MD PHYSIOTHERAPY SERVICES

YOUR GUIDE TO

DE QUERVAIN'S TENOSYNOVITIS

Contents

Introduction

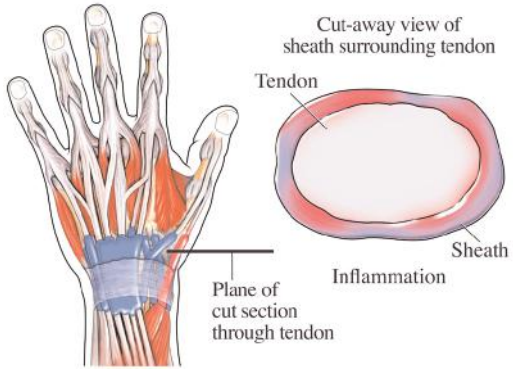
Please take note of the following before starting any of the exercises in this guide:

- The information contained in this guide is intended to assist in managing your recovery.
- This guide is based on the latest medical research in the field and contains the best advice available to the best of our knowledge.
- This guide is complimentary to other medical services and is not intended as a substitute for a health care provider's consultation. Never disregard medical advice or delay in seeking advice because of something you have read this guide.
- Many people have found quick and lasting relief from their de Quervain's tenosynovitis by acting upon the information provided, but everyone decides for themselves what to do with this information. Should you doubt a particular exercise in your situation, please consult your health professional.

When consulting your health professional, it is wise to take this guide with you to show them.

What is tendonitis and tenosynovitis?

A tendon is a strong band of tissue that attaches a muscle to a bone and is capable of withstanding high levels of force. When damage occurs to the tendon resulting in inflammation, the term used to describe the condition is tendonitis.
Some (but not all) tendons are covered by a sheath called the synovium. The synovium releases a small amount of fluid that lies between the tendon and its overlying sheath. The fluid helps the tendon move smoothly when it pulls on the bone it is attached to. When this sheath becomes inflamed, the term used to describe the condition is tenosynovitis.
These two conditions often occur together.



What is de Quervain's Tenosynovitis?

de Quervains Tenosynovitis is a common condition that causes pain on the inside of the wrist just below the thumb. This condition affects the tendons of two of the muscles which attach to the thumb namely; abductor pollicus longus (APL) and extensor pollicus brevis (EPB). These two tendons sit next to each other as they run along the thumb side of the forearm and normally pass unaffected through a small tunnel at the end of the radius (forearm bone). The tendons are surrounded by a common synovial sheath which helps them slide easily with movement. Due to the restricted space of the tunnel, when the sheath becomes inflamed as in de Quervain's tenosynovitis, movement of these tendons is restricted causing pain and discomfort, especially with extention (straightening) of the thumb.

WHAT CAUSES DE QUERVAIN'S TENOSYNOVITIS?

- The cause is **largely unknown** and many cases seem to occur for no apparent reason.
- **Overuse of the tendons** is however the most common known cause. This happens particularly with overuse of the action of the thumb or wrist such as repeatedly lifting an unaccustomed weight or over extending the thumb in a "hitch hikers" action.
- **Arthritis** can sometimes include inflammation of tendon sheaths as well as the joints, but you would normally have joint pains and swelling in addition to tendon problems.
- **Infection** is also a rare cause. The infection may occur because a cut or puncture wound to the skin over the tendon has allowed bacteria to get in to infect the tendon and/or tendon sheath. However, infection may also spread from other parts of the body via the bloodstream to infect a tendon sheath.

WHAT ARE THE SYMPTOMS?

The typical early symptom is pain over the wrist at the base of the thumb that is made worse by activity and eased by rest.
Other usual symptoms include:

- Pain in the forearm and /or wrist
- Pain on sideways movement of the wrist or up and down movement at the thumb
- Weakness of grip
- Swelling locally over the thumb side of the wrist
- Changes in sensation down the forearm or into the hand including pain and/or pins and needles and/or numbness

HOW IS IT DIAGNOSED?

Usually de Quervain's tenosynovitis can be diagnosed by a full examination from a doctor or allied health professional. If the cause is thought to be from infection, blood tests and other tests may be required to identify the cause of the infection if unknown.

What treatment can I receive?

- **Rest:** It is important to allow the inflammation to settle. Sometimes a splint, firm bandage or brace is put on the wrist. This enforces the hands and wrist to stay in the same position for a time to allow rest of the affected tendon.
- **Ice:** Ice packs over the affected area will help to speed up the recovery process by reducing the inflammation and can also reduce pain. Always read the precautions listed below before using ice therapy.
- **Anti-inflammatory medications:** These are often prescribed (for example, ibuprofen) to reduce pain and inflammation.
- **Physiotherapy:** This may be advised, especially if the condition is not settling with the above measures. The physiotherapist will perform a full assessment of your wrist and provide you with the appropriate treatment for the cause of your symptoms. They may also use other treatment techniques such as; deep massage, electrotherapy and acupuncture to facilitate the healing process and help you to return to full functional activities as soon as possible.
- **A steroid injection** into the site of inflammation may be given if the above measures do not work. Steroids work by reducing inflammation and are usually effective, but can have other side effects and will therefore be prescribed and administered by your Doctor.
- **Surgical release** of a tendon/sheath is rarely needed.
- **Antibiotics** are needed in the uncommon situation where infection is the cause.

PRECAUTIONS WHEN USING ICE THERAPY.

- **Ice treatment must be used carefully otherwise it may cause a skin burn.**
- **Never put an ice pack directly onto the skin, always use a damp towel or cloth to prevent an ice burn.**
- **Only apply an ice pack to areas of skin with normal sensation i.e. you must be able to feel hot and cold.**
- **Never put an ice pack over an open wound or graze.**
- **Do not apply an ice pack to an area with poor circulation.**
- **Never leave an ice pack on the skin longer than the time stated in this advice sheet.**
- **Adults should always supervise young children when using ice packs. Application may be reduced and extra care should be taken when checking the skin.**
- **Remember to check the skin underneath every 5 minutes for:**
  - Whiteness of the skin
  - Blueness of the skin
  - Blotchy and painful skin
  - Excessive numbness
- **If you get any of these symptoms remove the ice pack immediately.**

What can I do to prevent de Quervain's tenosynovitis?

There is no proof that anything can prevent a bout of tenosynovitis or tendonitis. However, the following are sensible suggestions that may help to prevent a recurrence.

- **Avoid repetitive motion and overuse of the affected area.** This may be very difficult if your job involves repetitive movements. If it is a recurring problem then you should discuss this with your employer as a change of duties may help.
- **Exercises to strengthen the muscles around the affected tendon can also help.** It may be best to seek advice from a physiotherapist to find the best exercises to use.

What exercises should I do?

INSTRUCTIONS

- Keep all exercises in your pain free limits. **Trying to work in painful ranges will only prolong your recovery.**
- If you experience pain during any of the exercises, decrease the intensity of the exercises by:
  - decreasing the number of sets
  - decreasing the number of repetitions
  - decreasing the range of movement
  - decreasing the resistance
- Do all exercises slowly and breathe normally.
- Progress gradually according to your own level of comfort.
- Following exercise, stiffness or fatigue may result but should not last longer than 24 hrs. The symptoms of your injury should not be aggravated.

Exercises phase 1

MOBILITY EXERCISES

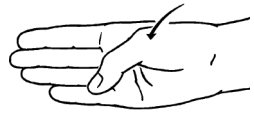
- **Perform each exercise 10 times aim to repeat this 4-5 times a day.**
- **These exercises should not make your pain worse. They should be undertaken within a pain-free range.**

PASSIVE ROM THUMB DIP JOINT

Using the other hand, passively bend thumb at the knuckle as shown until a stretch is felt. Hold 15 seconds. Relax. Then straighten thumb out as far as you can.

PASSIVE ROM THUMB PIP JOINT

Using other hand, passively bend thumb at knuckle as shown until a stretch is felt. Hold 15 seconds. Relax. Then straighten thumb out as far as you can.



THUMB FLEXION / EXTENSION

Actively bend thumb across palm as far as you can. Hold 15 seconds. Relax. Then pull thumb back into “hitch hiking” position.

THUMB ABDUCTION / ADDUCTION

Actively bend thumb out away from palm as far as you can. Hold 15 seconds. Then pull thumb back to touch fingers. Try not to bend fingers toward thumb.

FINGER OPPOSITION

Actively touch thumb to finger tip. Starting with index finger and proceed toward little finger. Move slowly at first, then begin to move rapidly as your motion and co-ordination improve. Be sure to touch each finger tip.

Exercises phase 2

Phase 2 exercises can be started when you are able to do all the Mobility exercises in **Phase 1** with no adverse effects.

STRENGTHENING EXERCISES

- **You should be aiming to hold these contractions for 10 seconds. If you can only manage 5 seconds to begin with that's fine, aim to build it up to 10 slowly.**
- **Repeat each exercise 10 times, again aiming to do this 4-5 times a day.**

STATIC RADIAL DEVIATION

With involved forearm resting on thigh with thumb up, resist upward movement of hand with other hand.

STATIC THUMB EXTENSION

Hand closed with thumb at rest in mid extended position. Apply gentle resistance with index and middle fingers. Do not allow thumb to move.

STATIC THUMB FLEXION

Hand open with thumb at rest in mid extended position. Apply gentle resistance with index and middle fingers. Do not allow thumb to move.

TOWEL ROLL SQUEEZE

With forearm resting on surface, gently squeeze towel. This exercise can also be performed with a rubber ball or tennis ball to increase the resistance

Contact us

This guide is designed to assist you in the self-management of your injury/condition.

We are here to assist your recovery in the shortest but safest possible time. If you have any uncertainties or queries regarding the information, please do not hesitate to contact us on:

Phone 017890400999 / 07870166861
www.mdphysiotherapy.co.uk