



DynamicHealth

NHS

How to help your hand or thumb pain



Cambridgeshire Community Services NHS Trust: delivering excellence in musculo-skeletal services and pelvic health physiotherapy across Cambridgeshire and Peterborough

This guidance has been produced by the DynamicHealth physiotherapy service. It offers simple measures to help you manage your hand and thumb problem safely; often the right advice and exercises are all you need to improve the problem.

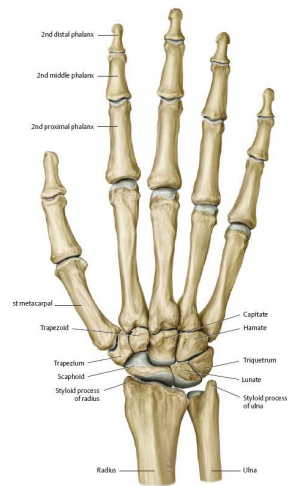
If your hand or thumb pain started after recent trauma, please seek medical advice before reading further.

About the hand and thumb

The hand and thumb are made up of seven carpal bones (the small bones at the base of the hand) and each finger is then made up of four bones as shown in the diagram to the right. The thumb is slightly different, in that it is made up of three bones.

There are more than 30 active muscles operating the hand, which attach in the hand and fingers through tendons. There are of course also many ligaments in the hand, attaching the bones one by one to each other.

The hand is a very intricate structure. No other region has the same density of joints or muscles. This is of course because we need our hands to act in a precise manner. Because our hands are so vital, it can cause very noticeable problems when something goes wrong.



Causes of hand and thumb pain

Pain in the hand is usually caused either from osteoarthritic changes to the joints, or from repetitive strain tendon injuries. The most common regions to experience pain are at the base of the thumb, back of the thumb or in the joints in the fingers.

Hand and Thumb exercises

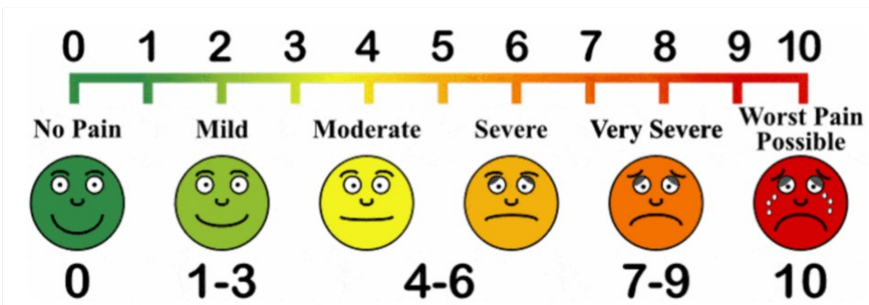
How much should I do?

- **Exercise every other day** – allowing enough rest is important to let the soft tissues recover and develop.
- **Choose 3 or 4 exercises** from the set below that are challenging but manageable.
- **Perform 3–5 sets of 5 repetitions** of each exercise.
- **Rest for up to 1–2 minutes** between each set.
- **Once an exercise is easy, progress it** by increasing the number of repetitions (aim for 10) or for holding the positions for longer, or moving to a more challenging exercise.

The following exercises do not need to be completed in any particular order and they can be helpful to try and gradually build your range of movement and strength at the same time. Choosing some challenging, but manageable, exercises from each section may be helpful.

How much pain is too much?

- **Before exercising, rate your pain** at that moment on a scale of 0–10, where 0 is no pain and 10 is the worst pain you can imagine.
- **A maximum pain level of 4/10 while exercising is fine**, as long as this eases within 45 minutes of the session and does not interfere with sleep or activities the next day.
- **If your pain increases beyond this, simplify the exercise** by reducing the range of movement or number of repetitions, or try an easier exercise.



Range of movement exercises

If your hand has lost movement because of pain or stiffness, it needs to be regained in order to strengthen effectively.



Thumb Opposition

Aim your thumb to the base of your little finger. If you are not able to reach quite this far, start at the top of your little finger and slowly work down.

Stop this exercise if it is causing pain at the back of your thumb.



Thumb Flexion

Place your little finger down on a table.

Then take your thumb inwards, so that it comes away from your other fingers. Note: the thumb should go across towards your opposite arm, not upwards towards your body.



Thumb Abduction

Place your hand with the palm down, onto a table.

Then slide your thumb away from the other fingers.

Keep your thumb down on the table.



Finger Flexion (First row of joints)

Bend your fingers at the knuckle joints, keeping the other joints straight.



Finger flexion (second row of joints)

Bend your fingers, focusing the movement on the second row of joints.



Finger Flexion (final row of joints)

Try to touch your fingertips down to the pad at the base of your fingers.

You can complete these three finger flexion exercises together, going from the first to second to third exercise and then repeating this cycle.

If you are not able to complete these movements with every finger, consider helping the movement with your other hand.

Strengthening exercises

Search online for “finger strengthening putty”. This will be required for many of the exercises below. (Unfortunately, this is not available in any high-street stores). You can instead however purchase Playdough, which will work in a similar way.



Thumb Opposition Against Putty

Place your hand on a table with palm up and putty on the base of your little finger.

Push your thumb against the putty towards the base of your little finger.



Thumb Flexion Against Putty

Place your hand on a table with palm up and thumb pointing upwards to the ceiling. Put putty in the web between the base of your thumb and index finger.

Push your thumb towards the index finger.



Thumb Extension Against Band

Place your forearm on a table with thumb and index finger together and a broad elastic band around them.

Pull the thumb and index finger apart as far as possible.



Thumb Abduction Against Band

Place your hand on a table with the palm facing up and a broad elastic band around your thumb and index finger.

Lift your thumb straight up against the resistance.



Finger Flexion Against Putty

Put putty on a table and push your fingertips deep into the putty keeping your forearm on the table.

Bend fingers into a fist pushing them deeper into the putty. Try to focus on curling in the joints at the tips of your fingers. Then straighten your fingers out again.



Grip Strength

Sitting or standing. Hold a foam ball, a tea towel, grip strengthener or putty.

Squeeze firmly and hold for 5 seconds.

Top tips

- Try to build your exercises into your daily activities.
- You don't have to do all the exercises in one go.
- It is normal for it to take **6 – 12** weeks before you notice an improvement in your pain, movement and strength, and it can take longer for complete improvement.
- Don't stop moving your hand throughout the day.

Braces and Supports

If your pain is worst at the back of the thumb, especially first thing in the morning, you should purchase and try wearing a [“Thumb SPICA” brace](#) that will stop your thumb moving across your hand at night. For some people this can provide a degree of relief from their pain.

If your pain is worst at the base of the thumb on the side of your palm you may wish to consider purchasing a thumb stabilising support. These come in either firm or movable variations. Generally it is more practical to purchase a support that will still allow some movement.

Activity Modification

Usually with pain in the hand or thumb there will be one of two activities that particularly aggravate the pain. These will normally involve repetitive motions. Most commonly this will be computer based work. Sometimes small modifications can make a big difference to hand pain. For example, you could try resting your wrist on a towel or wrist support when typing, or purchasing an [ergonomic keyboard or mouse](#). If possible, take regular breaks where you can complete the stretching exercises.

Sometimes the pain will not be linked to one specific activity, but will be aggravated by any strenuous force through the hand. If this is the case try to be mindful of your activities and consider how these can be adapted. Could you use your other hand for the activity? Is there a helpful friend or companion who could do the task for you?

In addition to modifying specific activities you should consider pacing yourself with your activities throughout the day.

Lifestyle and Wellbeing Support Services

<https://haycambspboro.co.uk/>

<https://healthyyou.org.uk/>

Speaking to the social prescriber at your GP practice can also be a very useful resource.

Useful Resources

<https://www.versusarthritis.org/media/23100/shoulder-pain-information-booklet.pdf>

For further information about this service contact:

General Enquiries: 0300 555 0123

Physiotherapy Dept, Hinchingsbrooke Hospital, Hinchingsbrooke Park, Huntingdon, Cambs PE29 6NT

Physiotherapy Dept, Brookfields Campus, 351 Mill Road, Cambridge, CB1 3DF

Physiotherapy Dept, Princess of Wales Hospital, Lynn Road, Ely, Cambs, CB6 1DN

Physiotherapy Dept, Doddington Hospital, Benwick Road, Doddington, Cambs, PE15 0UG

Physiotherapy Dept, Rowan Lodge, North Cambs Hospital, The Park, Wisbech, Cambs, PE13 3AB

Physiotherapy Dept, City Care Centre, Thorpe Road, Peterborough, PE3 6DB

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