

## Golf Injuries, Part 3

### WRIST PAIN: MECHANISM OF INJURY AND TREATMENT PROTOCOLS

Jeffry Blanchard, DC

Wrist pain is a common occurrence among golfers. There are two general types of wrist injuries: striking injuries and repetitive-strain injuries. These injuries, caused by faulty swing mechanics, have the potential to create extreme mechanical strain on the connective tissues of the upper extremities. Remember, your average patient can swing the club at 90 mph. When patients play golf or go to the driving range, they will swing the club hundreds of times. If they're out of position, it's easy to be injured.

#### The Striking Injury

This can occur when hitting the ball from the deep rough. As the club face meets the resistance of the thick grass, it will decelerate rapidly while the arms and hands keep moving at a high rate of speed. The result is potential sprain/strain of the muscles, tendons and ligaments of the wrist and/or elbows.

#### The Repetitive-Strain Injury

Repetitive strain indicates repeated microtrauma from overuse. This syndrome will have two root causes: an incorrect grip on the club and/or a failure to keep the club shaft on the correct incline plane as it moves around the body.

*The Grip.* How your patient's hands are placed on the club will have everything to do with how the wrists hinge and the elbows fold when swinging the club. When the hands are properly placed on the grip, the club is held firmly by only five fingers: the middle, ring and little fingers of the left hand, and the middle and ring fingers of the right hand. The remaining fingers are in light contact for the purpose of support and "feel."

When the hands are incorrectly placed on the grip, it becomes difficult to get the club shaft into the correct upward position as the club head moves behind the body. At the top of the backswing, this puts a mechanical strain on the elbows and wrists when they try to find the downward path back to the ball with the club head traveling at 90 mph.

*Incline Plane.* During the backswing, the club head moves upward and then behind the body. Your patient is in trouble if the club shaft is not pointing at the plane line during the downswing. The plane line is the reference for movement of the golfer's body and shaft of the golf club during the swing. The plane line extends from the golf ball to 10 feet behind the golf ball. When the club shaft points to the plane line, it is on the correct incline plane. (Note: There are 13 different incline planes, one for each club in the bag.)

The most common problem your patient will experience is when the incline plane of the club shaft becomes too steep or too flat during the downswing. The club shaft most point at the plane line during the downswing. Otherwise, your patient will flip, push, twist or turn the wrists and forearms (as a last-second correction) to get the club head to make contact with the ball. This is the root cause of a repetitive-strain syndrome: being out of positional alignment and then repeatedly

swinging the golf club.

## Correction Protocols

*The Grip.* Advise your patients to obtain a grip trainer and take 30 to 50 practice swings daily until the corrected grip feels natural.

*Incline Plane.* Using a "swing light trainer," have your patient bring the club to the top of the backswing and stop. Where is the heel light pointing relative to the plane line? If the light is shining inside the line, the incline plane is too steep. If the light is shining outside the line, the incline plane is too flat. The light beams from the trainer extend the club shaft to diagnose the status of the incline plane. The lights need to point to the plane line in order to safely swing on-plane.

Have your patient take repeated practice swings with different golf clubs (sand wedge through driver). Make sure the head and heel lights from the swing trainer always make contact with the plane line.

MAY 2008