Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

Base of Thumb Arthritis

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Base of Thumb Arthritis

Patient Information

Hand Therapy Team

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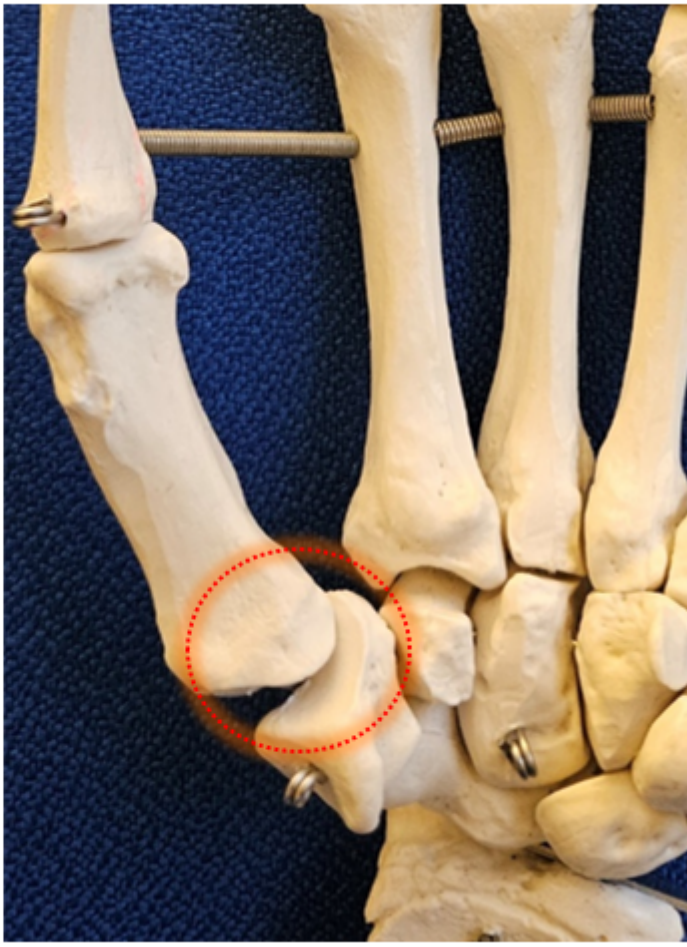
Osteoarthritis and the base of the thumb

Osteoarthritis (OA) is a condition that causes the cartilage, the smooth, protective surface at the end of the bones, to thin and wear. This often causes pain, stiffness and swelling, and over time can lead to weakness and deformity.

The carpometacarpal joint (CMCJ) is the joint at the base of the thumb. It is a complex joint that permits movement in multiple directions due to the loose bony contact and many ligaments wrapped around the joint. When these ligaments become stretched or ‘lax’ it can leave the joint vulnerable to increased wear and instability.

Several factors can increase the risk of developing thumb osteoarthritis. These include getting older, being female, having a higher body weight (BMI), loose joints, and previous injuries to the thumb.





Symptoms

Pain at the base of the thumb is the most commonly reported symptom. Initially this may be associated with particularly activities such as gripping and pinching but can also be felt at rest. Swelling occurs as the body attempts a healing response to increased wear at the base of the thumb, causing the surrounding ligaments to stretch. The resulting joint laxity causes instability resulting in additional strain on the joint's surfaces. This can also lead to deformity of the thumb joints. Stiffness can occur due to wear of the cartilage at the base of the thumb and in response to inactivity.

Treatment

For many patients the symptoms of base of thumb arthritis can be managed without the need for an injection or surgery. Effective treatment focuses on 'self-management' in which the patient uses a range of techniques to reduce their symptoms and improve their function. It is the cumulative effect of these different strategies that can help improve your symptoms over time. Early management of base of thumb arthritis can help to prevent further deterioration of the thumb and dysfunction.

Self-management techniques

Controlling your pain

Managing your pain is an important part of treatment. Painkillers and anti-inflammatory medications may be suitable to reduce your pain and should be discussed with your General Practitioner (GP) or Pharmacist to ensure they are right for you.

Thinking about pain

What you think and feel about your pain can affect how you experience pain. Negative thoughts can have a direct impact on the body e.g. tense muscles, hormonal release etc. which can often add to your level of pain. This often leads to a cycle of pain, negative thoughts and emotions and altered behaviours which often amplify the experience of pain. Changing how you think about your pain and challenging negative thinking can sometimes break this cycle and reduce your levels of pain. Utilising techniques such as mindfulness exercises, relaxation methods and positive coping strategies can often improve your perception of pain, benefitting both your emotional and physical health.

Further information is available from:

https://www.cntw.nhs.uk/resource-library/relaxation-techniques/

https://www.breathworks-mindfulness.org.uk/

http://www.painassociation.co.uk /

https://www.britishpainsociety.org/

Protecting your joints

Looking after your joints and the way you use them can reduce joint strain. Look at how you use your hands and think about how they feel afterwards. Taking steps to reduce the strain on your hands can help to reduce pain and facilitate function.

Joint protection principles:

- Respect your pain

- Find better ways of completing the task – simplify the task, shorten the duration, lighten the load
- Avoid sustained grips or static postures
- Reduce or spread the load across your joints
- Use larger joints, better protected by larger muscles, to take the load
- Reduce the effort needed – use labour saving devices
- Balance rest and activity – give the body time to recuperate

Ideas to reduce strain through your thumbs

- Spread the load - lift items with two hands instead of one.



Insulated mug



Lightweight plat

- Use gadgets which save unnecessary strain on your joints - for example jar openers, ring pull aids and key turner









- Make use of electrical devices which reduce the strain through your joints - for example an electric tin opener, food processor, electric toothbrush and power assisted tools.





- Don’t lift unnecessary weight - reduce the size of the load by making more trips or slide objects such as crockery on work surfaces rather than lifting. A wire chip basket can lift items from a pan without the additional weight of the pan and water.



- If replacing household or DIY (Do it Yourself) items look for light weight products.





- Where possible use larger joints - for example if carrying a bag avoid carrying through the small finger joints, place the handles across your forearm or use a rucksack.





- Use tools and utensils with larger grips as they will be easier to hold or operate.









- Ask yourself: are all tasks necessary? can tasks be eliminated? An example could be ironing towels or bed sheets.

Pinch grips

How you apply force through your thumb can often increase or decrease your thumb base pain. Thumb pinch in an ‘O’ shape posture is the most stable position for pinch force to be applied. Pinching the thumb in a poor posture (as below) can increase your thumb pain and

increase deforming forces on the thumb joints. Lateral pinch or ‘key grips’ should be avoided where possible to reduce excessive loading and forces at the base of the thumb.

Splints

Sometimes patients may benefit from using a splint when performing tasks that cause discomfort or to rest the thumb when it is painful. Occasionally a thumb splint may be worn at night to rest the structures of the thumb and reduce your pain levels. Splinting of the thumb can improve its stability, reduce pain and facilitate functional use of the thumb. There are a wide range of splints available from commercially produced to custom made splints. Your therapist will assess the most appropriate splint type, but a range of splints may be trialled in response to your symptoms, lifestyle and individual needs. Your therapist will guide you on the appropriate wearing schedule and ensure you are aware of the relevant exercises on splint removal, to reduce the potential for joint stiffness.

Exercise

Exercise can help to reduce joint stiffness, improve flexibility, and reduce pain. Exercise can strengthen the muscles around the base of the thumb and within the hand to support the function of the thumb.

Your therapist will advise you on the frequency and repetition of each exercise. Sometimes, exercising the thumb can be uncomfortable. If the exercises generate pain, this should last no longer than 24 hours before recovery. Exercise should not be repeated until your pain has resolved and may require a rest period before re-commencing. If discomfort persists for more than 24 hours after exercising, contact your therapist for advice.

For specific exercises please refer to the leaflet on exercises for base of thumb pain. These exercises are performed in a specific sequence to ensure graded and appropriate strengthening of the thumb.

Thermal modalities

Some patients find the use of hot or cold therapies can be helpful in reducing their thumb base pain. Generally, joints that feel hot or swollen often benefit from cold treatments such

as ice or cold-water bathing. Stiff joints often benefit from heat therapy such as heat packs, wax baths and warm water soaks to ease tight muscles, improve circulation and aid joint suppleness. Speak with your therapist if you are unsure which thermal modality to use.

Diet

For overweight patients, taking steps to lose weight can significantly reduce the strain on your joints. Healthy eating, reducing levels of sugar and fat in your diet and taking regular exercise can help patients lose weight and feel better in themselves. Balanced levels of vitamins and minerals, a reduction in saturated fats and an increase in polyunsaturated fatty acids (Omega 3) can improve the symptoms of Osteoarthritis.

Conservative treatment (non-surgical) of thumb base pain can be beneficial for many patients and may delay or even prevent the need for surgical intervention. Adopting new techniques and incorporating these into your daily life takes time and often this adaptation is a lifelong process. Long term use of these self-management techniques can help patients manage their pain and improve their function.



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