

## Golf Swing

The golf swing is just that, a swing. In nearly all sports that involve swinging an implement, a bat, a hockey stick or racquet, the object to be struck is moving. In golf, the ball is always stationary. The golf swing is similar to other swinging motions in sport. For golf, you need to learn only one basic swing. As distance requirements change a different club is selected from the set for the needed yardage.

The golf swing is a circular motion around the body similar to a baseball swing. The difference is that while a batted ball ideally is around waist high when it is struck, a golf ball is on the ground. In a golf swing the plane that the club travels on is tilted.



1998 PGA Champion Vijay Singh demonstrates the swing at a PGA Past Champions Clinic

The golf swing has two distinct phases – pre-swing and in-swing. The pre-swing phase, the preparation that occurs before playing, includes a pre-shot routine and addressing the ball. The in-swing phase is the actual swinging of the golf club. The swing should be completed in one smooth, fluid motion. The entire swing is often broken down into smaller components that include the: address, takeaway, change of direction, down swing, impact and follow through/finish.

## Golf Swing Mechanics

### Address Position

It is important that we have the proper stance to help create balance. It is vital that we maintain proper balance throughout the golf swing.

- Stand up to the ball with your ankle joints under your shoulders.
- The weight should be evenly distributed between the heels and the balls of the feet. The weight is actually directly over the arches but since most arches don't touch the ground you will feel it balanced between the balls of the feet and the heels.
- Your weight should be evenly balanced between the right and left foot.



Setting an imaginary target line



Setting your grip



Aiming the clubface



Address position

### Posture

To position the upper body correctly you must have the proper stance as described above.

- Push your hips back and tilt forward from your hips until the bottom of your sternum points at the ball.

- Tilt your spine away from the target so your trail shoulder is lower than your target shoulder.

## Alignment - Clubface & Body

It is critical that you align your body and aim your clubface correctly in relation to the target. If you make a good golf swing but are aiming incorrectly you will hit the ball in the wrong direction. To aim correctly:

- Stand about three feet behind the golf ball and select a spot on the target line no more than a few feet in front of the ball. The target line is an imaginary line that connects the golf ball to your intended target.
- When you have selected your spot, walk up to the ball with your eyes looking at that spot and place the clubface behind the golf ball facing the spot and target.
- Make sure to keep looking at the target as you set your feet the correct width and take your proper address position.



## Grip

The grip is one of the key fundamentals to a good golf game. Without a proper grip it is very difficult to attain the most out of your golf game.

- While standing up straight, hold the club up in front of your body at a 45-degree angle with your trail hand on the shaft just above the grip.
- With your target hand, simply shake hands with the grip (placing grip of club diagonally across base of fingers).

- Slide the trail hand down the shaft of the club so the target hand thumb fits into the lifeline of the trail hand. At this point the target hand thumb is being covered up with the thumb pad of the trail hand.
- Pressure: Hold the golf club firmly, but do not squeeze.



Overlapping grip



Interlocking Grip



Baseball Grip

## Full Swing

Now that your body is in the proper address position it is time to move your body, arms and club. As you swing the club the trunk will turn to move the club backward and forward and the arms will move the club up and down. It is also important to make sure the hands and arms stay in front of the torso throughout the golf swing.

### Proper movement of the shoulders:

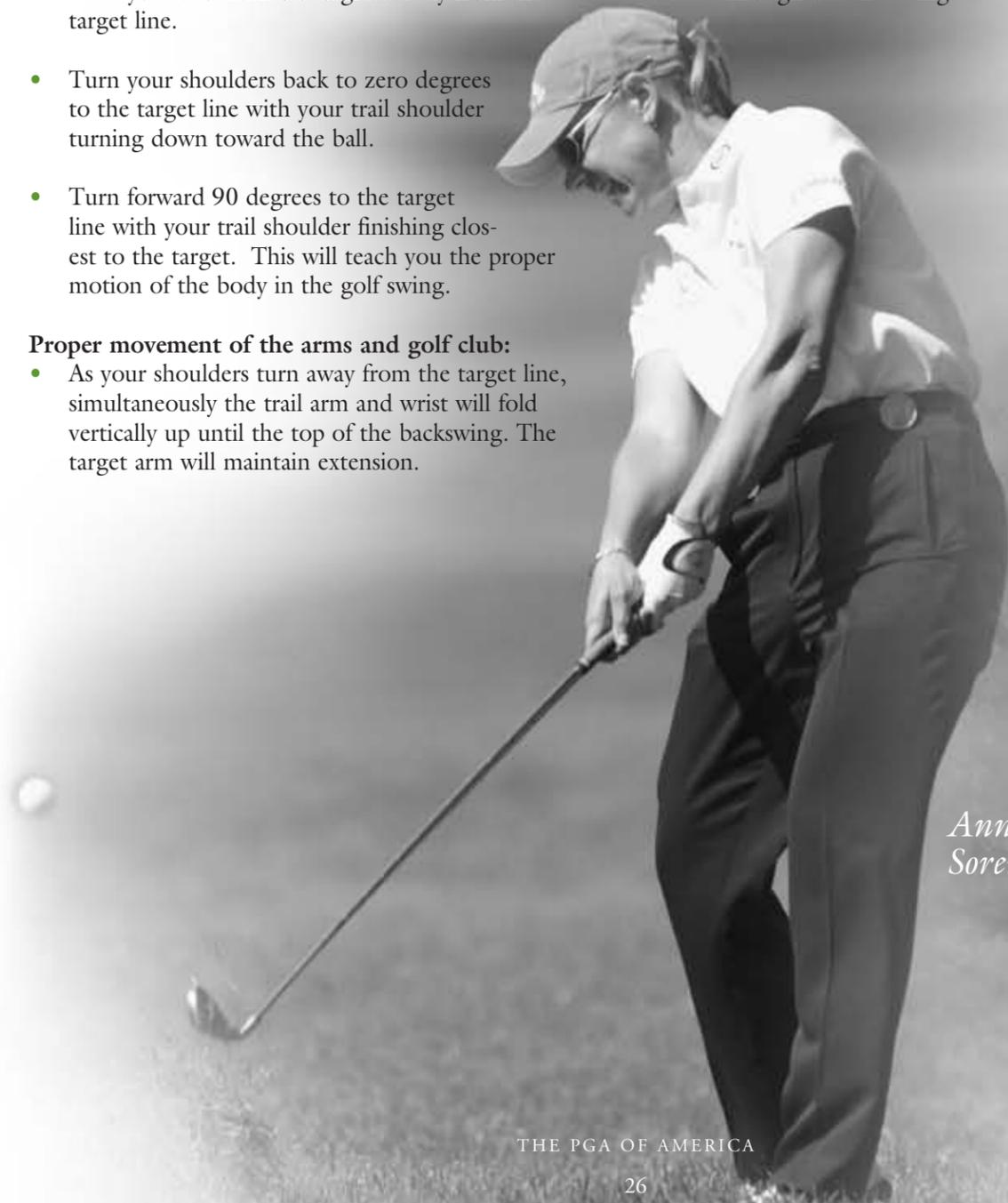
- Place a golf club across your shoulders and criss-cross your hands to opposite shoulders.
- Turn your shoulders 90 degrees away from the target line.
- Turn your shoulders back to zero degrees to the target line with your trail shoulder turning down toward the ball.
- Turn forward 90 degrees to the target line with your trail shoulder finishing closest to the target. This will teach you the proper motion of the body in the golf swing.

### Proper movement of the arms and golf club:

- As your shoulders turn away from the target line, simultaneously the trail arm and wrist will fold vertically up until the top of the backswing. The target arm will maintain extension.

- At the top of the backswing your hands should be in front of your chest between your shoulders.
- As your shoulders return to the ball (zero degrees) the trail arm and wrist will straighten up through impact. As the shoulders turn through to the finish (90 degrees) position the target wrist and arm will hinge up over the target shoulder while maintaining extension of the right arm.

In order to hit the ball most efficiently you must maintain a steady spine angle from start to finish. This is accomplished by keeping the hips pushed back through out the swing.



*Annika  
Sorenstam*

## Bunker Shots

Bunker shots are swings where the objective is to hit the sand underneath the ball and the ball flies out with the sand. The image of taking a slice of sand the size of a dollar bill seems to work for most golfers.

First, go through your aim and alignment drill. After you have your target line and your intermediate target set, then place your hands on the grip. Many players make the mistake of gripping the club first and then rotating the shaft to open the clubface. Remember that your club cannot touch the sand in a bunker, otherwise you incur a two-stroke penalty for grounding your club in the hazard.

**There are four factors that control the height and distance of your shots:**

- The more loft you add to the clubface by moving the shaft back at address, the higher and shorter the ball will carry.
- The steeper the angle of your approach into the ball, the higher and shorter the shot.
- The more clubhead speed a swing generates, the farther the ball will carry.
- The more sand you displace under the ball, the shorter the shot.



*Jim Furyk*

## Chipping

Whatever club you've selected for this chip, set the angle of the shaft so it is more vertical and resembles the upright angle of your putter. When you address the ball, the club should rest more on the toe than it would for a full shot. The grip end of the club should be pointing towards the middle of your body, and your weight should be evenly distributed between the balls of your feet and the heels. Bear in mind that a chip is

very much a "one-lever" stroke. Ken Venturi, who had one of the best short games in history, likes to tell people to imagine their hands were molded together in a cast when chipping. Almost everyone agrees that you want to grip the club lightly, since this helps promote better feel. And always try to keep the back of your left or top hand moving on a line parallel to the target line. This will help keep the clubface square to the target.

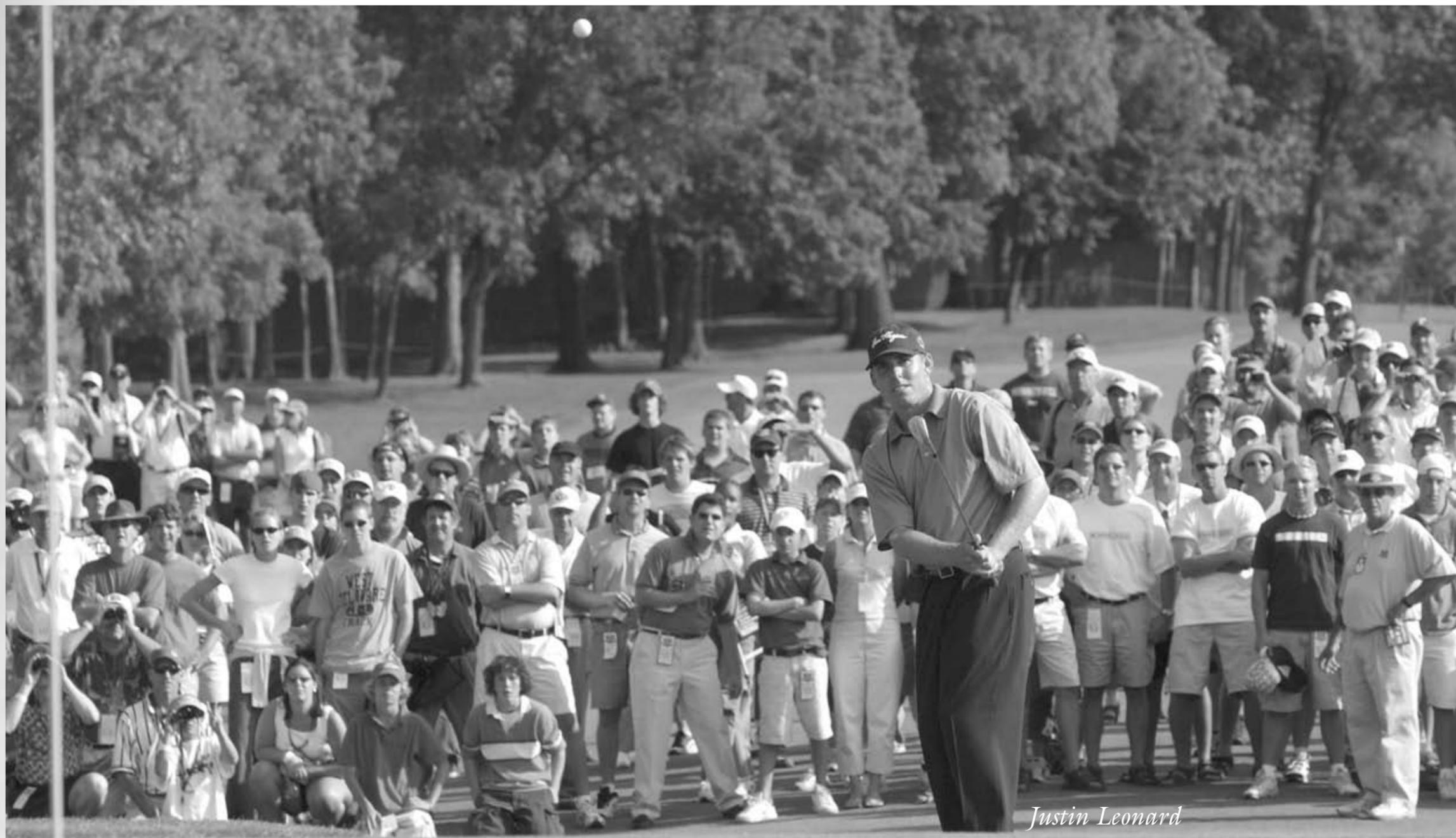


*Juli Inkster*

## Pitching

The basics of good pitching mirror those of chipping. Employ your full-swing grip with a light grip pressure and play from a slightly open stance. A slightly open stance pre-clears your hips and helps you deliver the club directly along the target line. What varies when hitting a pitch shot is the ball position, both in your stance and relative to the position of your hands at address and impact. If you have a tight lie off close-cropped grass, or a poor lie in the rough, you need to play the shot with your hands slightly ahead of the ball,

with the ball back slightly in your stance. This will cause the ball to fly on a lower trajectory and run farther. As the lie improves, you can position the ball more towards the middle of your stance, with your hands either even with the ball or fractionally behind. This will allow you to employ the full loft of the club. Given a consistent ball position, the more you position your hands behind the ball, the more effective loft you add to the club, the higher the ball will fly and the softer it will land.



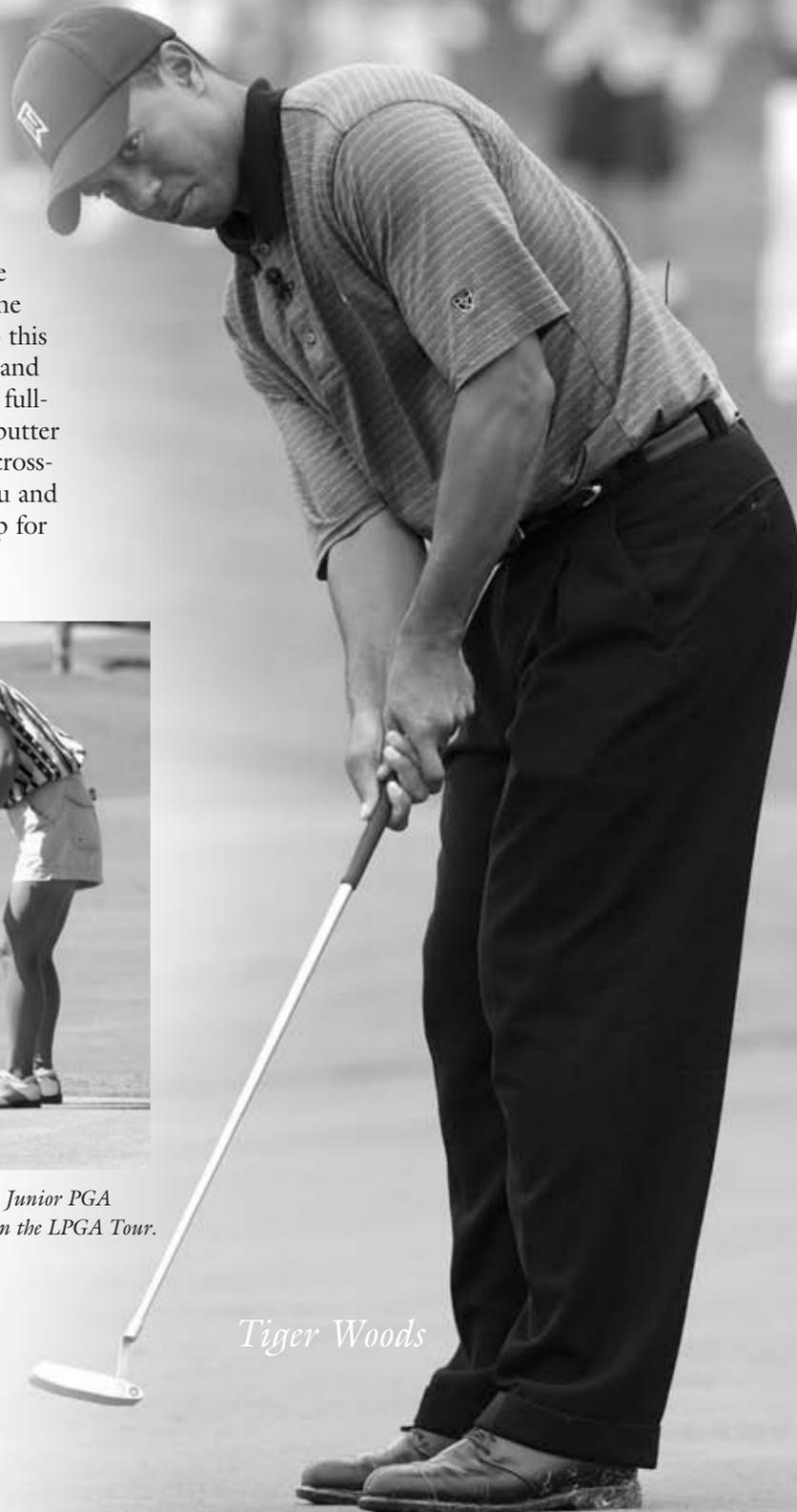
*Justin Leonard*

## Putting

The two main factors in putting are distance control, which is determined by the backward and forward swing of the club, and direction, which is determined by where the clubface is pointing at impact. At address, your ankle joints should be under your shoulders. Push your hips back and up and let your arms hang naturally from your shoulders. Your eyes should be directly over the ball since placement is crucial to help ensure solid contact. As with other shots the best way to aim the ball properly is to pick out an intermediate target on your target line a foot or two ahead of the ball. Align the blade of your putter and the ball to this target. Your grip should be light and comfortable and needs to provide control and accuracy. Unlike the full-swing grip, there are a variety of ways to grip the putter that range from a split grip with hands apart to a cross-handed grip. Whatever is most comfortable for you and allows your hands to work together is the best grip for you.



*Grace Park sank a 10-foot putt on the final hole to win the Junior PGA Championship in 1996. Today, she is a leading money winner on the LPGA Tour.*



*Tiger Woods*

## CHAPTER 5

# Ball Flight Laws

*Every golfer will find it helpful to know why the golf ball flies as it does.  
The ball flight laws are based on the principles of physics.*