TWIN CITIES ORTHOPEDICS

Basilar Thumb Joint Arthritis
Surgery Hand, Upper Extremity, Microvascular

What is it?

Basilar thumb joint arthritis is the most common arthritis affecting the hand. It is more common in women than men and often more symptomatic on the non-dominant hand. It appears to be a wear-and-tear type of mechanical deterioration of the joint, and not always associated with arthritis in other joints. The base-of-the-thumb joint is a unique saddle joint that allows thumb mobility in several planes. The wear and tear begins when the stabilizing ligaments become loosened. The joint becomes unstable and partially dislocates. This creates an asymmetric wear to the joint (much like a car tire that is out of alignment), and the cartilage (joint surface or cushion) begins to wear out. Pain can arise from either the instability or arthritis or both.

What are the symptoms?

Symptoms are typically pain experienced when using the hand for pinching, gripping and grasping. The pain may be of varying degrees and can be progressive over time, or fluctuate with the demand placed on the hand. Activities like turning the car key, opening doors or jars, golfing, or even holding a hand of cards may become difficult. Mechanical grinding, catching or progressive swelling, stiffness and deformity can also develop as the arthritis progresses to bone-on-bone articulation. As the arthritis worsens, the pain may become more constant and aggravated with simple activities of daily life.

How is it treated?

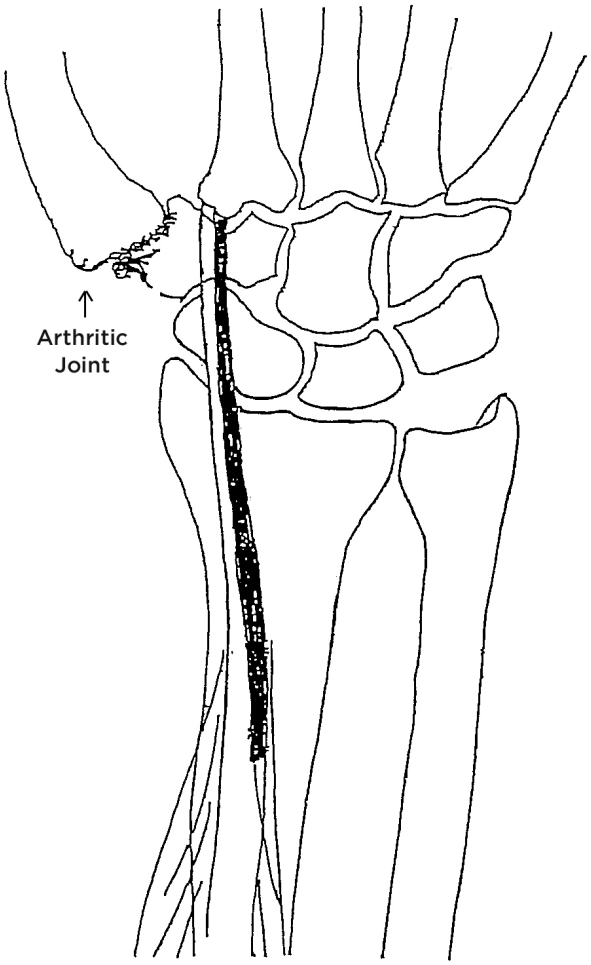
Treatment begins with activity modification and rest to reduce the stress on the joint as well as anti-inflammatory medications to reduce the painful inflammation from the arthritis. Splints can be fabricated to help stabilize the joint and provide some pain relief. Cortisone injections are often effective in reducing the pain from the arthritic joint. The response to the injections may vary. Some individuals may only get minimal temporary relief, while others may get long lasting relief. None of these treatments will replace the lost cartilage.

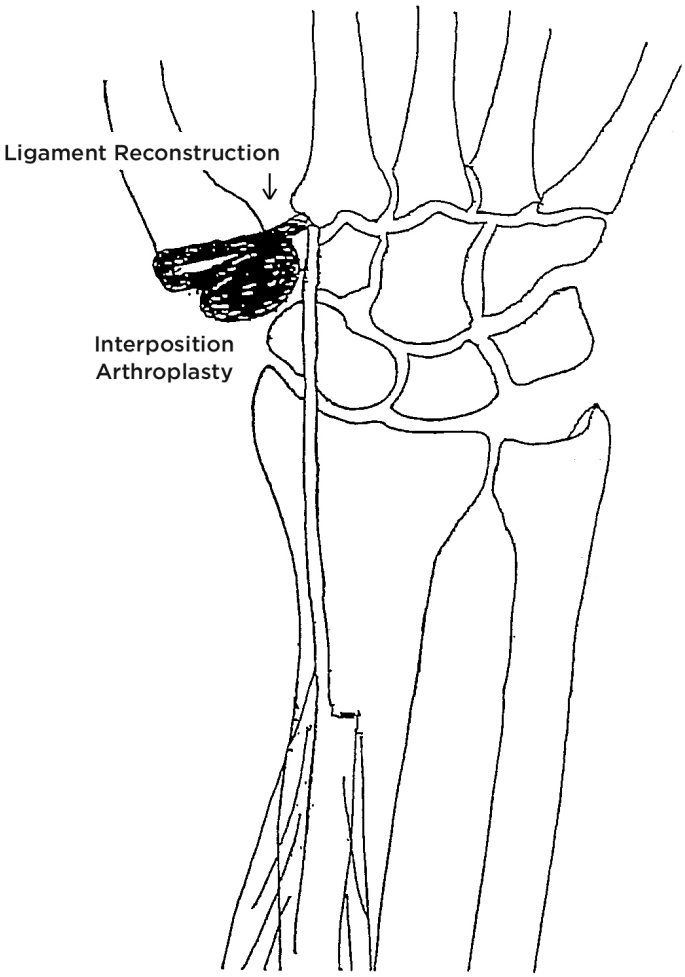
Will surgery help?

Surgical treatment is an option for individuals that continue to have pain. If instability alone is the source of pain and the joint surface is preserved, a ligament reconstruction to stabilize the joint can provide good relief. More commonly, however, the joint surface is destroyed or worn out and a new joint or cushion needs to be created. The surgical reconstruction has three parts; remove the arthritic joints, rebuild a stabilizing ligament, and create a new cushion for the joint. It is very effective in alleviating the pain restoring motion, function and strength.

How is the surgery done?

The surgery is performed as an outpatient (day surgery) and usually lasts about an hour. Regional anesthetic (numbing just the arm) along with sedation or a brief general anesthetic can be used. The arthritic joint surfaces are removed. This is done by removing part or all of the trapezial bone (small bone at the junction between the thumb and wrist). Half of a tendon in your forearm is used to construct a new stabilizing ligament (the other half works just fine with no functional loss). Part of the tendon is sutured into a small cushion which is placed into the space where the bone was removed, creating a new joint surface. A temporary pin is placed to stabilize the reconstruction while it heals in the cast.





Post-Operative Protocol

WEEK 1
Surgery is done as an outpatient. It is important to elevate the hand above the level of your heart. Gentle movement of the fingers is important to prevent too much stiffness. You may use your hand for gentle activities like eating, brushing your teeth, reading the paper. At 7-10 days your sutures will be removed and wound examined.

WEEK 1-5
A short-arm cast including your thumb will be applied after your sutures are removed. The pin will remain covered by the cast. Continue to elevate the hand as much as possible if you notice swelling. You may continue to use the hand for light activities and gentle finger movement. No gripping, grasping or lifting with the hand.

WEEK 5-9
The cast will be removed. The pin is pulled in the office. A custom removable splint will be fabricated and you will begin therapeutic exercises to regain the range of motion. You may begin using the hand for more activities as you gain motion and comfort, but still avoid gripping, grasping or lifting.

WEEK 9-12
Strengthening exercises are initiated and activities are advanced as comfort allows. No splint is required, however, if you notice pain after higher demand activities it is wise to reduce the activities and re-apply the splint for a few days for comfort and rest. Your strength will improve over the next several weeks to months.

After 12 weeks you may resume activities such as golf, tennis, gardening, knitting, or any other leisure activities you enjoy!