big. Find a simple and small stainless steel head that you like the look of and set about developing a long lasting relationship with it. When selecting a fairway wood, decide whether you would like to use it predominantly off the fairway or more as a tee club, and select the loft of the club accordingly.

• Limit the number of wedges in your bag to a maximum of three: a PW, SW and a LW. Or a PW, GW and SW. If you struggle with the wedges, stick to a PW and SW so as to avoid any cloudy decision-making around the greens. Tour players practice enough, are skilled enough, and play the kind of courses that justify having four wedges in the bag. There should be an even number of degrees between each of your wedges. Most PW’s are 48 degrees (check yours online). In addition, I have a 54 and a 60. Other viable options are a PW and a 52 and 56, or a PW and a 53 and 58. Maintain a 5 or 6 degree spread between your wedges. When selecting your wedges be sure to incorporate enough bounce in each club. Unless your name is Seve, Phil or Tiger you need more than 6 degrees of bounce on any wedge you own.

• There are two different grip shapes: rounds and reminders. Find out what shape you like, and ask for it by name the next time you refresh your grips. Forget the latest “cool” grip colors or the most popular grip on tour. Tour golfers are more than likely getting paid to use a particular grip. Again what works for you works for you.

• When it comes to the driver – and only the driver -- it actually pays to stay current. Find a reputable club fitter in your area that uses a launch monitor and get fitted. When you get the urge to replace your current big stick, get back on the launch monitor to compare the latest offering with your trusty old steed. The current fitting carts make it very easy to try multiple heads with various shafts. Be patient, try them all, and find a club that gives you good numbers and looks great to you.
I have included this chapter because of the huge chasm between what a golfer feels they are doing and what they are actually doing. There is a major difference between feel and real. This is perhaps the biggest reason I have a job. In order to improve your game, it’s important to be able to see what you are doing. Self-analysis is a great way to make some impactful, long term changes in your golf swing.

Many of the students I teach own or have access to video cameras and computers. If you are keen on learning more about what makes the golf swing work, I would encourage you to purchase a video camera and tripod and install some swing analysis software on your computer.

**Warning** The following self-analysis advice will only be helpful if employed sensibly and sparingly. Do not allow yourself to become a swing junkie. The golf swing is a fluid, athletic motion that should not be continually broken down into frame-by-frame segments. If you find yourself running back to the camera after each poor showing on the course, get rid of it. Try to not be too critical of yourself. Understand that everyone has his or her own unique swing, and if you can simply upgrade the functional elements of your swing you will start to hit better shots. I would recommend that you record and analyze your swing no more than once a month. Take a quick look at your swing, decide what element(s) you would like to improve, and spend the next month working in that direction.

**Equipment**

**Tripod:**
In order to maintain a consistent viewing perspective, a tripod is a must. When analyzing your swing, you want to compare apples to apples, which means you must capture the swing from the same vantage point every time. Years of experience video-taping golf students has taught me that moving the camera, or having it out of position, can drastically change the appearance of the swing. Any camera movement during the swing motion will render the lines placed on the screen for analysis useless. To optimally view your swing, purchase a simple and lightweight tripod. I have used the SLIK 8000U for years, but there are numerous workable tripods out there for under $40.

Camera:

There are some amazing and very expensive cameras on the market today. You are free, of course, to purchase whichever camera suits your budget, but all you really need is a simple digital DV camera with shutter speed. Do not purchase a camera that simply offers “sport mode.” In “sport mode” the club travels too fast in the downswing to produce clear images. Try to find a camera that has at least 1/1000 shutter speed. The camera I use every day to video tape my golf students cost about $200. Flip Video produces a handy little camera that works beautifully for about $130. www.theflip.com

Software:

There are all kinds of golf software on the market today and you’ll just have to spend some time researching what works best for you. Before you start your search, here are a few things to take into consideration:

Select software that will allow you to draw reference lines on the screen, preferably with angles. Also look for a software package that allows you to split the screen and compare your swing with other golfers. The premier product out at the moment is from V1Golf.

www.v1home.com

V1 offers home-based consumers a free download, or the option to purchase a $40 premier version. Both versions allow you to record, analyze, and submit swings to V1 golf instructors. (Yes, I am there.) Very few companies include professional swings for comparative purposes; however, V1 does provide the option to download several Tour golfer swings, including multiple PGA and LPGA major champions. The premier version allows you to print, view swings at variable speeds, compare two swings, and even record voice-over. In order to “capture” your swings into your computer you will need a DV video camera, Windows 98SE, Me, XP, or Vista, Pentium III 500 MHz, 500MB free hard drive space, 128MB RAM, 4MB Video RAM, 16-bit sound card, CD-ROM drive and a Video capture device IEEE-1394 - for Windows 98SE or later. Note: this looks like a long shopping list, but most of today’s computers come with all of the above pre-installed.
Now that you have assembled the required equipment, let's turn our attention to making it work for you.

**Camera set up:**

Most golf instructors use two primary angles when recording the swing: face on, and down-the-line. When recording from either angle, be sure to use an alignment string which will aid in camera/tripod placement. Whether hitting an iron or a wood, place the ball on a tee. This is done to maintain a consistent ball position relative to the camera. When hitting irons, the ball should be so low on the tee it is almost flush with the turf. Place the ball 2-3 inches inside the alignment string. With the shutter speed set to 1/1000 or higher, and the zoom feature all the way out, you are now ready to begin recording.

**Face-on:** When positioning the camera without a golfer at address, position the tripod at right angles to the alignment string, directly across from the golf ball. Try to position the string in the viewfinder so that it is parallel to and right along the bottom of the picture in the viewing screen. This is very important if you wish to use any angles – 84 degrees -- in viewing your swing. Allow ample room in the screen for you to set up and swing while still fitting the arms and club into the picture. A little trial and error will be required, but once you find a winning formula stick with it. Consistency is vital in recording, as this is the foundation from which you will evaluate your swing and body motion.

**Down-The-Line:** There is tremendous opportunity for variance when recording from down-the-line, so great care must be taken in camera/tripod placement. There are three options for camera placement: along the toe line, between the toes and the ball, and straight over the ball down the target line. The following three down-the-line photos indicate the effect camera position has on the appearance of swing plane.
Subtle changes in camera position have a huge effect on how the swing is viewed. Each of these three camera positions have their own pros and cons, and if you currently are using a different set-up position and are happy with it, there is no need to change. Personally, my favorite camera position is between the ball and the toes, because it gives any swing the most neutral look in reference to plane and path.

Whichever position you choose, the key is consistency. You cannot correctly evaluate your swing if the measurement parameters are continually changing.

Computer Self-Analysis

When analyzing your swing, there are a few lines that are very helpful in evaluating which areas need attention. If you do decide to utilize the software from V1Golf you will have the ability to draw lines with angles, circles and compare two swings side by side.
Face-On Evaluation:

Here are a few of my favorite lines and positions to use in a face-on angle evaluation:

- **Vertical line up from the ball:** With a middle to short iron, the hands should be slightly ahead of the line; the ball position should be centered or just forward of center (this must be correct or the line will be misplaced); and the line should pass between the nose and ear.

  ![Image of face-on evaluation with a middle to short iron](image1)

  With a driver, the hands should be behind the line and the shaft should be parallel; the ball should be positioned on or just inside the lead heel; and the line should pass slightly forward of the head.

  ![Image of face-on evaluation with a driver](image2)
- **Vertical lines up from the inside of each heel:** With all full swings, the head should be between the vertical lines. If this is not the case, the spine and shoulders are tilted too far forward or backward.

- **The 84 degree line:** When evaluating a mid iron, this line is great for helping with the address position as well as body position near the top of the backswing. Notice how, in the address position, the line does not cross through any part of the head.

**Circle/oval around the head (Any club)** The head should remain quiet. It should not move left or right or up and down from its original address position.
Down-The Line Evaluation:

Here are a few of my favorite lines and positions to use in a down-the-line swing evaluation:

- **Shaft plane line at address:** This line applies to all clubs and all shots. The club should never get under or too far above the plane line as it approaches impact. If the club gets a little under or above the line in the backswing -- without being excessive -- that is acceptable. This line is vital in illustrating the path of the clubhead through the hit. If you are under the plane line approaching impact, you will be hitting pushes and hooks; too far above the line and you will be hitting pulls and slices. The shaft should optimally return to the line once the club gets to impact, but keep in mind that being a few degrees above the plane leading into and at impact is normal and acceptable. I have only seen a handful of golfers ever return the club to the identical angle it occupied at address, and two of them are in this book: Ben Hogan and Nick Price.

As the club passes through impact, look for it to reappear on the opposite side of your body, slightly above the line. Too low and you are more than likely coming over the top and cutting across the ball; too high or above the shoulder, and you are most likely over extending through impact or getting the club under plane coming into the ball.
• **A second line ten degrees above the shaft plane line from the toe of the club:** These lines apply to all swings. The idea behind this combination of lines is to give the player a visual sense for the swing plane. The club should remain within the ‘channel’ created by the two lines throughout the backswing and downswing.

• **Vertical line down from the butt end of the club once it gets to the top of the backswing:** When evaluating a swing with this line, it should ideally fall between the heel and shoe laces of the back foot. If the line falls behind the shoe, the shoulders are invariably turning too flat; if it falls forward of the toe, the arms are lifting and ‘separating’ from the body.
As you video, view and evaluate your swing, remember that your goal should not be perfection, but function. Keep things simple. Find one element of your swing you wish to improve, work on that element for a month, and then take another look. With determination, dedication -- and patience -- you will soon find yourself hitting better golf shots and racking up better golf scores.

Avoid this...
You are the future of the game. I have worked with juniors my entire golf career, and I am not exaggerating when I say they teach me as much as I teach them. There is no way I can cover everything I would like to say to junior players in this brief chapter – that’s another book– but I have put together a brief summation of some “high impact” recommendations that I believe can improve both your game and your life.

• Compete casually and seriously, as often as possible. One reason boys are often better chippers than girls, is because boys love to compete, especially around the chipping green. It is this competitive environment that stretches a player to create new and better shots. Boy or girl, apply this philosophy to every element of your game, and you will see dramatic improvement.


• Study and learn to appreciate the history of the game. Do you recognize the name Bobby Jones? Why is St. Andrews such a special place? Who is Dr. Alister Mackenzie? I whole-heartedly believe that acquiring an appreciation of the history of the sport and those who have walked the fairways before you will improve your respect for the game, and your game itself. Read books and ask questions. You will be better off for it.

• Take full advantage of every opportunity given to you. Do not give yourself the chance to look back and regret that you did not take every chance, every day, to give 100% effort. Do everything to the best of your ability.

• A fierce heart beats out a pretty swing. When it comes to the game of golf, this statement will be forever true. Not all golf champions have pretty swings, but they all play the game with a tremendous amount of heart.

• Respect the etiquette, honesty and integrity of the game. Play the game at a higher, more respect-filled level than your peers. The vast majority of champions were very clear in this regard; they
always played the game the way it was meant to be played. Behave in a first class fashion on the
course, and this behavior will carry over in first class fashion into all areas of your life.

- There is no place for gamesmanship in golf, or any sport, for that matter. It has become quite
fashionable in modern culture to “win at all costs” with little respect for your opponents or, perhaps
more importantly, your integrity. Play the game to the best of your ability and may the best person
win.

- Play with the best golfers you can find. Nothing will improve your game more quickly than playing
with people who are better than you are. In other words: getting whipped on the course every now
and then isn’t a bad thing. Play up, and play under. Both will show you where you need to improve.

- Have fun with the short game. Try to hit the craziest shots you can imagine. It will teach you how to
control your clubface and, ultimately, the ball. When I was a junior, I remember my friends and I
having SW long drive contests. Try to hit the highest, lowest, shortest shots you can think of; it all
adds up to creativity -- and competition -- around the greens.

- Walk versus ride. Golf carts have been forced into the game for financial reasons. Contrary to
popular belief -- while they do allow some golfers who would not otherwise be able to play a
chance to enjoy the game – golf carts do not speed up the game, they do not provide the golfer with
a better experience, and they do not improve the design of golf courses. Walking allows you to play
the game as it was meant to be played – on foot. Never mind providing you with a better feel for the
course along with a workout. Commit to never riding again unless it is absolutely called for.

- You do not have to be the next Tiger Woods. This is a huge issue I see among junior golfers and
their parents in society today. When did it stop being okay for junior golfers to just simply play the
game for enjoyment? It seems that every junior golfer – and his or her parents -- has their sights set
on the Tour, and no expense or sacrifice is too great for that slim shot at stardom. If you want to
play like a pro, by all means go for it. But if you just like the game for the pure fun of it, that’s fine
too.

- If you are 15 years-old or over and serious about being good at this game, as with any serious
sports endeavor, you will need to get strong and fit. Find a trainer who knows the golf swing and
how to train for golf. Don’t just go to a gym and start throwing some weights around.

Best of luck with your game. By the way: I would love to hear from you. You can visit my blog
and email questions and comments to me at www.andrewricegolf.com.
In Closing

Trying to write a golf instruction book that applies to the entire golfing population is like trying to issue one weather report for the entire planet -- it simply can’t be done.

As golfers, we are all different. We have different strengths and weaknesses, different physical shapes and abilities, and we play to different handicaps with different expectations.

The object of this book was to illustrate how I learned by studying The List players that, despite our differences, by doing a few simple things the same, we can all achieve substantially improved results in our golf game.

You don’t have to lose your own personal style and preferences in order to improve your game. Leave style and perfection by the wayside, and simply set your sights on improving the function of your swing.

I think you will see, as I have, that, in the end, it is all about impact.

I hope this book has been informative, instructive, and worth your time and money. I would love to hear from you, either way. You can comment on my blog, or email me with questions and comments at www.andrewricegolf.com.

Keep it straightforward and stay patient.

All the best,
Andrew Rice
Reference Books used in compiling “It’s All About Impact”

“Lessons From The Golf Greats” by David Leadbetter
ISBN-10: 0006386202

Publisher: McClelland & Stewart (2004)
Illustrator: Keith Witmer

“Bobby Locke on Golf” by Bobby Locke
Publisher: Simon and Schuster (1954)
Library of Congress CCN: 54-5807

“The Methods of Golf’s Masters” by Dick Aultman and Ken Bowden
Publisher: Coward, McCann & Geoghegan, Inc. (1975)
SBN: 698-10651-2

“Golf Illustrated” by Patty Berg
Publisher: A.S. Barnes and Company (1950)

“Byron Nelson’s Winning Golf” by Byron Nelson
Publisher: Taylor Publishing Company (1946)

“Natural Golf” by Seve Ballesteros with John Andrisani
Publisher: Collier Books (1988)
ISBN: 0-02-048361-9

“Golf Annika’s Way” by Annika Sorenstam
Publisher: Gotham Books (2004)
ISBN: 978-1-592-40356-1
“How to Find Your Perfect Golf Swing” by Rick Smith
Publisher: Broadway Books (1998)
ISBN: 0-7679-0123-1

“How to Find Your Perfect Golf Swing” by Rick Smith
Publisher: Broadway Books (1998)
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“Play Golf the Wright Way” by Mickey Wright
Publisher: Taylor Trade Publishing; New edition (1993)
ISBN-10: 0878338136

“Power Golf” by Ben Hogan
Publisher: A.S. Barnes and Company (1948)

“Power Golf” by Ben Hogan
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“The Impact Zone” by Bobby Clampett and Andy Brumer
Publisher: Thomas Dunne Books; 1st edition (2007)
ISBN-10: 0312354819

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