

# Thumb Joint Replacement Surgery

Arthritis at the base of the thumb is a very common problem. It causes pain in the thumb, and also with time will lead to a deformity of the thumb, limiting its range of motion.

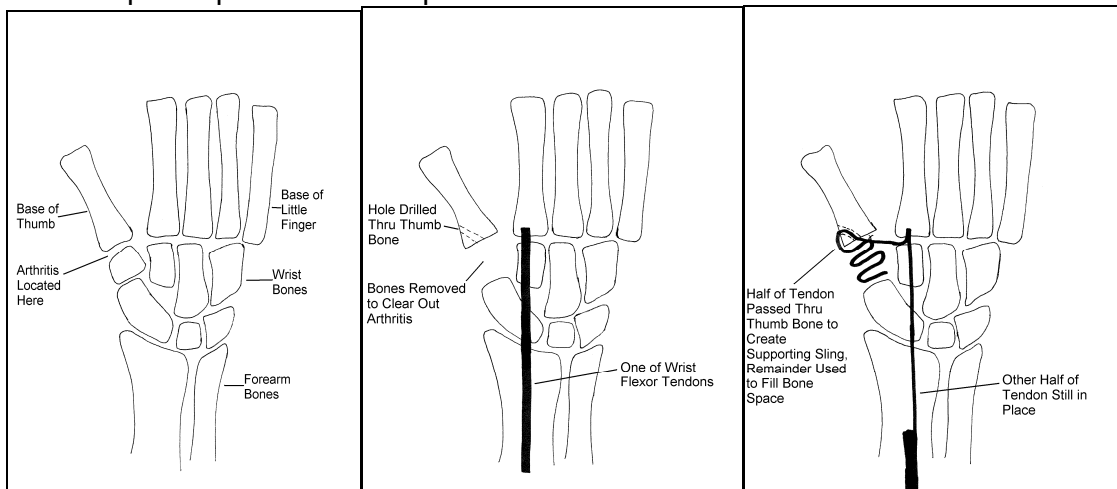
## Treatment Options

Unfortunately at this point in time we have no non-surgical treatment that will eliminate the arthritis. Splinting of the thumb and wrist during activities, and taking anti-inflammatory medicines, may help relieve the pain.

Cortisone injections can also improve the pain from arthritis at the base of the thumb, but the cortisone almost always gives only temporary relief. Also, only a limited number of cortisone injections can be performed, because repeated cortisone injections can lead to further degeneration of the arthritic joint.

## Joint Replacement Surgery

When the above treatment options are no longer appropriate, thumb joint replacement surgery may be performed. This operation involves removing the arthritic joint, and joint reconstruction is then performed. Several techniques have been described to perform this reconstruction. I (and most hand surgeons) prefer to do this reconstruction using natural tissue found in the hand and forearm. The diagrams below show how this is done. The small bone in the wrist on which the thumb rests is removed, along with the very base of the bone at the bottom of the thumb (middle diagram). One of the tendons that flexes the wrist is then split longitudinally, leaving half of the tendon to continue its usual function. The other half-tendon is then passed through a hole at the base of the thumb bone and brought back and sewn to itself, thereby creating a sling that supports the base of the thumb (right diagram). The rest of that half-tendon is wound up and placed in the space from which the small wrist bone was removed.



This operation is very effective at relieving the arthritic pain, and also usually results in good thumb range of motion. This operation does not result in normal thumb strength however. Most people with thumb arthritis have lost about half of their normal thumb strength, and after this operation people usually end up with about the same strength that they had prior to the operation, which is still about half of normal strength.

For the first month after the operation your hand and arm will be in a cast-type dressing. During the second month we usually send you to the hand therapist to work on range of motion exercises, and a removable splint is used. The third month is usually devoted to strengthening exercises. It usually takes about three months after the operation before you can return to normal hand activities. However, the reconstructed thumb joint will always be weaker than a normal joint, so heavy pinching activity with the thumb will have to be avoided permanently.

### **Risks of Surgery**

Like all operations, thumb joint replacement surgery has some risk of infection and bleeding problems. Some other possible complications are listed here, but of course there may be other rare complications in addition to those listed.

- There is a nerve that passes right over the arthritic joint to provide sensation to the back of the hand. There is some chance that this nerve could get injured and lead to persistent pain or decreased sensation on the back of the hand.
- It's possible that the thumb may have limited range of motion or the reconstructed thumb joint may be unstable.
- Although this operation is usually quite effective at relieving arthritic pain, it's possible you may go on to have persistent pain after the operation.
- Pinch strength is diminished when compared to normal as described above.
- There are also risks due to the anesthesia administered during the course of the operation. These risks could include pneumonia, blood clots that could break off and go to the lungs causing illness, and heart attack. Your anesthesiologist will discuss these issues with you just before you go to the operating room.

I have read and understand this material. I wish to proceed with Thumb Joint Replacement Surgery.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_