

Managing early Osteoarthritis of the thumb

How Osteoarthritis affects the base of the thumb

The joint at the base of the thumb, the carpometacarpal joint (or the CMC joint) is one of the most common joints in the body to be affected by osteoarthritis. The CMC joint has been described as the most important joint of the hand. Age related changes to the joint cause pain and impair hand function. Tasks like opening jars, taps, milk cartons, hand writing, holding a book or newspaper, lifting and carrying pots and plates can become painful and increasingly hard to do.

It is thought that instability of the thumb muscles leads to osteoarthritis of the CMC joint. This instability may occur for a number of reasons including hypermobility, previous injury and trauma, obesity, hormonal and hereditary factors, chronic and repeated stress and occupations involving repetitive fine manual tasks.

Conservative Management

In addition to the below exercises, the following can be tried in combinations with guidance from your GP and therapist:

- Rest from aggravating activities
- Analgesics
- Non steroidal anti-inflammatory medication
- Splinting

Thumb exercise programmes show some benefits to pain and hand function in the early stages of the process. There is little benefit from exercise when there is a fixed deformity or subluxation (partial or incomplete dislocation of the joint). Specific exercises at the right time have the potential to delay or reduce the need for surgery.

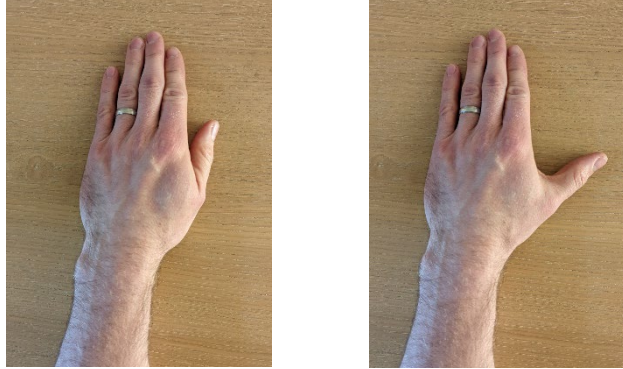
Osteoarthritis Base of Thumb Home Exercise Programme

Things to remember while performing the exercises:

- Occasional discomfort or a stretching feeling may be felt while performing the exercises.
- No exercise should cause sharp or excessive pain. Please inform your therapist if any exercise causes sharp pain.
- All exercises should be performed slowly and gently. Hold for a count of 10 at the end of the movement.
- Aim to do the exercises up to 4 times per day.

Stage I

With the palm facing down, move the thumb out to the side and as far away from the index

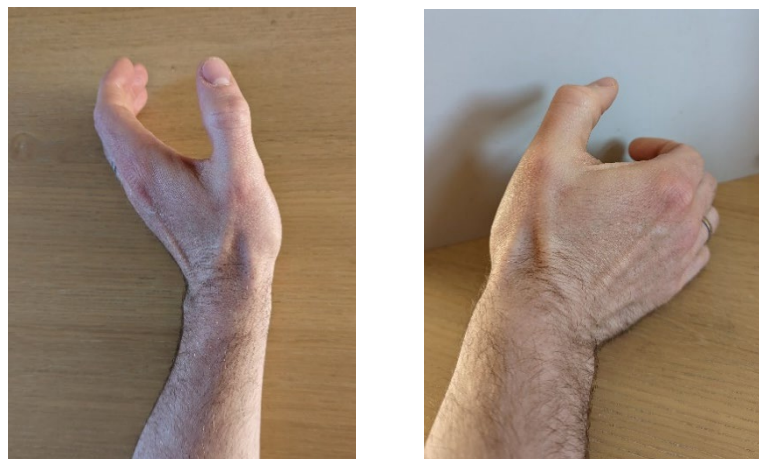


finger as you can. Hold for 5-10 seconds. Repeat up to three sets of 10.

Place hand and forearm palm down on a table. Using the opposite hand, gently stretch the thumb out to the side, away from the palm, moving from the base of the thumb. Hold for a count of 10, repeat three times.



Rest on the little finger side of the hand, with your wrist slightly extended. Bend the top joint of the thumb and raise the thumb up towards the ceiling. Hold for 5-10 seconds before returning to the starting position. Repeat up to three sets of 10. (2 x views are shown of the same position below).



Rest on the little finger side of the hand, with your wrist slightly extended. Bend the top joint and stretch out the thumb as though moving to hold a glass. Hold for 5-10 seconds and then return to the starting position. Repeat up to three sets of 10.

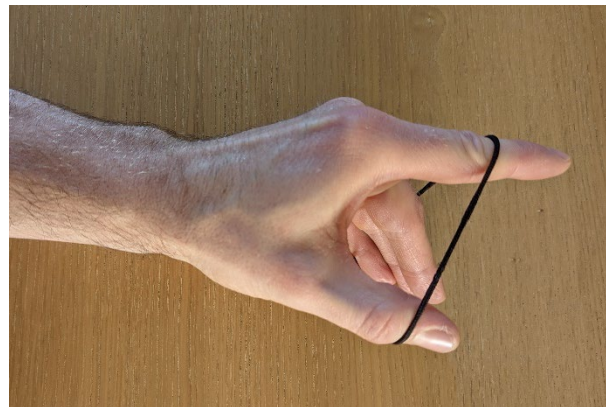
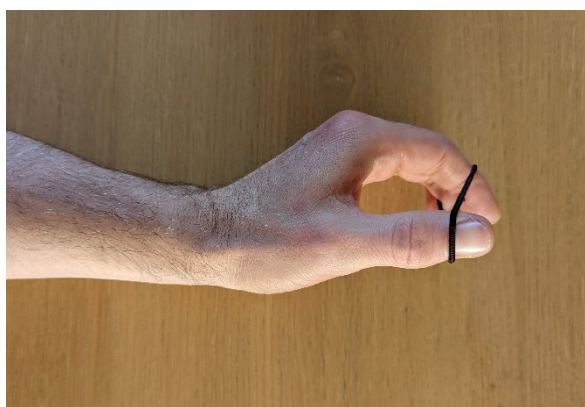


Stage II

Only progress to these exercises when the previous ones can be performed easily and without discomfort.

Rest on the little finger side of the hand, with the wrist slightly extended. Place a rubber band around your thumb and fingers. Stretch the band by raising your thumb upwards, with the top joint bent, as far as you can. Ensure that the wrist remains in the starting position. Hold for 5-10 seconds, return to the starting position. Repeat up to 10 times. As the exercise gets easier, replace the rubber band with a stronger one.

It's possible to include the index finger also, as seen in the second picture.



Alternatively, make a loose fist on the table, as shown below with the thumb tucked in (start position), then move away from the hand (end position). Be careful to avoid extending the thumb backwards (error picture), as does not engage the muscles we are looking to strengthen.



Stage III

Practice activities that involve pinching remembering to keep the top joint of the thumb bent and your wrist slightly extended.

Further Information

If you have any questions or queries regarding any of the information, please do not hesitate to ask your Physiotherapist.

Occasionally, if people have severe pain with destruction of the joint, a [steroid injection](#) or [surgery](#) is possible. We have another document with more information on this titled '[Osteoarthritis at the base of the Thumb](#)' which you can also find on our MSK Therapies page.

Sources of information

1. [Østerås N, Kjekken I, Smedslund G, et al. Exercise for hand osteoarthritis. Cochrane Database Syst Rev 2017; 1:CD010388.](#)
2. [Deveza LA, Robbins SR, Duong V, et al. Efficacy of a Combination of Conservative Therapies vs an Education Comparator on Clinical Outcomes in Thumb Base Osteoarthritis: A Randomized Clinical Trial. JAMA Intern Med 2021; 181:429.](#)

Important information

This patient information is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

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After reading this information are there any questions you would like to ask? Please list below and ask your Occupational or Physiotherapist.

Reference

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The following clinicians have been consulted and agreed this patient information:

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