

Arthritis at the base of the thumb

Jagdeep Nanchahal BSc, PhD, MBBS, FRCS (Plast), FRACS
Professor of Hand, Plastic and Reconstructive Surgery
Imperial College, University of London

www.jnanchahal.com

What is Arthritis?

Any inflammatory or destructive condition of a joint is called arthritis. In a normal joint, the bone ends are covered with cartilage to provide smooth gliding surfaces. With wear and tear or degenerative (osteo) arthritis, the cartilage is worn away and the exposed bones rub together, leading to pain. Women tend to be affected more commonly than men, particularly in middle life. Previous injuries may predispose to the condition.

The main symptom of arthritis at the base of the thumb is pain, particularly during pinch grip. As the condition worsens, there may be localised swelling and the bone may appear to have slipped out of place.

Diagnosis

The history is suggestive of the condition and examination reveals localised tenderness at the base of the thumb. Moving the bones whilst pushing them together usually reproduces the pain and a grinding sensation. X-rays confirm the extent of the arthritis and any slipping of the bones out of position due to attenuation of the ligaments.

Treatment

Early in the course of the arthritis, when the pain is relatively mild and intermittent, the symptoms can be controlled by using a special splint, which limits the movement of the thumb basal joint. The splint can be worn only when performing the activities which produce the symptoms. Anti-inflammatory tablets may help and it is sometimes necessary to inject a tiny amount of steroid into the joint to reduce the inflammation.

More severe cases require surgery. The exact operation depends on the extent of the arthritis. If the problem is extensive, the bone called the trapezium is removed and a segment of a tendon at the wrist is used to reconstruct the attenuated ligament and provide support for the thumb. After surgery, the hand is placed in a plaster of Paris splint and it may be necessary to place a temporary wire across one of the joints of the thumb to stabilise it.

After surgery

The plaster of Paris splint, stabilising wire and stitches are left for 2-3 weeks. The hand must be kept dry during this period but you can bathe by placing a plastic bag over the hand. The dressing is not usually changed during this period. A long-acting local anaesthetic is also used at the time of surgery to provide postoperative pain relief. The numbness lasts for several hours and simple pain killers are all that are necessary afterwards. You should avoid aspirin as this may cause bleeding. It is very important you keep your hand elevated as much as possible, at least during the first week. During the daytime you can wear a sling and at night the hand can be rested on a couple of pillows. This helps reduce the swelling and postoperative discomfort. It is essential that you keep your fingers moving during this period and come out of the sling every few hours to exercise your elbow and shoulder. When the dressings and splints are removed you will be shown the exercises

necessary to regain a full-range of movement. The hand therapist will fit you with a removable lightweight plastic splint to be used during the day initially during heavy activities. A splint is worn for a total of approximately 3 months. The surgery relieves pain although pinch grip strength does not return to normal after the operation. However, hand function is improved because the pain is resolved.

Possible complications

- Bleeding and infection can occur, but only very rarely.
- Sympathetic dystrophy, which presents as pain, swelling, stiffness and discolouration, is uncommon and is treated by intensive hand therapy.