Self-Directed Home Exercise Program

Epicondylitis – Tennis Elbow

Introduction: Epicondylitis ("tennis elbow") is a common condition generally caused by overuse or microtrauma to the tendon attached to the elbow (the epicondyle). This leads to pain and difficulty with activity. The goal of this exercise program is to improve muscle endurance and to improve resistance to repetitive loads. Generally, you should not have frank pain with any exercise. Mild discomfort is expected. Adopted from the American Academy of Orthopedic Surgeons’ Patient Education program.

Instructions: You can perform these exercises daily in 20-30 minute sessions. You should proceed through the program in sequence, progressing to the next set if the prior set was not painful. Prior to exercise, heat on the elbow at the location of pain and ice after may help. You may consider performing these exercises prior to any vigorous gripping activity such as gardening, tennis, or golf.

Stretch in Wrist Extension: Straighten your arm and bend your wrist back. Use your opposite hand to pull back your hand until you feel a stretch in the forearm. Hold for 15 seconds and repeat 5 times.

Stretch in Wrist Flexion: Straighten your arm with palm facing down and bend your wrist so your fingers point down. Gently pull your hand toward your body until you feel a stretch on the outside of your forearm. Hold for 15 seconds and repeat 5 times.

Strengthening for Wrist Extension: This is an eccentric strengthening exercise where the muscles are strengthened while lengthening. For the first part of the program when the elbow is painful, the elbow should be flexed as shown. As your strength improves you can gradually extend the elbow. Start with a 1-3lb weight with the wrist extended 90 degrees (as shown) and the forearm supported on a table. Slowly (over 3+ seconds) lower the weight down until the wrist is straight. Use the other hand to bring the weight back up to the starting position and hold the weight for a full second before lowering. Repeat for 30 repetitions.
Strengthening for Wrist Extension: This is an advanced modification of the exercise above. Notice the elbow is extended and forearm unsupported. This places more tensile load on the injured tendon and should be incorporated carefully when your pain has improved, sometimes after a couple weeks. Only progress to this if the prior exercise is not painful.

Secondary Strengthening for Wrist Flexion: This exercise strengthens the flexors of the wrist, which are not directly involved in tennis elbow but are also important to focus on secondarily. The exercises are done the same way as above, except the palm is facing up and the same resisted lowering of the weight is performed.

Forearm Pronation and Supination: This exercise strengthens the muscles that rotate the palm up (supination) and palm down (pronation). Again performed initially with 1lb and as high as 3lb weight. Start with the forearm supported on a table, wrist free from the table edge and holding weight straight vertically as shown. Slowly rotate the palm up to make the weight parallel to the floor and then slowly return to starting position. Then slowly turn the palm down until weight parallel to floor and back to starting position. This sequence is one repetition. Perform 30 repetitions in a single setting.
**Advanced Forearm Pronation and Supination:** Advanced modification of the above exercise and should only be performed if the prior exercise was nonpainful. Performed in the same manner but elbow extended and forearm unsupported as shown. If you are not ready for this modification or if pain, try the prior exercise with forearm supported on a table but the elbow only partially extended and progress to full elbow extension as tolerated.

**Grip Strengthening:** Gripping activates the muscles that are involved in tennis elbow and this exercise should only be performed without pain. If there is pain with this exercise, try focusing for a week or so on the exercises above. Grip strengthening is done with a soft rubber stress ball that has a “squish” to it and not the hardness of a baseball or tennis ball. Perform 30 repetitions, initially with the elbow bent to 90 degrees and then the elbow gradually extended as tolerated.

**Finger Abduction:** This exercise can be performed with a simple rubber band and can be performed to supplement the above exercises. Start with the fingers together in a handshake position and place the rubber band on the knuckles nearest your palm. Slowly move the fingers apart maximally to feel a stretch in the forearm and hold for one second. Return to starting position. Repeat for 30 repetitions.