Thumb Base Arthritis

One of the most complicated joints in the human body is the joint between the trapezium bone and the thumb metacarpal bone. This joint lies at the base of the thumb muscles where the thumb meets the wrist. The surface of the trapezium is saddle shaped, and the thumb metacarpal can move in different directions over it, like the universal joint in a car axle. This gives the thumb its range of movement, and it is our thumbs that contribute to human beings being much more skilled than other primates.

Because of the movement and forces that go through the joint, it is very susceptible to osteoarthritis, where the cartilage becomes worn and thin. The body reacts by growing additional bone, which can produce protruding osteophytes. Although osteoarthritis is ‘wear and tear’, it can follow a fluctuating course, rather than consistent deterioration, as there is a significant part of arthritis caused by inflammation, which can resolve.

Osteoarthritis of the thumb base is common over the age of 45, especially in women, but can develop at any age, particularly if there has been heavy use of the hand, or an injury even many years earlier.

Symptoms consist of pain at the base of the thumb, which can be quite vague or hard to localise. It is worsened by pinching or gripping, for example when turning keys or opening jars. This can be very disabling. As the disease progresses then deformity of the thumb can arise.

Treatment

Treatment usually starts with simple painkillers and anti-inflammatory medication. By avoiding painful activities, acute flare-ups may settle.
Splints can be helpful, and can be purchased ‘off the shelf’ or custom made by a hand therapist. Rigid splints provide good support, but flexible supports are more practical. Strengthening exercises can also be valuable.

Steroid injections are helpful for most patients, and can settle down a mild case completely, or provide a useful period of relief for more severe arthritis. Injections can be repeated, but do carry a small risk of thinning the skin or making it paler.

Surgery is the final treatment for patients who have problems not solved with conservative treatment. The most common operation is a trapeziectomy, where the trapezium bone is completely removed. This reliably removed the pain, but it does take about 12 weeks to return to all normal activities. I usually do a ‘sling’ procedure to stabilise the thumb after removing the trapezium, but this is not necessarily required. In some patients, I may fuse the joint to remove the pain rather than removing the trapezium.

All treatment options will be discussed fully with you at your consultation.

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