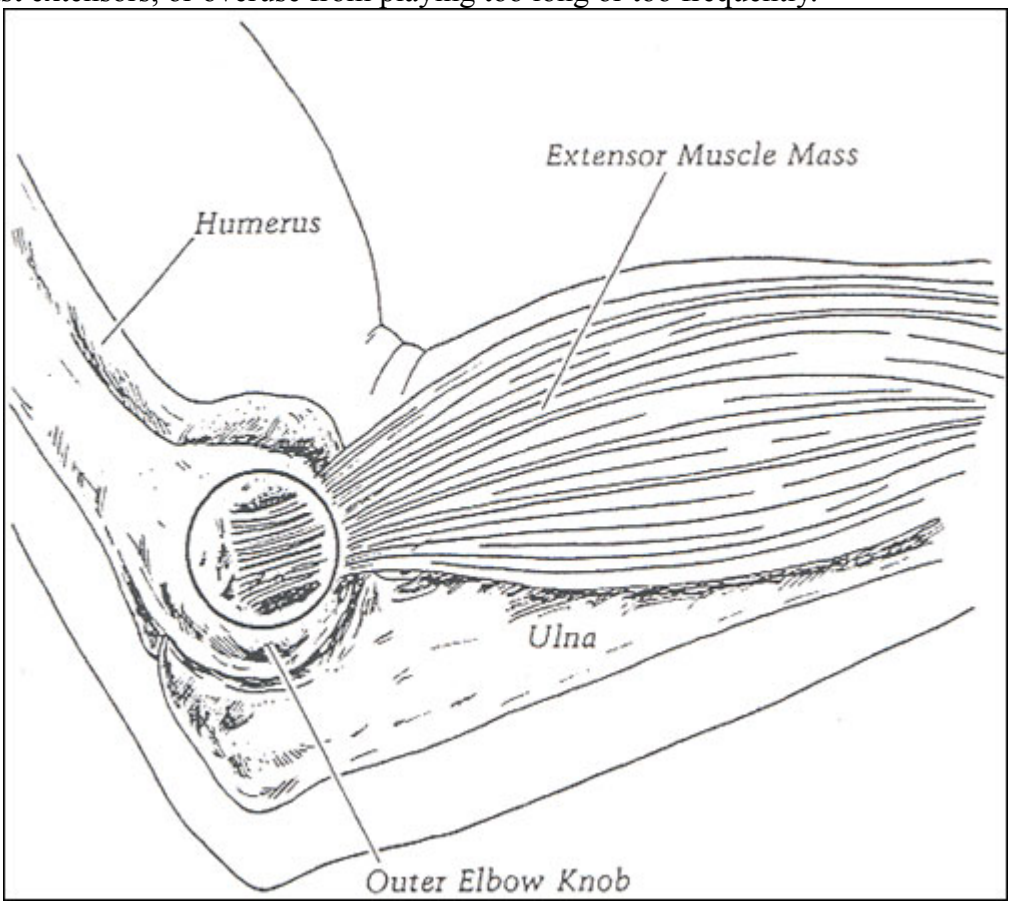
NEWTON WELLESLEY ORTHOPEDIC ASSOCIATES, INC.

LATERAL EPICONDYLITIS
(Tennis Elbow)

INTRODUCTION
Lateral epicondylitis, or tennis elbow, is a degenerative condition of the **extensor carpi radialis brevis** (**ECRB**) **tendon**. Lateral epicondylitis is typically an **overuse injury** and is not just related to playing tennis. Weakness and lack of flexibility in the muscles of the forearm predispose individuals to developing this condition, along with performing activities that cause repeated wrist extension and rotation. It is most common in individuals between the ages of 35-55 years old.

ANATOMY
The **ECRB** muscle arises from the **lateral epicondyle** of the elbow. The ECRB=s function is to extend and stabilize the wrist. Repeated wrist extension, especially against resistance, causes small tears and inflammation at the origin of the ECRB, resulting in pain. Occupations that require the use of hand tools, or that require prolonged periods of repetitive wrist motion, such as typing or using a Mouse, can cause lateral epicondylitis. Tennis players commonly experience the pain hitting a backhand stroke. Other factors which lead tennis players to develop tennis elbow are incorrect grip size or string tension, poor stroke mechanics, weak or tight wrist extensors, or overuse from playing too long or too frequently.

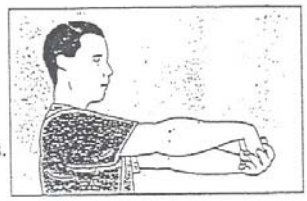


TREATMENT

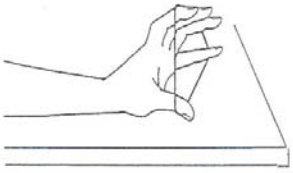
Treatment options include:

- **NSAID -** medication to decrease inflammation
- **REST** - avoid activities that exacerbate the pain. Lift with palms turned up. Drive with hands low on the steering wheel and palms turned up. Hold the phone in the other hand and type with the wrists in a neutral position.
- **ICE** - freeze water in a dixie cup and rub over the painful area for 5 minutes several times daily.
- **MASSAGE** - perform with firm pressure horizontally across the tendon to encourage blood flow and healing. Perform this 3-4 times daily and ice afterwards. If the area is too tender to touch, you may need to ice *before* you massage.
- **TENNIS ELBOW SUPPORT** - may be helpful by decreasing the amount of stress that occurs at the ERCB insertion.
- **STRETCHING/STRENGTHENING EXERCISES** - to increase flexibility and to strengthen the muscles of the forearm to prevent recurrences.
- **CORTISONE INJECTION** - may be helpful is symptoms do not improve with the above recommendations.
- **SURGERY** - performed as a last resort and needed in only 10% of cases.

Wrist Extensor Stretch
Keeping elbow straight, grasp involved hand and slowly bend wrist down until a stretch is felt. Hold for 8 seconds. Repeat 5 times.



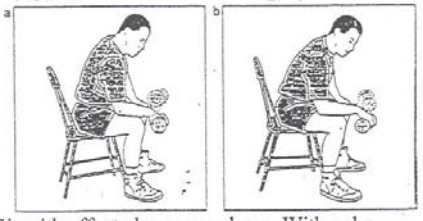
Finger Extension with Thumb Abduction — Resistive
Wrap rubber band around _____ fingers and thumb. Spread fingers and thumb apart.
Hold 10 counts.
Repeat 10 times.



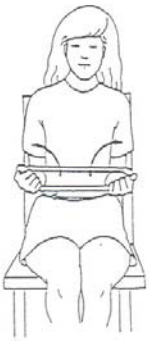
Wrist Flexion/Extension
Wring out a towel. Repeat 10 times.

Wrist Flexion and Extension
Sitting, _____ forearm on table palm up. Put one end of tubing under foot, hold other end in hand. Raise hand up. Hold 5 counts. Turn palm down. Raise hand up and hold 5 counts. Repeat 10 times in each direction.

Wrist Flexion and Extension — Active



Sit with affected arm over knee. With palm up (a), holding a 1 or 2 lb. weight, bend wrist up 10 times. Repeat with palm turned down (b), extending wrist up. Work up to 2 sets of 10 repetitions, then increase wt. by 1 lb. increments up to 5 to 7 lbs.



Forearm Supination — Resistive
Hold tubing with palms down, elbow at sides. Turn palms up.
Hold 10 counts.
Repeat 10 times.

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