

De Quervain's Tenosynovitis

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Condition

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Definition

De Quervain's tenosynovitis is an inflammation of the tendons located at the base of the thumb, near the wrist. These tendons pass through a rigid tunnel, and when they become inflamed, movements of the thumb and wrist become painful. Activities such as making a fist, holding an object, carrying loads, and driving are particularly painful.

Causes

This tendinitis is caused by irritation of the tendons at the base of the thumb, often due to repetitive movements of the wrist and thumb. Hormonal changes related to pregnancy and postpartum also increase the risk. New mothers are particularly exposed, as holding a child places the hand and thumb in a prolonged extension. A wrist fracture can also provoke this tendinitis, as the tendons can rub against the fracture site.

Signs and Symptoms

The main symptom is pain on the outer edge of the wrist, at the base of the thumb. This pain can appear gradually or suddenly and may extend towards the thumb and forearm. Movements of the thumb and wrist increase the pain, especially when making a fist or gripping objects. There may be swelling at the site of the pain, which can become inflammatory during painful flare-ups. Sometimes, you can hear crepitus (a crackling sound) during thumb movements.

Movements involving pinching between the thumb and index finger are also painful. Irritation of the nerve running over the tendon sheath can cause tingling on the back of the thumb and index finger.

Diagnosis

A painful swelling on the outer edge of the wrist, at the base of the thumb, is a clear sign of this condition. To confirm the diagnosis, the doctor may ask the patient to make a fist with the thumb inside and bend the wrist towards the little finger. If this maneuver, namely Finkelstein test, reproduces the pain, it is likely de Quervain's tenosynovitis. An ultrasound may be performed to confirm the diagnosis.

Treatment

The goal of treatment is to eliminate the pain caused by inflammation. The doctor may recommend resting the thumb and wrist with a brace. Analgesic and anti-inflammatory medications may be prescribed to improve the situation. Corticosteroid injections can also be administered to relieve pain. It is also important to identify and avoid repetitive activities that cause the pain.

If the symptoms are severe or persist despite treatment, surgical intervention may be necessary.

Dr. Bernard Lallemand will guide you through the best treatment options tailored to your specific case.

Surgery

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Indications

Surgery for de Quervain's tenosynovitis is recommended when medical treatments are no longer effective.

Surgery Procedure

The operation to treat de Quervain's tenosynovitis is a day case procedure, which means you can go home the same day. It is usually performed under local or regional anesthesia, so only the area being operated on will be numb.

Once the anesthesia is in place and the area is disinfected, the surgeon will make a small incision of about 1.5 to 2 cm, usually transversely. This incision allows access to the inflamed tendons in the wrist. The surgeon will then free the tendons by opening the compartments surrounding them to relieve inflammation and pain. He will also ensure the release of the sensory branch of the radial nerve to prevent nerve pain. This procedure is done under direct vision, using magnifying surgical loupes for enhanced precision.

At the end of the operation, the surgeon will close the skin with internal stitches to minimize visible scars.

A complementary anaesthetic will be given at the end of the procedure with Ropivacaine to keep the operated area numb for 12 to 24 hours, allowing better management of post-operative pain.

A dressing and padded bandage will be applied upon leaving the operating room

After the Surgery

You don't need to immobilize your thumb, and you will be able to move it quickly to prevent the tendons from sticking together or to the skin. This helps in better recovery and prevention of adhesions.

Risks

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What Are the Main Risks of This Operation?

Swelling, Stiffness, & Scar Pain

After the operation, you might experience swelling, stiffness, and pain around the scar. Keeping your arm elevated and moving your fingers as soon as possible can help reduce these symptoms. Local swelling around the surgical site can last for several months.

In rare cases, some patients may experience more swelling and stiffness than usual, sometimes due to complex regional pain syndrome (CRPS), which affects less than 1% of cases.

Infection

Infections after this operation are rare (less than 1% of cases).

Local wound infections can usually be treated with oral antibiotics. In rare instances, deeper infections may occur, requiring hospital readmission, intravenous antibiotics, and sometimes additional surgery.

Nerve Injury

The branches of the superficial radial nerve, which supply sensation to the back of the thumb and index finger, are at risk during this operation.

It is common to experience tingling in the area supplied by these nerve branches after the operation. Occasionally, you may be left with a permanent patch of altered sensation, but this should not affect the function of your hand and thumb.

Tendon Subluxation

The strap that is divided during the operation normally supports the thumb tendons on the side of the forearm

bone (distal radius).

Sometimes, the tendons may slip out of the strap and move to the front side of the bone with a little click. This can be slightly irritating but is not usually uncomfortable.

Residual Symptoms

If the tendons have been damaged by rubbing under the tight strap for a long time, you may experience residual symptoms. Once the strap is divided, the tendons usually recover gradually.

If there was noticeable swelling of the strap before the operation, it may still be present afterward, as the entire strap is not removed during the surgery.

Occasionally, a small section of the strap may be missed during the operation, which can cause some symptoms to persist. In such cases, further surgery might be required.

By understanding these potential risks, you can be better prepared for the recovery process. Always follow Dr Bernard Lallemand's advice and report any unusual symptoms immediately.

Preoperative course

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Medical Check-Up and Tests

Health History: Share your medical conditions, allergies and past surgeries.

Medications: Inform your doctor about all medications, especially blood thinners.

Tests: Ensure to bring all tests, such as X-rays, MRI or CT scans.

Understanding your Surgery

- **Know the Purpose** of the surgery and what it aims to achieve.
- **Ask your doctor** about the steps, risks, benefits, and alternatives.
- **Give your informed Consent** after understanding the procedure.

Pre-Anesthesia Consultation (PAC)

You will meet with the anesthetist to discuss your health and the anesthesia options.

If you have any existing health issues, additional checks may be required to ensure everything is safe for the anesthesia.

Emotional and Practical Preparation

- Arrange for someone to assist you after surgery.
- If you're anxious, discuss support options

with your doctor.

- Also, stop smoking and limit alcohol intake before surgery to support healing.

2 Days before Surgery

Wash the Surgery Site area twice a day with regular soap (unless you have a cast) and follow any additional instructions from your doctor for cleaning the area.

Night before Surgery

You should **not eat nor drink anything** after **midnight** or generally **6 to 8 hours before surgery** unless your doctor advises otherwise.

Take a bath or shower, wash your hair, and ensure your nails are clean and free of polish.

Day of the Surgery

Be sure to arrive **3 hours in advance** for your surgery, and bring your ID (Emirates ID or passport) and insurance card

- **Wear loose clothing** that can easily fit over dressings or a cast
- **No Makeup or Jewelry:** Remove all jewelry, piercings, and skip eye makeup for the day.
- **Take Your Medications:** Follow your doctor's instructions for taking your medications.
- **Bring Essentials:** If you wear glasses, contact lenses, or hearing aids, make sure to bring them along.

Postoperative course

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Day of the Surgery

- After the operation, a dressing and padded bandage will be applied.
- Keep these dressings clean and dry.
- To reduce swelling, keep your arm elevated in a sling or on pillows.
- Start moving all the unaffected joints immediately after the operation to prevent stiffness.
- Take painkillers before the anesthetic wears off and continue as necessary.

Day 2 - 14

The padded bandage will be changed in consultation by a nurse and will be replaced by a sticking plaster over the wound to protect it. Ensure the wound stays clean and dry.

This bandage will be changed regularly according to Dr Bernard Lallemand's advice.

A removable splint will be provided if needed.

Continue gently exercising your hand and wrist. You can use your hand for light activities, but avoid heavy lifting and prolonged periods with your hand hanging down below your waist.

2 - 6 Weeks

A wound check and removal of the stitches should occur between 10 and 14 days after your surgery. The details will be arranged on the day of your first visit.

Gradually increase activities with your hand and wrist as comfort allows.

Once the wound is completely healed, a daily session of 10 minutes massaging the scar with moisturized hand cream is often useful to reduce swelling of the scar.

After 6 Weeks

Most people return to normal activities by this stage, although scar massage may still be beneficial.

Driving

You may drive when you feel confident to control the car, even in an emergency.

Time Off Work

The amount of time needed off work will vary depending on the nature of your job. For light office Job, you may only need a few days off work. For heavier Job, you may need a longer period off work. Discuss your individual case with your surgeon.

Post Operative Difficulties

Contact Dr Bernard Lallemand's service if your fingers are more swollen, stiffer or painful than expected, and if you see any discharge, wetness, or detect any unpleasant odours under your dressing.

Outside normal working hours, you may need to attend Emergency Department for help with these issues.

Postoperative physiotherapy

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Immediate Postoperative Period (Day 0–Week 2)

- Dressings: Keep wound clean and dry; change dressings as instructed by the surgeon
- Pain Management: Use prescribed analgesics and elevate the hand to reduce swelling.
- A removable splint will be provided.
- Mobility Exercises: Begin gentle active range of motion (AROM) exercises of the fingers.

Early Rehabilitation (Week 2–Week 6)

Wound Care: Stitches removed (if nonabsorbable); monitor for signs of infection.

Initial Evaluation: A physiotherapist will perform an initial assessment to check the hand and wrist.

Therapy Focus:

- Gentle active and passive range of motion (AROM/PROM) of the fingers.
- Scar management techniques (e.g., massage, silicone gel sheets).
- Edema control through compression or elevation.
- Gradually introduce light functional tasks to improve hand use.

Strengthening and Functional Recovery (Week 6–Week 12)

Therapy Focus:

- Progressive strengthening exercises, including grip and pinch training.

- Advanced scar desensitization if tenderness persists

Functional Goals: Encourage participation in daily activities requiring hand dexterity.

Long-Term Maintenance (Week 12 and Beyond)

Home Program: Continue with daily exercises for strength and flexibility.

Follow-Up: Regular check-up with the surgeon and therapist to monitor recovery and address recurrence.

Lifestyle Modifications: Avoid repetitive hand trauma or stress that may contribute to recurrence.

Most patients transition through therapy without complications and typically require 6 - 10 therapy visits. Always follow your physiotherapist's instructions for the best recovery