

Tennis Elbow Exercises

Tennis elbow is primarily considered a **Repetitive Stress Injury (RSI)**, the first course of action is to rest the elbow so that it can begin to heal itself.

If you are suffering from tennis elbow, you should first try to identify the movement causing the inflammation. Sometimes this is simple. If you are an avid tennis player, then swinging a tennis racquet is the most likely culprit.

Think about what activities you were involved during the time that you first notices the tennis elbow pain. The most common movements leading to tennis elbow are repetitive motions and/or very strong gripping movements, squeezing objects and heavy lifting.

The rehabilitation process can be divided into 3 phases, each with different goals and objectives:

Phase 1

Immediately after the onset of pain, your focus should be dealing with the damage:

- decreasing inflammation and pain
- promote tissue healing
- minimize muscle atrophy

During this stage of the injury, called the Acute Stage. In this stage of the injury, you should follow the **R.I.C.E.** principle.

What is R.I.C.E.?

REST

Avoid all activity that aggravates the injury. It is important to maintain your activity level. Absolute rest should be avoided as it may lead to additional muscle atrophy. It also de-conditions the tissue. High activity levels contribute to an increased blood supply to the area, all of which helps the healing process. Listen to your body. Pain will be the best guide as to what is an appropriate level of activity. If it hurts, don't do it.

ICE

Icing the affected area is recommended as long as the inflammation is present. The cold temperatures help to slow down local metabolism in the elbow. Depending on the type of injury, you may want to continue icing the area for as long as inflammation is present. This may mean icing the area during the entire rehabilitation process. It may be particularly beneficial to ice the area as you return to more strenuous activity.

There are many ways that you can ice your elbow. There seems to be 2 different methods:

- ice the area with a cold pack
- ice massage

The most common way is to simply put an ice pack directly on the area. You can fill a ziploc bag with ice and just put that on the area, or you can use a gel cold pack. You can buy these in many drug stores. It may be a good idea to wrap the ice pack in a light cloth so you don't freeze your skin. It can happen, so you have been warned.

My preferred way is an **ice massage**. The way we used to do this is to freeze water in a styrofoam cup. You then tear enough of the cup off so that you can massage the affected area with the ice. As the ice melts, you tear off more of the cup.

Since you will need to ice your arm often, I prefer to use a CryoCup instead of a styrofoam cup. It's recycleable and less messy than styrofoam. The CryoCup is a 2 part plastic cup. You join the 2 parts, fill with water and freeze. After frozen, you simply run the cup end under warm water and the plastic slides off leaving a comfortably warm plastic handle with which to massage you arm.

Ice massage is great because it:

- massages the area while minimizing swelling
- doesn't feel as 'cold' as a cold pack, I think this is because it's moving.
- No more cold fingers!

Simply rub the area with the frozen ice for 15 minutes. It's probably a good idea to do this even if you are not feeling any pain. The ice should reduce inflammation in the area. The less inflammation, the faster your body will be able to begin healing.

When you ice massage, you may want to place an absorbent towel in your lap because the melted ice will drip.

COMPRESS

Compression helps limit swelling, which slows down healing. Some people may notice pain relief from compression as well. A common and easy way to compress the area of the injury is to wrap an ACE bandage over it. If you feel throbbing, or if the wrap just feels too tight, remove the bandage and re-wrap the area so the bandage is a little looser. Cutting off the circulation to your lower arm would be a bad thing.

ELEVATE

We want to keep the swelling as light as possible. Fortunately, we have 2 powerful tools, compression and elevation. Compression works by minimizing the volume. Elevation takes advantage of the natural forces of gravity to assist venous return of the fluid causing the swelling. This is fancy way of saying that the gravity makes the blood run down the arm versus pooling in the swollen area. This helps to keep the swelling to lower levels. Less swelling means less secondary trauma to the area.

Phase 2

After the elbow has healed, you want to begin working to increase strength and endurance in the muscles, tendons and ligaments. You will also begin to gradually return to functional activities and return to normal function.

- **Stretching**
 1. Focus on the gentle stretching exercises. You should work on increasing the range of motion during wrist flexion, wrist extension and wrist rotation.

2. Make certain that the elbow is extended and the arm is straight. Keeping the arm straight increase the range of the stretch.
3. Hold each stretch for 20 - 30 seconds
4. Focus on feeling the muscles gradually relax into the stretch.
5. Repeat at least twice a day.
6. Stretch only to the point of comfortable motion.
7. **REMEMBER** you want to help the area, NOT re-injure it.

Stretch 1 - Forearm Flexors



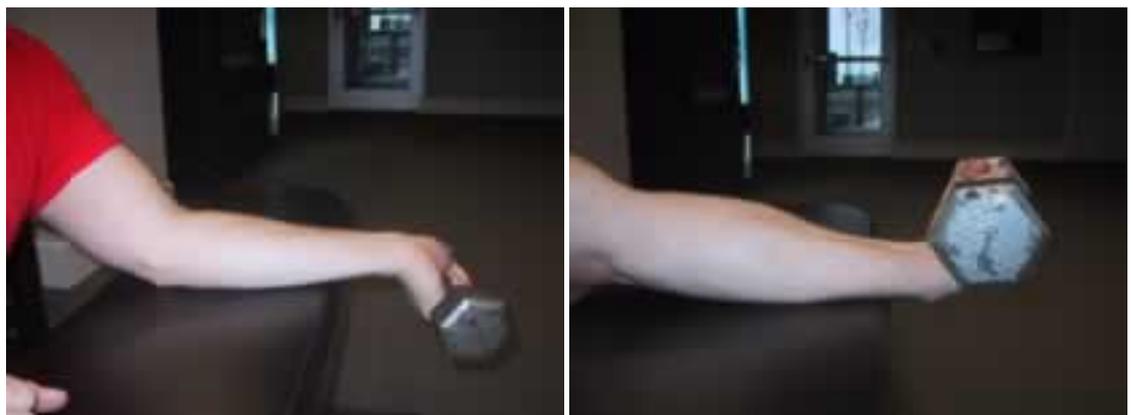
Stretch 2 - Forearm Extensors



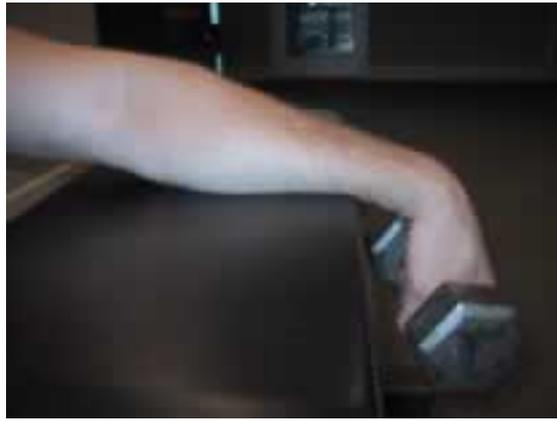
- **Strengthening**

- Perform the following exercises with the wrist supported and the elbow bent.

1. Wrist Flexion



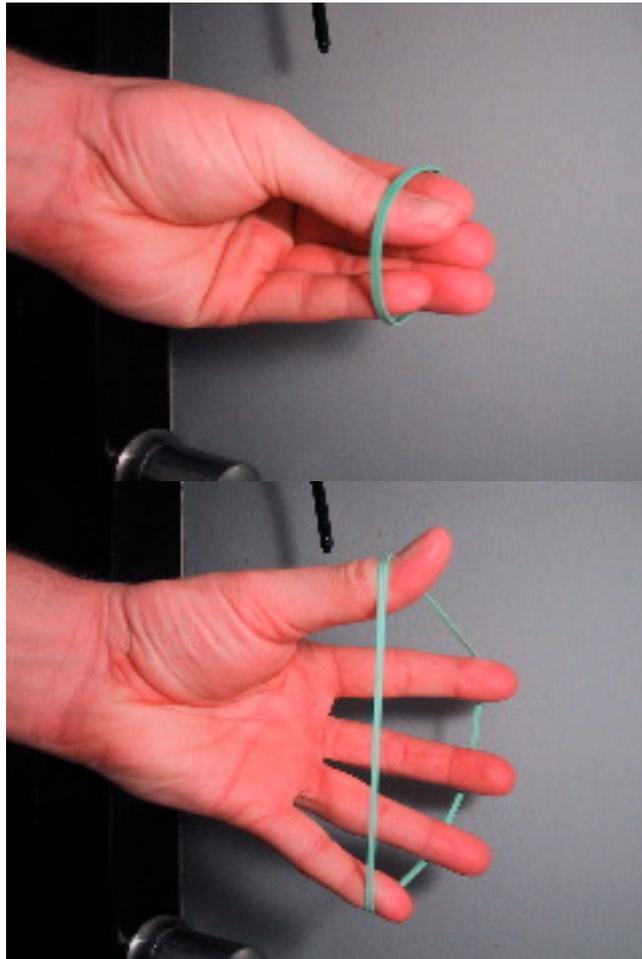
2. Wrist Extension



3. Forearm Pronation / Supination



4. Finger Extension with Rubber band



5. Ball Squeeze

Gradually increase the amount of work that you are doing. Make sure to begin with a very lightweight. Ideally, you should begin with a 1-pound dumbbell. Begin with perform 10 movements in a row. Repeat this sequence 3 times. This is called doing 3 sets of 10 repetitions. With time, this movement will become easier, then you can increase the number of repetitions to 15. Increase the weight when you can easily do 15 repetitions for 3 sets. Remember, you want to work the muscles and ligaments only as long as the movement is comfortable.

Phase 3

After your pain symptoms have disappeared and you have full range of pain free movement of your arm, you are now ready to begin more sport specific rehabilitation. While Phase 2 focuses on gradually increasing the work capacity of the elbow. Phase 3 begins gradually incorporating the movements of your sport or activity. In many cases, you are now returning to the activity that created the injury. It is very important to gradually work up to prior activity levels. Make sure that you are using a [heavy, head light tennis racquet](#). Some of the new racquets are head heavy and can really damage the elbow.

It is very common for people to reinjure themselves at this stage by subjecting themselves far too much strain before the tendons have fully healed.

During Phase 3, continue stretching and strengthening exercise from Phase 2.

Below, we have created an example of how a tennis player with lateral epicondylitis should progress back to high activity levels. Most commonly, a tennis player will develop tennis elbow in their dominant arm. This progression takes that into account.

Work Load

Progression

Week 1	15 minutes forehand only
Week 2	30 minutes forehand only
Week 3	30 minutes forehand and two handed backhand
Week 4	45 minutes forehand and backhand
Week 5	45 minutes all strokes
Week 6	Begin Incorporating Serves
Week 7	Full play
Week 8	Competitive play