

Thumb Arthritis

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Understanding a Common Problem

Many of you experience it every day – annoying pain in your thumb which prevents you from performing simple tasks – opening a jar lid, twisting a key in a lock, or even buttoning your shirt or blouse. It can be an aggravating daily occurrence. Thumb pain that occurs whenever you pinch or grasp something is often due to arthritis in the joint at the base of the thumb. This joint is called the carpometacarpal (CMC) joint. It is different than most joints in that it allows your thumb to have a wide range of motion. However, it is also prone to the wear and tear and loss of its cushion, or cartilage, over time. Arthritis at the base of the thumb (also called basal joint arthritis) is more common in women and typically begins after age 40.

Thinning of the cartilage

The CMC joint is made up of two bones – a small bone called the trapezium and a longer thumb bone called the first metacarpal. Arthritis develops when the cartilage that covers these bones wears thin and deteriorates. Studies have shown that when you pinch with only one pound of strength between your thumb and index or pointer finger, the CMC joint bears between 10 – 12 times that. Thus, when the cartilage wears out, you experience pain.

The pain is usually gradual – a minor irritation at first with gripping or pinching often leads to swelling and a bump at the base of the thumb. This “lump” is the joint actually partially dislocating out of socket. It may be tender to the touch. Over time, you may begin to avoid certain tasks that seemed particularly easy to do in the past, such as opening a jar lid, holding a frying pan, or twisting a key in your car’s ignition. Some people may even feel a cracking or clicking when moving the thumb.

Early treatment

There are some easy things you can do to alleviate your pain. These include:

- *Rest/Avoidance* – try to avoid painful activities whenever possible.
- *Cold/Heat* – applying ice or heat to the joint for 15 minutes at a time may reduce pain and swelling
- *Medicine* – over the counter anti-inflammatory medicine such as aspirin, ibuprofen (Advil, Motrin), naproxen (Alleve), or prescription-strength drugs may be of benefit, especially during acute flare-ups. Acetaminophen (Tylenol) may help with the pain but does not reduce inflammation.

- *Splint/Brace* – a special thumb immobilizer may keep the joint still enough to reduce pain and inflammation
- *Assistive devices* – simple kitchen gadgets or pens with larger, cushioned handles or grips can support and protect joints to help prevent further injury and reduce pain.
- *Steroid injection* – in some instances and in those people who have severe pain but do not want surgery, a corticosteroid shot directly into the CMC joint can help alleviate and sometimes permanently remove the pain. The results may be short-lived. Generally, you can receive 3-4 injections in a 6-12 month period.

Surgical reconstruction

If these treatments fail to relieve the pain and return you to better functional use of your hand, than surgical reconstruction is a good option. The reason to have surgery is for relief of pain, as thumb pain has been proven to be extremely reduced and often eliminated with outpatient surgery.

There are many different procedures that can be done. However, most hand surgeons would agree that removal of the small bone (the trapezium) is paramount to a good result. After this bone is removed, typically a tendon from the wrist, which will not be missed, is moved or transferred to the thumb base to stabilize or strengthen the thumb. Sometimes a pin is used. In younger people who do heavy labor, fusing or stiffening the joint is an option. New techniques are being invented every day, such as replacing the joint much like a knee or shoulder. Early results look promising, but we won't know the long-term results of these procedures until several years from now.

After surgery, the thumb is immobilized for 3-5 weeks, at which time the thumb can be gradually used for everyday tasks and for range of motion. Strengthening typically begins at 2 months after surgery, and most people return to full activities by 3-6 months. However, most studies show that improvements in strength and range of motion will continue for a year after surgery.

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