Caring at its best

University Hospitals of Leicester

# Managing osteoarthritis in your thumb

## **Occupational Therapy**

Information for Patients

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### What is osteoarthritis?

Osteoarthritis is a condition that affects the joints causing pain and stiffness. You may have heard people use other names such as arthrosis, osteoarthrosis, degenerative joint disease or wear and tear.

Over time, osteoarthritis can cause the cartilage that covers the ends of the bones allowing smooth, pain free movement and shock absorption, to roughen and become thin. The body tries to repair this damage and in doing so, the bone at the edges of the joint may grow and form bony spurs called osteophytes.

The lining of the joint (synovium) may thicken and produce more fluid, causing the joint to swell. The membrane that surrounds the joint (capsule) and the ligaments which connect the bones of the body together to help make them stable, may slowly thicken and contract. This can lead to stiffness.

Any joint can develop arthritis. In people who have arthritis it is common for it to affect the base of the thumb.

## Osteoarthritis at the base of the thumb

#### What are the symptoms?

- **Pain:** osteoarthritis at the base of the thumb can cause pain. It may be worse when you move the joint or during certain activities which make the symptoms worse. This could be writing, opening a jar or when you have to keep a grip with your hand for a long time. You may also get pain at night which can make it hard to sleep.
- **Stiffness:** the thumb may not move freely or you may find it difficult to move after a period of rest. You may notice it "creaks" on movement.

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- **Swelling:** at times the joint may feel tender or there could be swelling around the base of the thumb and across the back of the hand.
- **Change of thumb position:** over time the thumb position may change. You may notice that the bone at the base of the thumb sticks out more, or that the middle joint bends the wrong way. You could also find that the muscle in the space between the thumb and first finger tightens.

The joint at the base of the thumb is known as the carpo-metacarpal joint (CMCJ). It is where one of the wrist bones (the trapezium) meets and moves against the first thumb bone (the metacarpal).

This joint is a unique "saddle" shape (like a rider sitting in a saddle) which allows a wide range of movement and flexibility to help you to grasp large objects but also to pinch and carry out fine jobs such as threading a needle.

Normal use of the hand puts forces through the joint and this load is greatest at the base of the thumb.

## What can be done to help?

It may be possible to reduce the pain even if you have arthritis. There are a range of non-surgical treatments (conservative management) that aim to control pain and swelling while allowing your thumb to work.

#### Heat or cold packs:

If your thumb "aches" and the main problem is stiffness, heat may help. Warmth increases circulation and can reduce pain. It can also make soft tissues easier to stretch, reducing muscle spasms. If your thumb is swollen or tender you may prefer the use of cool packs for short periods of time.

#### Pain relief:

Painkillers such as paracetamol or anti-inflammatory drugs such as ibuprofen may help. Talk to your GP or pharmacist about anti-inflammatory creams or gels that can be massaged into the skin. This includes pain relief gels such as arnica or capsaicin cream.

#### Compression:

If the area around the thumb and the back of the hand is swollen, wearing a compression glove may help. A compression glove is a tight garment that provides a gentle pressure to the hand which can relieve joint pain for some people. There are lots of different types available so please speak to your therapist.



#### Splints or supports:

A splint is a medical device that can be worn to support the thumb during activities or for rest overnight. There are many different designs and they can be soft or rigid. They are designed to either limit movement or stop a joint from moving. Your therapist will advise you on the best splint to meet your needs. You may need different splints for different tasks. Usually a more flexible splint is better if you have mild symptoms and a splint made from a more rigid material is useful for those with more severe pain.

#### Thumb posture:

Be aware of the position of your thumb during activities. The best position for the thumb is when it forms an "O" shape with the index finger as shown in the diagram.

Try to keep a bend on both thumb joints. If this is difficult ask your therapist to give you exercises to help, as strengthening specific muscles may help to reduce your thumb pain.

#### Protecting your joints when carrying out tasks:

It will help if you can identify the activities that make your thumb pain worse. Make a list of these. Your therapist can then help you to find new ways to do tasks, which over time can help reduce your pain.

## **Practical tips**

- Avoid gripping things tightly, especially between the thumb and first finger tip.
- When writing, use gel or fibre tip pens that don't need you to press hard. Thicker, chunkier pens should be easier to use.
- Avoid twisting grips that put pressure on the tips of the fingers and thumb. Instead use the palm of the hand and non-slip mats to help open jars. This uses the joints in a more stable position as well as spreading the load over several joints.
- When holding items such as a book or plate use the palm of 1 hand with the other in an "O" shape. This prevents pushing the thumb towards a position of deformity.
- Use cutlery with a bigger handle and/ or use a steak knife.
- Adapted knives for food preparation and alternative design vegetable peelers are also available.
- There are lots of gadgets and devices available that reduce the pressure and forces going through the thumb. For example, a "key-turner" holds your door key, and makes you use your bigger forearm muscles.





• Use "sprung scissors" instead of normal scissors. These allow the thumb to be kept in an "O" shape so that the forearm muscles that bend the fingers do the work, avoiding the need to use the thumb in a deforming position.

#### Remember .....

- Take notice of any pain you feel and do not ignore it!
- Wear a splint to protect the thumb during heavier activities such as housework or gardening or activities that you know make your pain worse.
- Take regular breaks from jobs that need the thumb to be held in a fixed position for a long time, or heavy tasks such as those mentioned above.
- Getting into new habits takes time. Try changing one thing at a time and be patient. Ask your friends and family to help.
- If you have been given exercises to complete, try to do them every day. Keeping the muscles strong may also help reduce pain and changes to the joint.

## **Contact details**

Name of Occupational therapist:	

Telephone number:

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