

The Golf Swing

Driving for Distance



MV²=E

Elements of Driving for Distance

There are many influences that affect the distance a player hits their drive. This class is going to focus on a few of the following elements:

- Clubhead Speed – Does the player have the proper club and swing in a way to maximize speed?
- Center Face Contact – Does the player swing allow the ball to be contacted on the center of the clubface (sweet-spot) and/or does the player have a club that maximized distance with slight mis-hits?
- Ball Launch Angle – Does the ball launch off of the club at the best angle to produce distance?

Club and Ball Keys for Distance

- Lightweight Clubs – Light shafts made from graphite.
You do not want a light clubhead.
- Large Titanium Clubhead – These heads transfer energy to the ball better than steel and allow slight mis-hits to go farther.
- Proper Loft – Slower swing speeds require more lofted clubs
- Shaft Length – Longer shafts produce more speed, but may make it difficult for the player to hit the ball on the sweet-spot.
- Distance Ball – Usually the least expensive balls you can buy marked “distance” or “power”, stay away from balls marked as “spin” and “tour”.

SET-UP KEYS

Generally, the ball flight that produces the maximum distance is straight or has a slight draw (right to left for right handed golfers) to it. A golfer can help insure this type of flight and maximize power by following these points:

- Straight, Not Rounded Spine – This allows for maximum shoulder rotation.



- Grip in a “Power Position” – Creases formed by thumbs and forefingers on each hand point at back shoulder.



- Spine Tilt – Good players will normally tilt their spines 5-10 degrees. This keeps their head and upper body behind ball at impact.



- Balanced Weight – Body weight centered on feet. Weight even or slightly favoring right foot.
- Solid Base – Feet around shoulder width apart, knees slightly flexed.

BACKSWING KEYS

Body Rotation and Coil

- Full shoulder turn. Text book position would at least a 90 degree rotation or better. You'd like your left shoulder behind the ball at the end of the backswing. The amount of rotation will vary depending on your flexibility, but you should at least be trying to achieve more rotation.
- Hips should turn half as much as shoulders. If you keep your right knee flexed and left heel down on the backswing you will keep your hip from over turning.
- Look at the picture below and take notice of the right foot, knee, hip and shoulder. Notice that the foot hasn't moved, the knee has rotated around 10 degrees, the hips 45 and the shoulders 90. That increasing amount of rotation from the ground up creates muscular tension or a "coil". That coil created like winding up a rubber band will unleash extra power and speed on the downswing need to hit a driver.
- The simplest way to achieve this optimum coil is to turn you shoulders as much as you can while leaving your left foot on the ground and keeping you right knee braced.

Arms and Hands

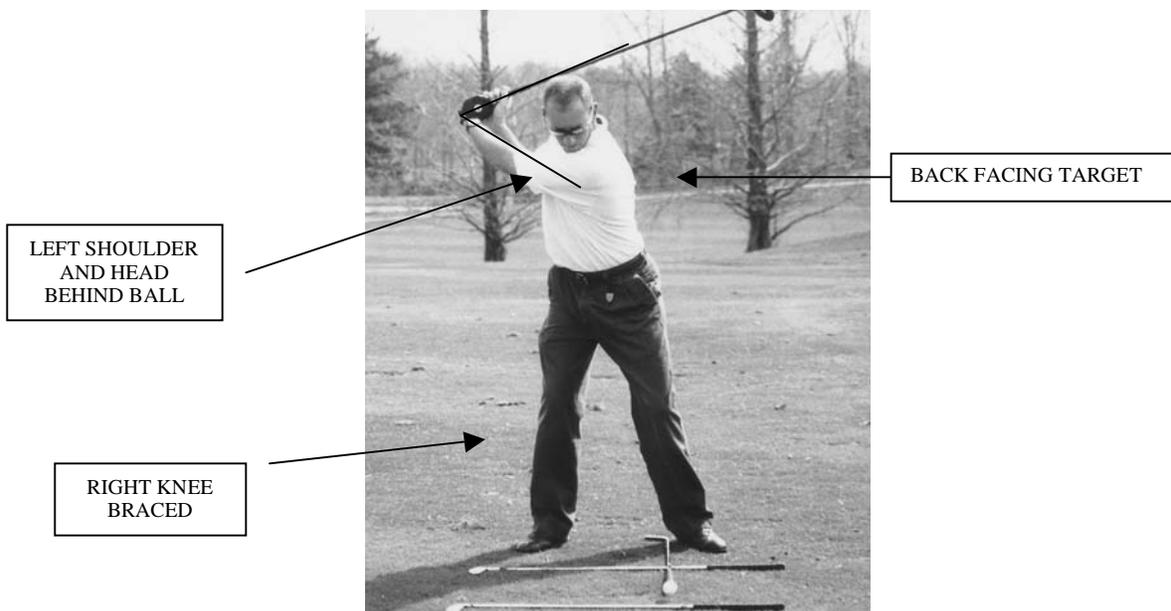
- Left arm extended, right arm away from body.
- Wrists hinged at 90 degrees.

Legs and Feet

- Right leg resisting, left knee points at ball.
- Body weight rests on inside of right foot
- Left foot on the ground, slight rolling of ankle.

EXCEPTION

For players finding it difficult to rotate because of poor flexibility, the left heel may come up off the ground on the backswing.



DOWNSWING KEYS

Start From the Ground Up

- While most of your body begins the downswing simultaneously, it is the legs and hips that move the fastest at the start of the downswing shifting a majority of your weight onto the left leg.
- Unwind your body as fast as possible while maintaining your posture.
- Staying in your posture will help you make contact on the sweetspot.

The Clubhead is Last

- Keep your wrists hinged well into the downswing. That keeps your clubhead trailing behind.

IMPACT KEYS

- Head stays behind ball.
- Both arms fully extended.
- Club is approaching ball from the "inside".
- Clubhead just starting into the upswing.
- Swing "through" the ball, not "at" it.



Release

The "Release" is the rotation of the forearms and hands and the unhinging of the wrists. This motion not only increases clubhead speed it also helps to make square contact with the ball.



BALL SPEEDS AND LAUNCH ANGLES TO MAXIMIZE DISTANCE

<u>Ball Speed</u>	<u>Launch Angle</u>
170	11-12 degrees
160	12-13.5
150	12.5-14
140	13-15
130	14-16
120	15-17
110	15.5-17.5
100	16-18.5

As you can see by the above chart that the ball should launch off of the clubface at angle higher than the loft of most any driver.