Advice and exercises following your thumb extensor tendon repair

Patient information

What are your extensor tendons and why have these been repaired?

The large muscles on the back of your forearm are attached to tendons that cross the wrist. These tendons attach on to the bones of your thumb and are responsible for straightening your thumb. They are important in allowing you to open your hand during activity and are essential in allowing you to function normally. Your tendon/s has been repaired to restore this normal movement and you will need to undergo a strict hand therapy programme following this surgery to optimise your recovery and functional use of your hand.

What might I expect following surgery?

Your tendon has been repaired with complex microsurgery and will need strict care to limit the possibility of re-injury of your repaired tendon (rupture). You will normally be seen by our hand therapy team within one week of your surgery and then on a regular basis following this. You will not be able to use your hand for any activity i.e. gripping or lifting until at least 8 weeks following your surgery. Your tendon will take up to 12 weeks to completely heal and it is important to follow all advice to avoid rupturing your tendon.

Why is it important to protect my repaired tendon/s?

The repair will be weak and will require protection in a thermoplastic splint to prevent movements and activity that will risk rupturing your tendon. This lightweight splint will be moulded to your hand by a hand therapist and is to be worn 24 hours per day for the first four weeks. Following this for a further two weeks you will be allowed to remove your splint indoors, however you will need to continue wearing your splint whilst sleeping and if in crowded places while your tendon continues to heal.
While wearing your splint you will need to check your skin on a regular basis for red or sore areas and inform your therapist if you have any concerns. Do not place your splint in hot water or near a heater as this will affect its shape/fitting and result in the splint becoming uncomfortable to wear. Your arm and splint will need to be covered with a plastic bag when showering or bathing (please do not remove your splint).

Why is it important to look after my wound and scar?
Following surgery it is important that you keep your dressing dry to avoid problems with your wound. Normally your stitches will be removed 10-14 days following your surgery. Once your wound is fully healed you will be shown how to use vasoline or an oil (such as sweet almond oil) to massage your scar. This will help prevent any excess scar tissue from causing problems and limiting the movement in your hand long term. You will also be given advice regarding how to manage swelling in your thumb/hand. This may include elevating your hand above your heart level or through the use compression.

Why is it important to exercise?
Exercise is important to allow your tendon to heal. It will also reduce stiffness and swelling in your hand and thumb. Your hand therapist will teach you specific exercises which you must complete throughout the day – normally every four hours with four repetitions. Too much or too little exercise is dangerous with risk of rupture or adhesions to your repaired tendon/s if not followed precisely. Your hand therapist will advise you of when to move onto new exercises.

Weeks 1 – 4:

Use your other hand to lift your thumb off the splint until it is straight.
Then allow your thumb to return to the splint on its own.

Lift your thumb of your injured hand off the splint until straight on its own.
Then allow your thumb to return to the splint on its own.
Lift your thumb of your injured hand off the splint until completely straight. Then curl your end joint to make a hook shape whilst keeping the next joint completely straight. You may be shown to use your other hand to support this joint straight. Then allow your thumb to return to the splint.

**Week 4 onwards**
The following exercises are normally completed every 1-2 hours with 10 repetitions. You will be guided by your hand therapist.

- **Hold thumb below joint to be exercised.** Bend and straighten the tip of your thumb. Then move your hand to support the next joint down and bend and straighten this joint.

- **Put the back of your hand on the table.** Bring your thumb to the base of your little finger and then bring your thumb back to the table.

- **Touch each fingertip with your thumb starting with your index finger and working along to your little finger.** Once you can reach your little finger slide your thumb down towards your palm.

- **Hold all fingers straight.** Make a big circle with your thumb.

- **Place the little finger side of your hand on the table.** Bring your thumb away from the palm (in line with the table) and then back to the index finger – like the action of opening your hand to pick up a glass.

- **Place the palm of your hand on the table.** Moving your thumb along the table bring it away from your index finger and back again.
What important advice should I follow?

- Do your exercises regularly as instructed during the day then rest completely between exercises
- Do not use your hand for anything other than your exercises until advised by your hand therapist
- Keep your hand elevated as much as practically possible to prevent swelling in your hand
- Move your elbow and shoulder through full range of movement every day to prevent stiffness in these joints
- Keep your splint on 24 hours a day for up to four weeks – DO NOT remove your splint unless advised by your hand therapist
- Do not attempt to alter your splint – if you have concerns with how it is fitting please contact your hand therapist
- Keep your splint and wound dry using a plastic bag in the bath or shower
- Do not allow your splint to get hot as this will affect how it fits making it uncomfortable
- Stop or cut down smoking as this will help with your healing
- You will not be able to resume driving until at least 8 weeks following your surgery
- Do not play contact sports or heavy activities for 12-16 weeks
- If you notice any sudden pain, swelling, redness or a change in your ability to move your hand or your splint becomes too loose or tight please contact your hand therapist

Please note this is only a guide and follow your individual hand therapist’s instructions.

Who should I contact if I have any problems?

If you have any problems or questions regarding your hand therapy please contact the hand therapy team on 01642 835595.