Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

Rehabilitation following zones 3 – 5 flexor tendon repair

Version number: **1**
Last modified date: **12th November 2026**

Rehabilitation Following Zones 3 – 5 Flexor Tendon Repair

Patient Information

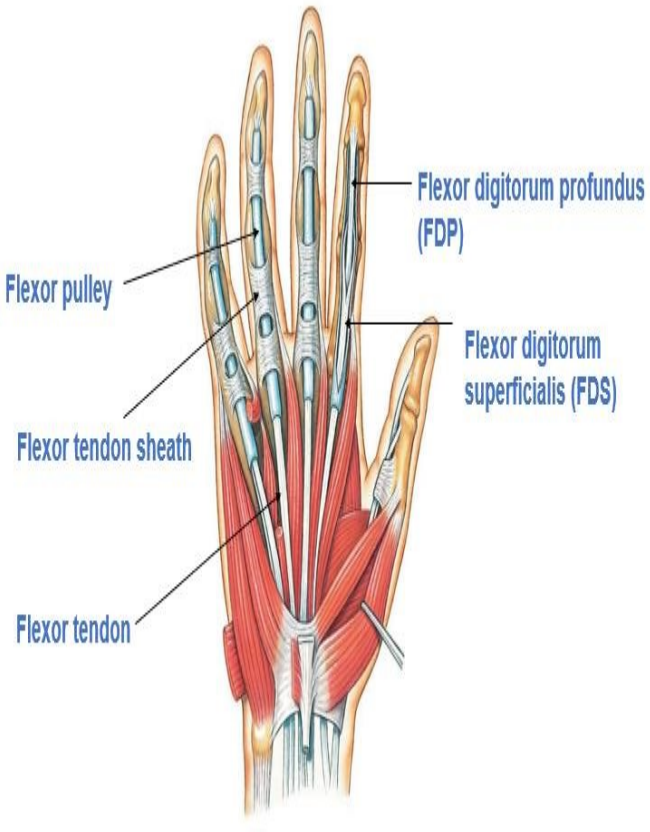
Therapy Department

- Author ID: JH
- Leaflet ref: Tpy 079
- Version: 1
- Leaflet title: Rehabilitation Following Zones 3-5 Flexor Tendon Repair
- Last review: March 2024
- Expiry date: March 2026

Introduction

Your therapist has provided you with this leaflet to help you better understand your surgery and the rehabilitation process. You will be guided by your therapist. Do not perform anything included in the leaflet unless permitted to do so by your therapist. Below is some information on your surgery and what you can expect from rehabilitation.

What is your flexor tendon and why do they require repair?



Your **flexor tendon** is a strong fibrous tissue which connects the muscles of the forearm to the bones in your fingers. You have two tendons to each finger. One is called your **flexor digitorum superficialis (FDS)** tendon which connects to the middle bone of your finger. The other tendon is called the **flexor digitorum profundus (FDP)** which connects to the end bone of your finger. When you use the muscles in your forearm, they pull on these tendons to help bend your fingers to make a fist.

Within your hand, there are structures called **pulleys** that help guide your flexor tendons as they move. These pulleys are like little tunnels that keep your tendons close to the bone and prevent them from popping out of place when you bend your fingers. Additionally, your tendon is encased in a protective covering called a **sheath**. This sheath contains a slippery fluid called synovial fluid, which acts as a lubricant to reduce friction, and allows smooth movement of your tendons within your hand.

When your flexor tendon is ruptured or cut due to injury or trauma, it needs to be repaired. Without surgical repair, your tendon will not heal, leading to limited ability to bend your finger, weak grip, and potential long-term problems. Surgical repair will re-join the torn ends of the tendon, facilitating healing and restoring hand function. Rehabilitation following your repair is essential to ensure a successful recovery and to regain the function in your hand.

Frequently asked questions

Q. How often will I need to attend therapy?

A. Initially, usually once a week for 6 weeks. Then usually a few more sessions are needed which can be spaced further apart. You can discuss this with your therapist.

Q. How long does it take for my tendon to heal?

A. It takes 12 weeks for your tendon to fully heal. During that time, you need to protect the tendon repair by preventing overstretching the tendon or overusing the tendon. You must avoid gripping or grasping with the affected finger for the first 6 weeks. You will not be able to grip strongly for 12 weeks.

Q. Can I work?

A. This depends on your job and the physical demands; this will be discussed with your therapist.

Q. When can I drive?

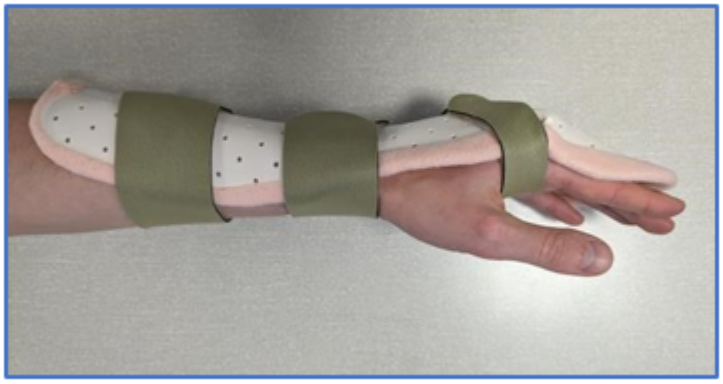
A. 8-10 weeks if you have sufficient movement and strength in your hand.

Wearing a splint and why?

On your first visit to hand therapy following your operation, you will have a plastic splint made for you (see picture below), which you will wear for up to 6 weeks post-operatively.

The splint is worn to protect your repaired tendon(s) while they are healing. During the first 6 weeks following your surgery, the tendon repair is weak and vulnerable to re-injury, and therefore, you must wear the splint all the time, day and night. The splint is designed to prevent you from straightening your fingers beyond what the splint will allow. Removing the splint and straightening the fingers increases the risk of rupturing (breaking) your tendon repair.

After 10–14 days post-operatively, or when your wound has fully healed, you will be shown how to carefully wash your hand and how to use a non-perfumed hand cream for scar care. Do not remove your splint unless instructed to do so by your therapist.



Exercises

Do

DO wear your splint all the time, day and night for 6 weeks

DO your prescribed exercises every hour

DO elevate your hand to reduce swelling

DO care for your scar as directed by your therapist

DO NOT

DO NOT remove your splint unless instructed to do so by your therapist

DO NOT use your injured hand (except as prescribed by your therapist)

DO NOT hang your hand down by your side for prolonged periods as this may cause it to swell
DO NOT drive your car or ride a bike for up to 8-10 weeks

It is recommended that you perform the exercises below every hour whilst awake. Exercises are crucial after your flexor tendon repair to prevent stiffness and regain hand function.

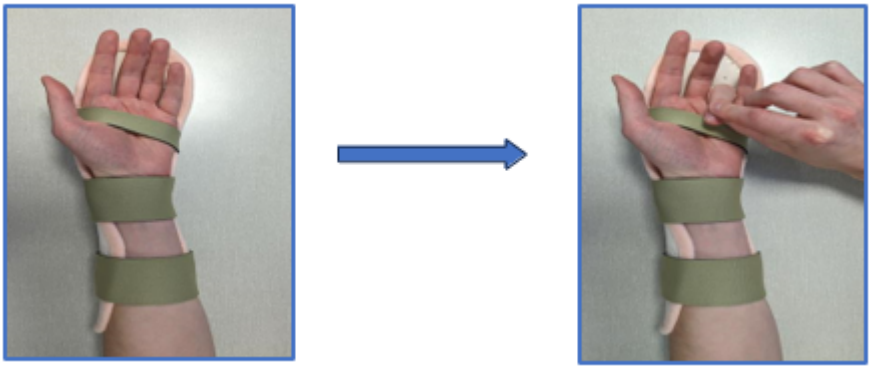
Exercises will help improve the range of motion in your fingers, strengthen your tendon, and prevent the development of adhesions. Adhesions are like a sticky bond that can form between your tendon and the tissue around it. This process can restrict movement in your fingers. Regular exercise as guided by your therapist can help prevent this. Exercise also helps stimulate blood

flow. A good blood supply allows oxygen and nutrients to be delivered to your healing tendon, helping the repair process

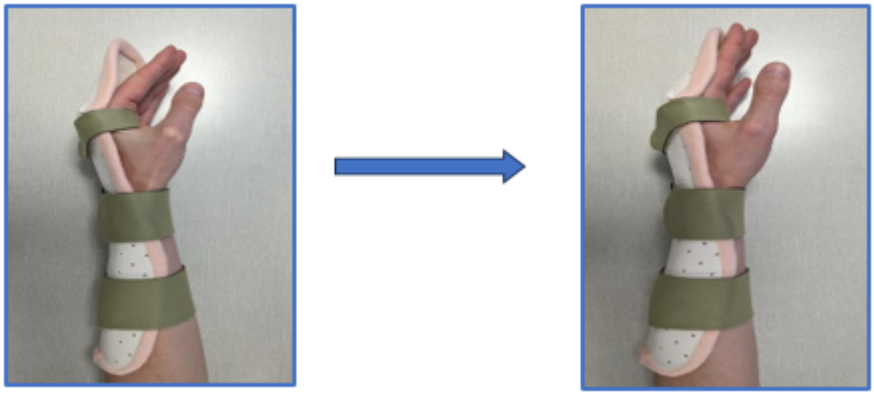
Rehabilitation (0-3 weeks)

Exercises: Perform each exercise every hour x 10 times when awake

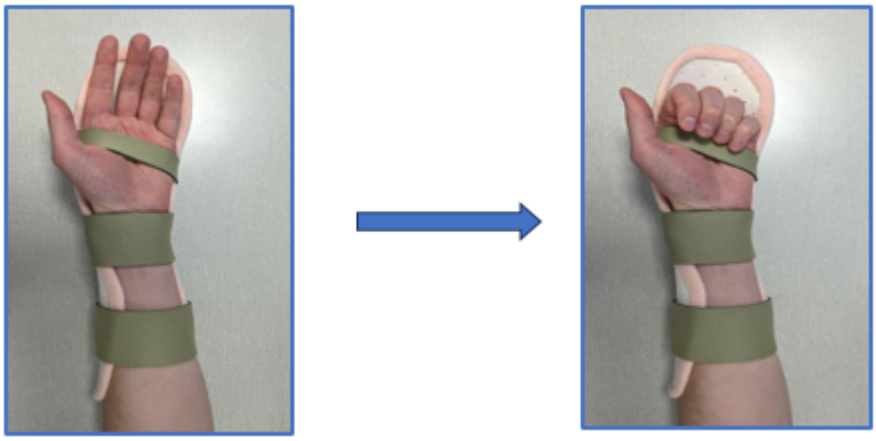
1. Using your good hand, bend your injured finger down as far as you can. Repeat this exercise until the finger bends easily (you may wish to repeat this with the other digits if they are feeling stiff) x10 times.



2. Straighten your fingers to the back of the splint x10 times.



3. Bend the fingers into your palm until you feel resistance (do not force this); as you practise more, the resistance will decrease and you will be able to get your fingers closer to your palm. However, it can take a few weeks to make a full fist (x 10 times).



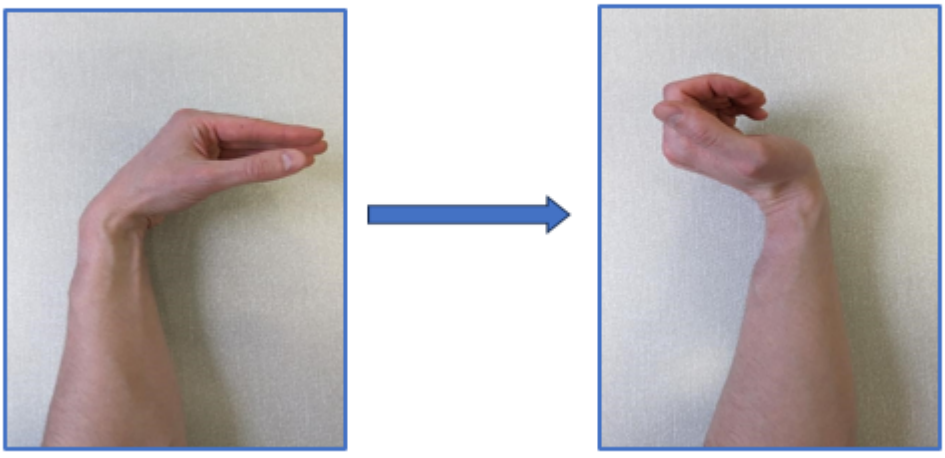
Rehabilitation (3-6 weeks)

Continue with the exercises provided at 0-3 weeks.

When instructed by your therapist, and this is usually around 3 weeks post op, please remove your splint for an additional exercise, repeat 3-4 times per day:

A. Let your wrist drop forward, allowing your fingers to naturally straighten x10

B. Bend your wrist backwards allowing your fingers to naturally bend in towards your palm x10



Rehabilitation (6-8 weeks)

You no longer require your splint. Do not discontinue until permitted by your therapist.

You can use your hand for light activities.

Do not lift anything heavy or anything that requires heavy gripping.

Rehabilitation (8-10 weeks)

You may be able to drive at this point. Discuss with your therapist.

Your therapist will show you light gripping exercises to start building your grip strength.

Do not play contact sports.

Rehabilitation (10-12 weeks)

Your tendon will be getting stronger at this point. Your therapist will make your exercises more difficult to strengthen the hand & arm.

Rehabilitation (12+ weeks)

Discuss with your therapist regarding return to sport/heavy manual work.

Complications

Tendon repair failure

There is a risk your tendon repair fails and the tendon ruptures (breaks). Your tendon is at most risk of failing during the first 6 weeks following your surgery when your tendon is at its weakest.

Signs of your tendon rupturing are:

- A snapping/popping sensation in the hand.
- You may notice that you are unable to bend your fingers.

Infection

Your wound can become infected when exposed to dirt and bacteria. Your wound is less likely to become infected when kept clean and free from germs. It is important to follow the advice provided by your therapist to reduce the risk of infection.

The signs and symptoms of infection include:

- Redness around the wound which is spreading
- The wound and/or the skin around the wound feels hot/burning
- Worsening pain at the site of the wound
- An increase in swelling at the site of the wound
- Discharge (pus) coming from the wound
- Developing a fever and generally feeling unwell

If you have any concerns, please contact your therapist:

Fracture Clinic Physiotherapy Team – 01942 822103

Wrightington Hand Therapy Team – 01257 488272

Boston House Health Centre Physiotherapy Department – 0300 707 1113

Leigh Infirmary Physiotherapy Department – 0300 707 1597

Please note we are only available Monday to Friday 8.00 – 16.30. If you have any problems out of these hours, we advise you contact your local Emergency Department.

References

Q. (n.d.). Muscles of the palm. Quizlet. Retrieved October 19, 2023, from https://quizlet.com/in/298576408/muscles-of-the-palm-diagram/



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