



Hand Therapy



Management of Thumb Osteoarthritis

What is Osteoarthritis?

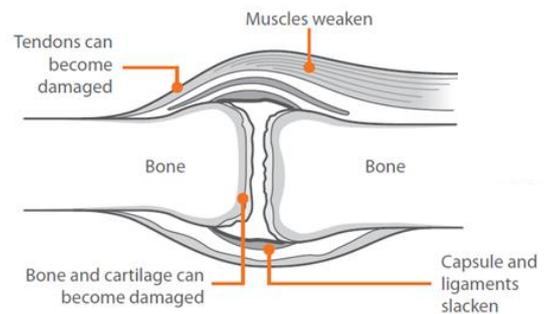
Osteoarthritis is a common condition which can affect any joint in the body. Joints that are used a lot in daily life, such as the joints of the hand, are commonly affected.

Cartilage covers the surface of bones and helps them move freely against each other. When osteoarthritis develops, cartilage thins and becomes rougher. This means the joint doesn't move as smoothly. As the cartilage becomes worn or damaged, the tissues within the joints become more active as the body tries to repair itself.

This repair process can change the structure of the joint, which can allow the joint to work normally without pain or stiffness. However, sometimes it doesn't work so well and changes to the joint structure can contribute to symptoms such as pain, swelling and difficulty in moving the joint normally.

The bones in the joint may rub and wear away. Extra bony spurs (osteophytes) may form as the body attempts to repair damage.

Soft tissue surrounding the joint may become inflamed and stretched.



Arthritis Research UK (2013)

Thumb Base Osteoarthritis

The joint at the base of your thumb is called the *Carpometacarpal (CMC)* joint.

It is where the metacarpal bone of the hand meets the trapezium bone in the wrist.

Arthritis in this joint can cause functional limitations and pain on gripping and pinching activities.



Case courtesy of Dr Jeremy Jones, Radiopaedia.org, rID: 28922

What are the symptoms?

- Joint pain
- Stiffness
- Reduced movement
- Reduced grip
- Crepitus (grating/ cracking)
- Instability (weakness in tissue surrounding joint)
- Swelling



What causes it?

Osteoarthritis is likely to be caused by a combination of factors. The following may predispose someone to the condition.

- *Age* – More common aged 40+. Cartilage naturally thins with age.
- *Sex*- More common in women, particularly aged 50+.
- *Family history* – Genetics can increase the likelihood of getting osteoarthritis.
- *Joint injury* – An injury or operation on a joint may lead to osteoarthritis later on.
- *Occupation* – Hard repetitive activity or demanding jobs may increase the risk.

Joint Protection

Joint protection doesn't mean not doing things. It means being mindful of how you use your joints and changing the way you do things. Joint protection can reduce joint strain and damage.

Principle	Explanation	Example
<i>Spread the load</i>	Using more joints can reduce the strain on individual joints	Use two hands to carry a mug
<i>Use stronger joints</i>	Using larger, stronger joints reduces strain on small joints	Carry a shopping bag on your forearm
<i>Avoid tight grips</i>	Tight grips put a lot of strain on joints	Use padding to enlarge handles of items (e.g. pen, cutlery, tools)
<i>Use less effort</i>	Reducing the amount/ weight you lift Using labour saving gadgets	Slide objects along a surface instead of lifting them
<i>Avoid positions of deformity</i>	Avoid using awkward grips as this may push your joints into deforming positions	Use a mug with a larger handle, to avoid pushing your fingers into an awkward position
<i>Use joints in stable positions</i>	Use joints in a position that spreads the weight evenly over several joints	When carrying items, keep your fingers in line with the wrist

Joint Protection Tips

Here are some examples of joint protection tips for around the house.

Kitchen

- To **wring a cloth** out, wind the cloth around a tap, cross the two ends over each other and twist them.
- When **boiling vegetables**, use a wire chip pan basket inside the pan, to avoid heavy lifting when straining.



Living room

- Instead of holding a **book**, try using a book rest. Some models of tablet and e-reader may be easier to hold than a book.
- Handiplugs and stick-on **plug** grips can make plugs easier to pull out.

Bathroom

- Transfer **shower gel** into pump bottles. Pumping can be easier than squeezing.
- A towelling bath robe or microfibre towel may be easier to grip than a heavy **towel**.



Bedroom

- A buttonhook may help for fastening **buttons**.
- Try attaching a small piece of ribbon or key ring on a **zip** to hook your finger through.



Pacing

- **Planning ahead** - Space demanding tasks out (e.g. spreading out cleaning rooms of house over course of the week).
- **Deciding priorities** – Does this task need to be done today? Can someone else help with this?
- **Chunks of activity** - Doing a little bit at a time, with rest breaks. Switching between heavy and light activity (e.g. doing dusting following hoovering).
- **Listening to pain** - Take notice of any pain you feel and use this as a warning.

Assistive Devices

Labour saving gadgets can reduce the effort required to do daily tasks. There are lots of gadgets available on the market and different variations of these exist. These can be purchased:

- *Online*
- *At mobility stores*
- *At some pharmacies*



Greenwood Centre

The Greenwood centre is based in Dorchester and specialises in independent living aids. They do not sell products, but they have a range of items that you can try, to see if they are right for you. You will need to make an appointment to visit by phoning 033 300 30010 and asking to be put through to the Mi-Life Greenwood Centre.

Pain Management

The following may help to manage the symptoms of osteoarthritis.

- Warmth/cold
- Paracetamol
- NSAID creams/ gels (e.g. ibuprofen, diclofenac)
- Capsaicin cream



If you would like more advice regarding pain relief, speak to your doctor or pharmacist.

Steroid Injections

Steroid injections may be given into a very painful joint. They reduce inflammation, which can reduce pain.

They can reduce symptoms for around 2-3 months and may be accessed through your GP, orthopaedic consultant, rheumatologist or Musculoskeletal (MSK) service.

Splints/supports

A splint may help to support and stabilise your thumb joints, during activity, which can reduce pain.

A splint can be worn during activities which cause pain and discomfort.

It is not recommended that you wear your splint all the time, as this may cause the joint of the thumb to stiffen and the muscles to become weak.

There are many variations of splints/ supports available on the market, made from both soft material and plastic.



Exercises

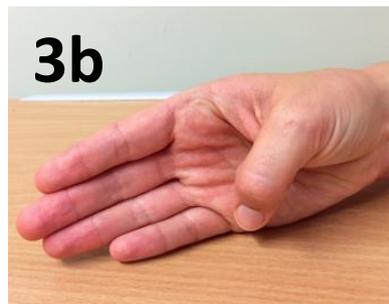
There is evidence that exercises may have small beneficial effects on pain, stiffness and hand function. The following exercises aim to improve/maintain joint mobility and strengthen muscles which support the thumb joint. Exercise should be completed within your pain limit. Aim to complete once a day.



Push outwards and downwards through the fleshy part at the base of your thumb. Hold for 10 seconds.



Bring your thumb to touch each fingertip to make an 'o' sign. Hold for 10 seconds.



Position your hand as shown in picture (3a), resting your hand on the little finger side. Take your thumb away from your index finger and with the end joint kept in a bent position, lower the thumb towards the base of the little finger (3b) and then lift your thumb up, whilst keeping the end of thumb bent, to return to the starting position (3c). Hold stretch for ten seconds.

Surgical Management

Most individuals will not require surgery, however, if symptoms are constant and unable to be managed alternatively, then this may be considered.

Trapeziectomy

The most commonly performed surgery, which involves the removal of the trapezium bone. This is carried out to prevent the 'grinding' pain, which may be caused by bone on bone contact.

You will require a review from an orthopaedic consultant, in order to be considered for this surgery.

Joint fusion and replacement are less common types of surgery.



BodyParts3D (2013)

Further Treatment

If you find that you are unable to manage your symptoms using self-management strategies, you may wish to speak to your GP or referrer regarding further medical/ surgical options.

Contact Numbers:

We hope that you have found this information useful. If you have any questions, please speak to the following Dorset County Hospital Staff:

Hand Therapy: 01305 255314

Useful Websites:

Arthritis Research UK:

<https://www.arthritisresearchuk.org/>

Versus Arthritis:

<https://www.versusarthritis.org/about-arthritis/>

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Author(s) Melissa Lambert, Jodie Simmons (Occupational Therapists)
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If you have feedback regarding the accuracy of the information contained in this leaflet, or if you would like a list of references used to develop this leaflet, please email pals@dchft.nhs.uk



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