

essential skills

BY BEN E. BENJAMIN



GOLFER'S ELBOW

The term *golfer's elbow* is misleading, because golfers are only a small segment of the population that suffer from this injury. The muscle-tendon unit involved in this injury is the flexor carpi radialis, the structure used to flex the wrist. Bikers, construction workers, painters, pianists, tennis players, violinists, and individuals who work out using weights all get golfer's elbow fairly frequently.

It is also common in those who spend many hours a day at their computer, and is frequently a part of the complex picture referred to as repetitive stress injuries (RSI). When the injury does stem from golfing, the affected elbow is the one associated with the low grip on the golf club; the flexor carpi radialis undergoes intense resisted flexion stress as the club meets the ball.

To locate the structures affected in golfer's elbow, press one of your elbows into the side of your body, squeezing it against your ribs as hard as you can. The bony protrusion pressing into your ribs is the medial epicondyle. Golfer's elbow usually occurs right at the medial epicondyle—specifically, at the tenoperiosteal junction of the flexor carpi radialis tendon (the portion of the tendon that is attached to the periosteum, or bone covering, of the medial epicondyle). This is the area of the muscle-tendon unit where the most stress and tension are exerted. If the structure is not rested or treated after an initial strain, the injury may spread to affect the body of the tendon, the muscle belly, or the distal attachment on the anterior side of the base of the second and third metacarpal bones of the hand.

HOW AND WHY THIS INJURY OCCURS

It's often hard for clients to remember what they did that brought on golfer's elbow. It can be caused by almost any activity that uses a repeated forearm flexor motion—for example, intensive writing or typing, hammering, lifting, painting, or overdoing wrist curls at the gym—and the pain often starts up to several days after the strain occurs. Frequently, no pain is felt if the person is warmed up and involved in an athletic activity like golf or tennis.

Golfer's elbow can last a week, a month, or a year or two, depending on how well or poorly the strained fibers heal. If the person keeps repeating the activity that caused the strain, adhesive scar tissue may form and prolong the healing time. If the client cannot or does not stop the pain-causing activities, the treatment will take much longer.

Referred pain is minimal in the elbow, but if the injury worsens, the person may experience the pain as radiating from the elbow toward the wrist. In that case, what's actually happening is that the injury is spreading throughout the muscle-tendon unit. Once the tenoperiosteal junction is injured, the whole structure is weakened and more vulnerable to injury. If it is repeatedly put under stress, more and more fibers become strained. As a result, an injury that started at the tendon attachment soon spreads to the tendon body and then the muscle as it tries in vain to do its work.

Increasingly in our society, people are working longer hours, exercising less, and spending more time on their computers for fun after work is over. This causes great strain on the flexor carpi radialis muscle-tendon unit. Whenever people don't exercise to gain and maintain flexibility and strength beyond what they need for their normal daily activities, things can break down quickly. I began recently treating a woman with golfer's elbow who spends most of her day working at a computer and who hasn't exercised for four years because she is so busy. Her good arm could lift a 2-pound weight just 20

times before tiring. Her injured arm could not lift even 1 pound without discomfort. The flexibility of both wrists was limited to 75 degrees. (A healthy wrist easily moves to 90 degrees of extension and flexion.) This is a case of an injury just waiting to happen. Our goal now is to build up flexibility and enough strength in her flexors and extensors that she can easily exercise with 10 pounds with her good arm, and eventually (after six to eight weeks of treatment) with her injured arm as well.



INJURY VERIFICATION—RESISTED FLEXION OF WRIST

Ask the client to hold the injured arm out in front of the body and flex the hand down toward the floor (Image 1). Place one of your hands on top of the wrist to support it, and wrap the fingers of your other hand around the client’s palm. Now, ask the client to hold the hand in this position while you try to pull it forward and up. Hold this isometric position for a few seconds. For a person with golfer’s elbow, this action will cause pain at the medial elbow and/or into the forearm.

TREATMENT CHOICES SELF-TREATMENT

If this injury is recent, it will usually respond well to rest combined with wrist flexion exercises with light weights (which should begin a few weeks into the recovery period). For the full exercise protocol, see the exercise section below.

FRICITION THERAPY AND DEEP MASSAGE

A combination of these two treatments is generally very effective within four to six weeks. The muscle-tendon unit is easily accessible.

To perform the friction, it’s best to have the client’s elbow bent at a 90-degree angle and the forearm slightly supinated. Place the tip of your thumb at the edge of the flexor carpi radialis tendon, just inferior to and up against the edge of the medial epicondyle; this is the tenoperiosteal junction. Now press laterally against the bone to compress the tendon, and friction in a medial direction (Image 2). Continue for five or six minutes, take a break, and repeat, for a total of 10–12 minutes of frictioning. Then massage the upper arm and forearm to maximize blood circulation to the tendon.

An important caution when working in this area: the flexor carpi radialis is near the ulnar nerve. If your client feels tingling or electric sensations down the arm, that means you’ve hit the nerve and you need to shift where you’re working.

EXERCISE

Following an exercise program is an important part of recovery from golfer’s elbow. The program I’ll describe here, based on a basic protocol developed by William D. Stanish and Sandra Curwin in the 1980s, is specifically designed to support the healing of tendon injuries. I have used this program for more than 20 years and have found it to be very useful in helping clients heal more quickly and effectively. It gives clients an opportunity to take



an active part in their recovery, while strengthening the weakened muscle and tendon tissues and helping prevent the reformation of adhesive scar tissue.

This program must be done every day, seven days a week, or it may not work. It is usually done once a day at first, but should be done twice a day after about two weeks. It’s important to continue the program for six to eight weeks; it takes six times longer to strengthen a tendon than it does to strengthen a muscle. Give your client the following instructions:

1. **Warm up**
Wave your hand up and down, as if you were saying goodbye, for two to three minutes.
2. **Stretch**
Stand beside a table and rest the palm of your hand on the table with your elbow straight. Keeping the hand relaxed, apply a downward force until you feel a stretch through the forearm (Image 3). Do this five times, maintaining the stretch for 20–30 seconds each time and resting for a moment between stretches.
3. **Exercise**
Extend the injured arm in front of you, with the palm facing the ceiling, and use your other hand to support the elbow. Then, holding a 1- or 2-pound weight, curl the hand up in flexion and then slowly lower it to the starting



position (Images 4 and 5). Do three sets of 10 repetitions of this exercise, resting for a moment between sets.

Ideally, the last 10 repetitions should cause you slight fatigue, and the first 20 should not. If you feel tired before the last 10 or feel anything more than slight discomfort after finishing the exercise program, decrease the amount of weight you're using. If the last 10 repetitions do not cause any fatigue, add a pound the next day. Keep adding a pound per day until you get that tired feeling in the last set of 10, and then stick with that weight for about a week.

Do the exercise slowly for the first and second days. On the third, fourth, and fifth days, increase the speed to a moderate tempo. On the sixth and seventh days, do the exercise quickly, always sticking to three sets of 10 repetitions. There are different types of muscle tissue that respond to exercising at different speeds.



On the first day of the second week, increase the amount of weight to that which will cause slight tiredness in the last 10 repetitions (usually this involves adding 1 or 2 pounds). Of course, if you're still fatigued at your present level of weight, stay at that level a little longer. At the beginning of each new week, increase the weight again if it's appropriate. If you can, slowly build up to 10–12 pounds over six to eight weeks.

4. Stretch

Repeat the stretch five times for 20–30 seconds each time, just as in Step 2.

5. Ice or heat

Apply ice or heat to the affected area for five minutes.

A PRUDENT COURSE

Golfer's elbow is a common condition for golfers and non-golfers alike. With more and more people working on computers or playing computer games for long periods of time, it will likely become even more prevalent over time. In treating golfer's elbow, friction therapy to reduce and eliminate the adhesive scar tissue—coupled with exercises to increase the flexibility and strength of the flexor carpi radialis—have proved to be extremely effective. No matter what treatment is given, the person should be sure to limit activities, especially those that cause pain, until he or she is completely well. It is often very tempting for clients to resume



activities as soon as they begin to feel better; it's easy to lose perspective and resume exercise or work at a level that the body is not yet ready for. A slow, careful build-up of strength and flexibility is the most prudent course of action to ensure a full recovery and minimize the risk for reinjury. **m&b**

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Editor's Note: *Massage & Bodywork* is dedicated to educating readers within the scope of practice for massage therapy. Essential Skills is based on author Ben E. Benjamin's years of experience and education. The column is meant to add to readers' knowledge, not to dictate their treatment protocols.