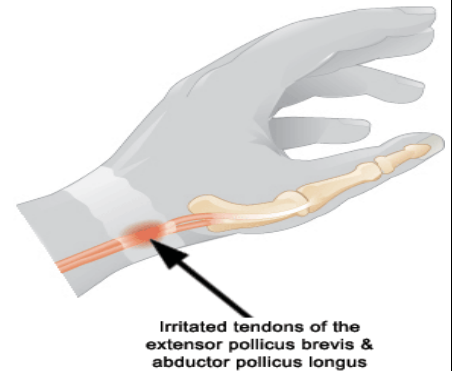


# Radial Tunnel Program

**Compression of the Radial Nerve may occur with DeQuervain's Tenosynovitis. To help reduce the pain and burning sensation along the back of the thumb and wrist, it is important to do activities which bring oxygen to the tissues.**

**There are many things you can do to help reduce the symptoms. These are a few of the ways that have proven to be helpful to others, short of surgery. If you have questions about these exercises and you have not been to therapy, it is suggested you get a referral from your doctor.**

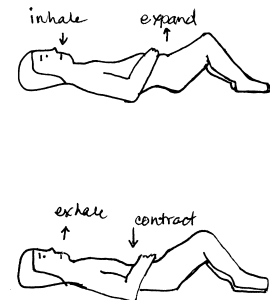
De Quervain's Tenosynovitis



1. **Walk one hour a day**, or do some other cardio-vascular activity that will increase your heart rate above what your normal daily activities provide (swim, dance). This enhances your circulation. Work up to the hour over 2-3 weeks if this is not part of your daily routine. Check with your MD if there is any question about your ability to do this.

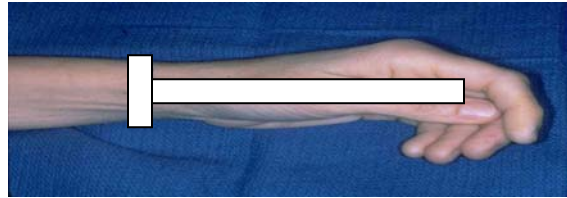
2. **Drink 8 glasses of water/fluid daily** – no coffee, tea or soda as these have caffeine and sodium which tend to dehydrate the body. Herbal tea is OK. The water helps to flush your system and add oxygen. Drink a glass of water if you wake up in the middle of the night with numb or burning hands.

3. **Diaphragmatically breathe for 10 minutes, twice daily.** This involves lying on your back, knees bent, and hands resting on stomach. As you breathe in, you want your hands and stomach to lift up; as you breathe out, your stomach should pull in. This is a slow rhythmical process, not rushed. Eventually, you can do this in a seated or standing position. Circulation is aided by this activity. Stress can also be reduced with this exercise.

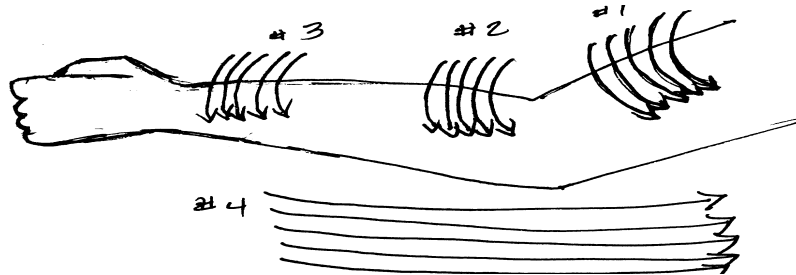


4. **Sometimes vitamins and herbs can help.** Check with your MD about vitamin B6 and Flaxseed oil capsules. Some people have found relief with these additives. Be careful with the additives however, as vitamin B6 is stored in tissues and can become toxic with extended use.

5. **Resting position** is with the hands resting in the lap, palm up. Kinesiotape or Balance Tex Tape is available through Amazon.com for about \$12 per roll. You may place it along the thumb extensors and around wrist; this has proven helpful with the tenosynovitis portion of the injury. Watch for rash, remove if itchy. The tape normally lasts for 3-5 days, just pat dry after washing hands.



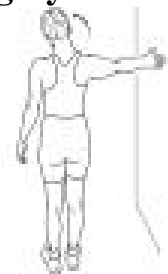
6. **Manual Edema Mobilization or Horseshoes and Sweeps**, stimulate the lymphatic system so that tissues can heal. **If you have active cancer, you should most likely avoid this exercise.** You begin by placing one full hand, not just the fingers, gently across the front of the upper arm and moving it in a horseshoe pattern 5 times. You then move your hand approximately 4 inches down the arm and repeat the same thing, and do this once more at the wrist. Next, you sweep your hand gently up your arm. This should be done twice daily for 5 minutes.



7. **Moist heat or ice** along the painful area is often helpful. The ice is best initially to prevent swelling. Heat is useful prior to stretching and aids in circulation.

8. **Nerve glides are also important; however, do not do these after surgery.**

Stand tall in good posture with shoulders relaxed. Hold the affected arm by your side with the palm facing backward. The wrist is bent back (wrist flexed). You can leave the wrist straight if this causes pain. Slowly raise your arm up with the elbow straight and shoulder remaining relaxed. Stop when you begin to feel an increase of tingling. Lower your arm about 20 degrees. Slowly side bend your head to the opposite side 3 times, keeping your shoulder relaxed. Do this nerve glide, 2 times a day.



9. **Throughout the day you should do stretches.** If you are at work on a computer or in the same position for extended periods of time, you should stretch for 5-10 seconds every 15 minutes. Your stretches should be in the opposite pattern of you work position. Remember, no sharp pains should occur with stretching and what you do to one side of the body you will need to repeat on the opposite side. Initially, you may need a time to help you develop the 15 minute habit. Be sure to stretch thumb fully in all directions stopping short of sharp pain.



Figure 9.



Figure 10.



Figure 11.



Figure 12.



Figure 13.



Figure 14.



**New stretch:  
extend thumb  
back, then rock  
wrist and fingers  
downward**

10. **A thumb spica splint should be worn 23 hours/day for the first 3 wks of the injury.** The splint should be removed twice daily to let the thumb pull down to the base of the small finger for a good stretch. After 3 wks of wearing the splint, it can be gradually weaned. Many drugstores carry these or can be ordered from [www.beabletodo.com](http://www.beabletodo.com), or upstairs in the Ortho store..



11. **Body Mechanics are important.** A work site evaluation may be done if the injury is work related. Radial tunnel syndrome is aggravated by activities that are repetitive, forceful, vibratory, or torsional/twisting in nature. Bending any joint (neck, shoulder, elbow, and wrist) beyond neutral position for extended periods of time will impact the nerve and cause compression. Tuck your thumbs to side of palm when lifting, as with a baby; use a scooping motion to secure what you are lifting. These are positions to **avoid**:



Avoid bending the wrist towards the small finger



Avoid bending wrist with keyboard use



Avoid bending elbows past 90°



Avoid lifting baby with thumb- hook position

12. **If you sleep on your side, support your free arm on your side and thigh so that you are not compressing your shoulder onto the nerves.** You can also use a couple of pillows in front of you and pull your elbow forward onto the pillows if hooking the elbow over your waist is uncomfortable. This will help prevent compression of the nerves high up in your arm and shoulder.



**Once you have radial tunnel problems, they often can reoccur. Recognizing the cause of the injury can be the most important part of recovery. Avoiding those tasks which cause the pain and finding a different way to do them is the trick. Therapy can sometimes help, although if it does not help, you should see Orthopedics concerning surgical interventions so that muscle damage does not occur.**

Revised Cathy Noble, 11/09