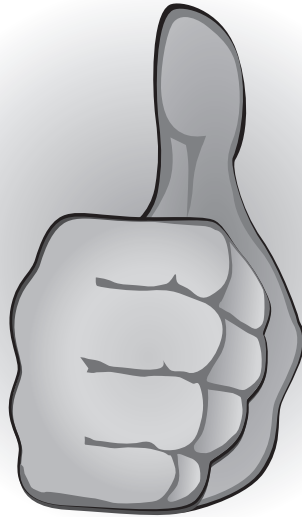


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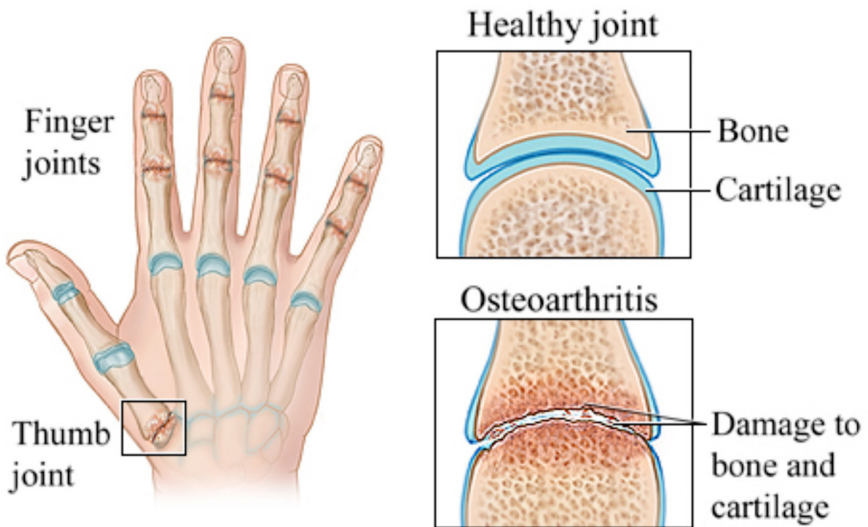
# **Osteoarthritis of the Thumb - Hand Therapy**



# What is Osteoarthritis (OA)?

Arthritis means inflammation in the joints. Osteoarthritis is the most common form of arthritis in the UK affecting up to 8.5 million people. It is caused by changes in the cartilage that cover the ends of the bone within the joint.

Normal joints are constantly undergoing repair due to the daily wear and tear that is placed on them. In osteoarthritis this process does not seem to occur correctly and changes occur. The cartilage that covers the end of the bone becomes damaged and worn. Bony growths can form around the joint edges. These are called osteophytes and the tissues surrounding the joint can become inflamed (See diagram 1).



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**Diagram 1: Changes that occur in the hand with Osteoarthritis**

The Symptoms of Osteoarthritis of the Thumb are:

- Pain in any of the thumb joints, most commonly at the base of the thumb and sometimes into the wrist.
- Stiffness or loss of movement
- Weakness in your ability to grip or hold objects, and difficulty at times performing finer tasks like buttons and zips.
- The joints can become swollen or misshapen and the knuckles can appear thicker.

Sometimes people can have no symptoms of this condition for a long time although x-rays can show changes.

The opposite of this can also be true. An individual can have minor changes on a x-ray and have severe symptoms.

## How is it diagnosed?

Osteoarthritis of the thumb is usually diagnosed by your age, history and symptoms you describe. Usually, you do not need any further tests. However, your doctor may take blood tests or x-rays to rule out any other causes.

## What causes Osteoarthritis of the thumb?

It isn't always clear but there are a number of factors that can play a role in developing OA of the thumb.

These include:

- **Age:** OA is more common with increasing age. This is due to the natural wear and tear process and the body's ability to repair becoming less as you get older.
- **Genetics:** There is thought to be a link to inheriting a tendency for OA.

- **Gender:** Women are more likely to develop this than men.
- **Previous injury:** If you have had previous trauma or injury to your thumb this may contribute to OA.
- **How you use your hand:** If you are continually putting pressure through these joints with your occupation, hobbies or lifestyle, this may contribute to pain and joint changes.

## Prognosis

A diagnosis of OA does not mean that it will continue to get worse. If you have any worries about your diagnosis please speak to your therapist, GP or consultant.

## Management

When referred for therapy you will have an assessment to decide how best to help you. This will include assessing:

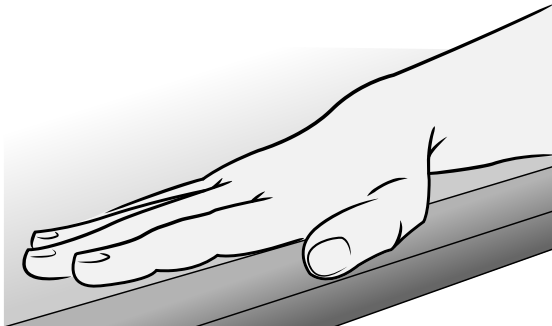
- The mobility of your thumb.
- the strength of the muscles that support your thumb.
- how you use your hand.

Management can include offering you an individual exercise programme, splinting, techniques to help your pain, advice and assistance on improving the function of your hand.

## Exercises

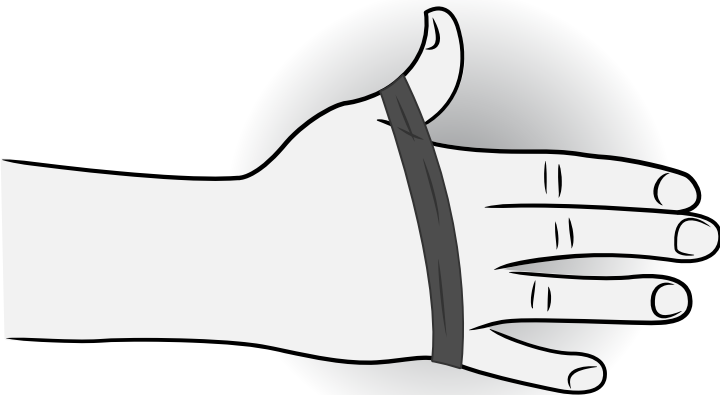
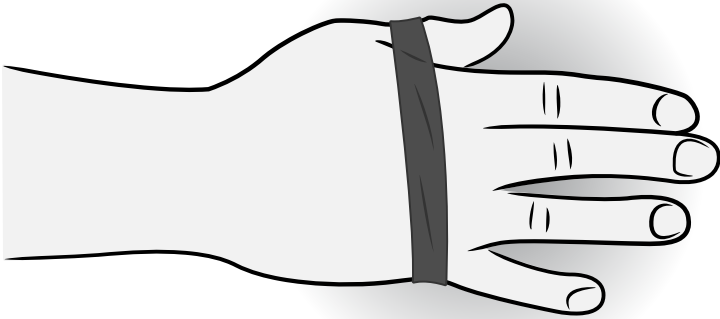
Your therapist will discuss and show you the exercises that are appropriate for you. Below are examples of some exercises.

Complete the exercises \_\_\_\_ times per day and only those advised by your therapist.



### 1. Strengthening of muscles at the base of the thumb (1)

- Place your hand at the edge of a table with your affected thumb off of the edge.
- Bend the tip of the thumb.
- Keep the hand flat on the table and lift the thumb level with the back of the hand, keep the tip bent as you do so.
- Hold \_\_\_ seconds. Relax. Repeat \_\_\_ times.



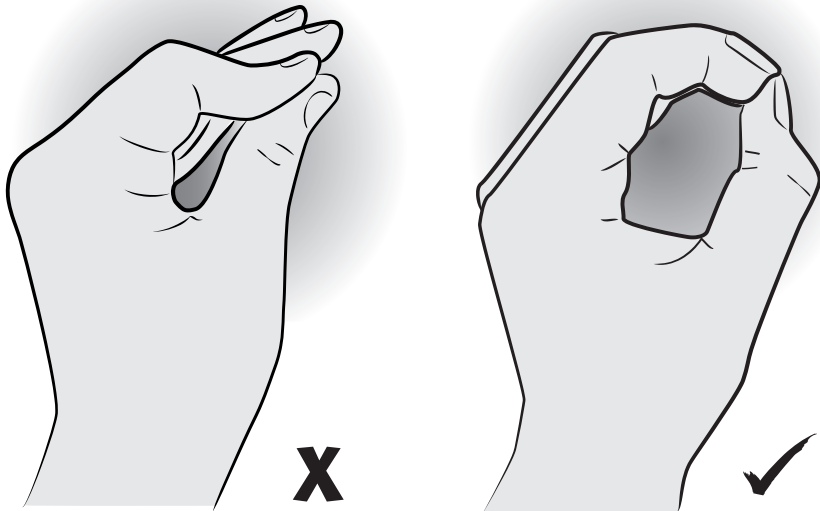
## 2. Strengthening the muscle at the base of the thumb (2)

- Placing a band around your palm and the thumb below the knuckle in the thumb.
- Keeping your palm flat on the table take your thumb away from your palm as far as possible.
- Make sure the band does not move above the knuckle.
- Hold for \_\_\_ seconds. Relax. Repeat \_\_\_ times.



### 3. Stretch of thumb web space

- Using your other hand take your thumb away from your palm as far as you can.
- Hold \_\_\_ seconds. Relax. Repeat \_\_\_ times.



#### 4. Pinch exercise to strengthen base of thumb and address posture of the hand.

- Often people use the thumb incorrectly when pinching and cause the tip to bend backwards. This puts added pressure on the base of the thumb – see the 1st picture. Place the thumb in the correct position (see picture 2). Practice pressing the thumb and index gently together while maintaining position of the thumb
- Hold \_\_\_ seconds. Relax. Repeat \_\_\_ times.



## Splints

Your therapist may give you a splint to assist with the functioning of your hand and to help relieve the pain. It is very important you follow the instructions on how to use this splint. There is room in the box below to note down any reminders.

Using your splint:

## How you use your hand

Your therapist will give you specific advice on protecting your thumb joint and the way you use your hand. This could be in combination with your splint, equipment at work, using your computer etc. This is to help your pain and strengthen the muscles. Use the space below to note down any reminders or advice.

Notes:

## **Heat or cold**

Some patients with OA find heat can help their pain. This may involve placing a hot water bottle or heat pack over your hand or using a warm water bath. Always make sure that the temperature is not too hot for you skin.

Or if you feel hot and swollen around your joint an ice pack for 10 to 15 minutes can also be soothing. Always protect your skin with a damp cloth as the ice can burn. If you have sensory problems in you hand speak with your therapist before trying ice.

## **What other treatments are available?**

### **Painkillers**

Simple analgesia like paracetamol can be an effective painkiller. Ask your GP or pharmacist for advice on the most appropriate medication for you.

### **Steroid injections**

Corticosteroids can be administered directly into the joint via injection. This provides an anti-inflammatory effect but is not always suitable for every patient. Speak with your GP, Consultant or Physiotherapist for more information.

### **Surgery**

If the treatments above are not effective, surgical options may be available. The most common procedure is a trapeziectomy. This involves removing one of the bones that is most worn and causing pain. You would need a referral to an orthopaedic surgeon.

## References

1. Osteoarthritis patient information leaflet.  
[www.patient .co.uk](http://www.patient.co.uk)
2. NICE clinical Guideline, The Care and management of osteoarthritis in adults. January 2008.
3. Hunter DJ, Felson DT. Osteoarthritis. BMJ, March 2006.
4. Colditz, Judy (2000). The Biomechanics of a Thumb Carpometacarpal Immobilisation Splint: Design and Fitting. Journal of Hand therapy 13:228-235

## More Information

1. [www.patient.co.uk](http://www.patient.co.uk)
2. Arthritis Research UK:  
[www.athritisresearchuk.org](http://www.athritisresearchuk.org)
3. NHS Inform  
[www.nhsinform.co.uk](http://www.nhsinform.co.uk)

## Notes:

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