

Osteoarthritis of the hand

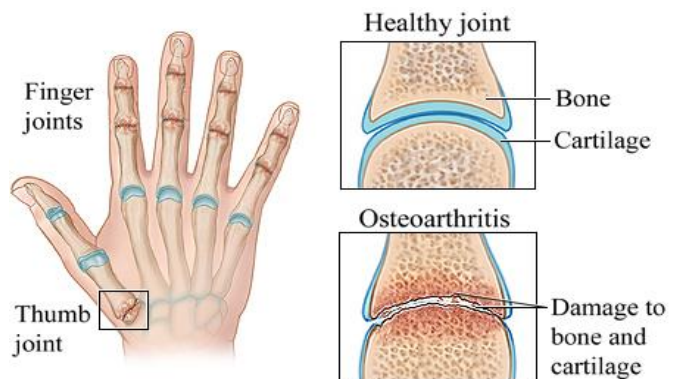
What is osteoarthritis?

'Osteo' means bone and 'arthritis' means joint swelling (inflammation). Osteoarthritis (OA) is a progressive disorder where there is degeneration of the protective surface of the bones in the joint, which causes pain. It is often inherited. Although there is no cure for osteoarthritis, there are many ways in which you can relieve your symptoms and reduce the likelihood of progression.

Causes of hand osteoarthritis

Osteoarthritis of the hand is a common joint problem. OA in the carpometacarpal joint (CMC joint) at the base of the thumb and in the small joints of the fingers are the most common causes of pain in this area.

OA in the hand can be related to repetitive precision loading (pinch-type activities) and strong grip, as well as other factors such as obesity and hormone changes.



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The anatomy (bones and ligaments) of the base of your thumb allows us a large range of movement, but makes the joint vulnerable to overload and degeneration (wear and tear). A good point to remember is that any pressures placed through the tip of the thumb during pinching activities are multiplied by around twelve times through the CMC joint.

Symptoms of hand osteoarthritis

Pain is the primary symptom associated with hand osteoarthritis. Initially, pain is present with movement or activity (e.g. turning a key, opening a door, lifting a cup). If the osteoarthritis progresses, pain may also be present at rest. Other symptoms of hand osteoarthritis include:

- Difficulty gripping objects
- Swelling, stiffness, or tenderness of the small joints of the hand
- Enlarged appearance and altered posture of the CMC joint
- Nodular (bumpy) formations on the joints of the fingers
- Limited range of motion

Treatment of hand osteoarthritis

Early osteoarthritis of the thumb can be effectively managed using non-surgical treatment options. These treatments aim to reduce the pain caused by wear and tear of the joint:

- Some medicines can help to reduce inflammation, swelling and pain. You should discuss this with your GP.
- You can see the team in Hand Therapy for advice on joint protection, splinting and exercises.
- Steroid injections can be given into the joint.

If you have worsening symptoms, you should discuss other options with your GP or consultant.

Hand Therapy

Splinting:

The goals of splinting are to increase stability, reduce pain, decrease inflammation, improve function, and reduce the mechanical stress that may be causing the instability. Splinting generally will not prevent abnormal joint posture, but can provide rest and support.

Your therapist will discuss with you the type of splint or support that may be helpful for you, and when and how to use them.

Joint protection:

Joint protection can reduce joint damage, preserve range of motion, and lessen osteoarthritis pain by reducing the general stress and strain on the joint. The following principles will help you:

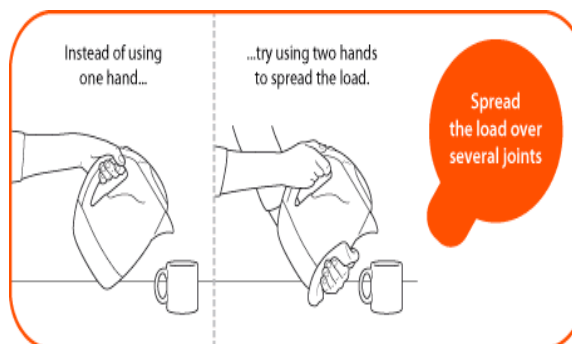
- Respect pain: if you are experiencing pain after an activity, you must consider that you have been too active or have done too much.
- Pace your activities through the day. Spread physically hard jobs (such as housework or mowing the lawn) at intervals through the day, rather than tackling them all at once.
- Avoid any activity that causes pain and find a better way of accomplishing the task. Avoid a tight grip that strains joints and muscles. Avoid a prolonged or continuous grip. Small joints can take little weight, so gripping a pen or cutlery can be hard work. Holding a larger object involves more joints, so spreads the grip.
- Make handles larger with padding, e.g. sponge tubing for pipe lagging. A solid surface is harder to grip than a soft surface; also a larger surface area means less strain. Wear padded gloves when gardening.



- Spread the load over several joints. Picking up an object with two hands halves the load on each hand.
- Use adaptive devices, i.e. larger grips on peelers, scissors, built-up key turners and pens, and an electric tin opener and toothbrush.

Domestic tasks:

- Straining vegetables: instead of lifting and tipping the pan, place vegetables in a wire basket in the pan to cook. When ready they can be lifted and drained in the basket. Leave the saucepan to cool before moving it.
- Kettle: use a plastic jug to fill the kettle from the tap and only fill the kettle up as required. A kettle tipper can be used, or a small lightweight travel kettle. Also, kettles with the handle over the top have been reported to be easier to lift using two hands rather than the kettles with the handle on the side.



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