

Lower Back Pain... A Golfer's Worst Enemy

by Dr. J. Darcy Dill

Professionals and amateurs alike know that being hit by flying golf balls or swinging clubs is a common hazard on any golf course, but many golfers don't realize that their golf swings can be far more dangerous than flying objects, sunburn or golf cart mishaps. A golf swing affects the spine with loading mechanisms that are rapid, complex and intense, generating compression loads of 1,500 pounds... more than *eight times* your body weight. By comparison, running only generates four times the body weight in compression loading.

The most common injury among golfers is lower back pain, and this makes sense when you think about what happens to the lower back during a golf swing. The golf swing is a unilateral movement requiring the lumbar spine to forcefully rotate, laterally flex and *extend*. This creates imbalances between the muscles and joints on the opposing sides, and these repetitive strains build up over the years. The average golf swing also involves significant rotary torque to the joints of the spine, demanding a wide range of motion at high speeds, and a golfer makes this kind of swing 30 to 40 times in an 18-hole round. This type of exertion and muscle contraction puts golf on the same level as hockey or football, but conditioning levels are not commonly considered the same (though they should be).

Even touring pros sustain an average of two injuries per year, so, don't feel alone if you get hurt playing golf. Statistics show that there is a 75% chance that golfers will sustain at least one debilitating injury from swinging a golf club. So how can you protect yourself?

FIRST THINGS FIRST

The most important thing to do when working on a plan to protect your back, is to address whatever current injuries might exist. Treating back pain in golfers takes many different forms, depending on where the pain is located and who is doing the treating. Some standard approaches for treating an acute case of low-back pain are rest, ice, decompression and mild movement.

These interventions honor the body's natural intelligence as it attempts to heal itself, and that includes avoiding movements that aggravate the swollen tissues. About two days of rest should be sufficient in most cases, but if it hurts to move, then don't move. Hang up your golf clubs until the acute pain subsides, and above all, don't make movements that exacerbate or worsen the pain.

While resting, apply ice to the painful area for 20 minutes and then rest without ice for another 20 minutes. Do this on and off for two hours at a time, but be careful not to let the ice come into direct contact with the skin (use a cloth to protect the skin from irritation). Take at least two of these two-hour treatments per day.

For added benefit you can do a "static-back position" passive exercise. Lie on your back with your calves on the seat of a chair elevated so your hips and your knees at a 90° angle. Stay in this position for 10 - 20 minutes, twice per day. It is important that the chair is not too high and your hips are not pulled off the floor.

If you decide to go to an orthopedic medical doctor, he or she will probably advise you to take some sort of medication, such as NSAIDs (non-steroidal, anti-inflammatory drugs), narcotics, or steroids. As a last resort, you might even be given the option of a cortisone injection. Once the pain has subsided, an orthopedic medical doctor will usually prescribe some sort of physical-therapy. If the pain does not go away, surgery may be an option.

If you go to a natural medicine doctor (like a chiropractor), the pain will be addressed with different types of adjustments and a variety of exercises on a gradient to slowly get your back working again. They may also use physical-therapy modalities like electronic muscle stimulation or ultrasound.

If you go to a physical therapist or chiropractor, he or she will probably stretch your lower back, which can be done in a variety of ways. Some health care professionals will prescribe "disc distraction," which comes in different forms, such as a vertebral-distraction pump, long axis distraction tables or simple hands-on distraction using wedges. This will not only create more disc space to "slide" the disc between the vertebral plates, but it will also stretch the *quadratus lumborum* muscles located in the lower back.

You can also stretch your spine doing a supported back stretch. Secure a strap or rubber tubing with handles over a door or beam, and grasp the handles so your palms face one another. Slowly lower your buttocks back and down until you feel a gentle stretch on your lower back. Start with one or two minutes and work up to five to seven minutes.

It is very important not to overdo these exercises. If your pain gets worse, you should stop, return to resting, and continue the static-back position exercise. It is also important to consult with your health care practitioner before using any of these exercises.

ONCE THE INITIAL PAIN HAS SUBSIDED, FOCUS ON PREVENTION

The next step is to start by considering yourself an *athlete*, and as an athlete, prepare your body for the rigorous demands of your game by following conditioning practices with the same dedication a football or basketball player would. That means:

- . A proper warm-up before playing.
- . Conditioning your body to do the moves demanded by the sport.
- . Learning how to make the moves more efficiently.

These practices can definitely help, though the odds are at some point you *will* experience back pain despite even the best conditioning routine.

According to medical textbooks, the lumbar spine was only designed to rotate 10 degrees. In a typical golf swing the entire body rotates about 90 degrees. In a violent, body-unfriendly golf swing, much of that rotation is transferred to the lumbar spine, and when you exceed the normal range of motion, you set yourself up for injury.

Lower back stabilization comes from a good exercise regime and from the low-torquing that comes from a body-friendly golf swing. This means using more hip rotation instead of placing the burden of rotation on the lumbar spine. The way to get more range of motion in order to create a big shoulder turn and wide swing arcs is to increase your hip rotation, and this can be accomplished by practicing the following two exercises:

WINDSHIELD WIPERS

Lie on your back with your knees at a 90-degree angle and both fists together between your knees. Keeping your calves parallel to the ground and your knees pressing against your fists, rotate your legs out to the side so that your knees and legs look like they are wiping a windshield on a horizontal plane. Do this for ten repetitions, pressing the feet out for one or two seconds each time the legs spread out.

KNEE DROPS

Sitting on the floor, put both hands on the floor behind you so that they can support some of your weight. Put both feet flat on the floor in front of you about six inches wider than shoulder width. Your knees should be at about a 90 degree

angle. Move the right knee so that it drops inside towards the ground. Try to make the movement of the right leg come out of the right hip joint by keeping the butt cheeks on the ground. Then, when the right knee can go no further, let your butt rotate to allow the right knee to come closer, or to touch the floor completely. This will transfer some of the rotation to the lower spine. Then bring the right knee back up and repeat for the left knee. Each knee should touch the floor five times. This exercise will teach you to get most of the swing rotation in the hips and minimize the rotation in the lower spine.

Good hip rotation will not only help prevent lower back pain, it will also help eliminate extraneous side-to-side movement in your swing, such as the “slide” or “sway” swing fault.

If these exercises don't do the trick, you may benefit from seeing a chiropractor, physical therapist or massage therapist. They can manipulate the bones and muscles to free up a restricted hip motion.

SUMMARY

Golf should be treated like any other demanding sport, and it's important to be aware of what causes most injuries:

- . Poor warm up before a round
- . Lack of proper body conditioning for the game of golf
- . Too much violence in the golf swing.

If you can implement a proper program to address these issues, low back pain can be a thing of the past, and your game will improve as well.

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SIDEBAR¹

- . The average golfer between the ages of 30 and 50 will experience a golf injury approximately every three years.
- . Golfers under age 50 have a 58% injury rate. Over 50, it escalates to 65% .
- . 30% of golfers were unable to finish a round due to illness or injury
- . 66% of golfers are overweight
- . 52% of golfers take prescription medication

¹ Golf Digest study 2006, Body Friendly Golf 2006