

Arthritis at Base of Thumb

The basilar joint, or the first carpometacarpal joint of the thumb, is formed by a small wrist bone called the trapezium and the thumb metacarpal bone. The unique shapes of these bones permit the thumb to move in and out of the plane of the palm, as well as bend across the palm to oppose the other fingers. Arthritis involving the base of the thumb is far more common in women than in men, and typically occurs after the age of 40. A prior history of fracture or other injury to the joint may increase the likelihood of developing arthritis.

WHAT ARE THE SIGNS AND SYMPTOMS?

The earliest symptom of basilar joint arthritis is pain with activities that involve pinching. These include opening jars, doorknobs, car door and turning keys. Prolonged or heavy use of the thumb may produce an aching discomfort at the base of the thumb. Changes in the weather may produce similar symptoms. As the disease progresses, less stress is required to produce pain. Pinch strength diminishes. Activity-related swelling may develop. Later, any motion of the thumb, even without stress, may become painful. Eventually the joint begins to appear larger and out of place. This is usually accompanied by decreased thumb motion. Often the most difficult maneuver is grasping objects.

HOW IS THE DIAGNOSIS MADE?

A careful history by the physician will give a high index of suspicion of basilar arthritis. Inspection of the thumb will sometimes reveal a tender prominence at the base of the thumb. As a diagnostic test your physician may press the thumb metacarpal against the trapezium and move the joint. This grind test will usually reproduce the symptoms of pain, and may produce a gritty sensation called crepitation. This represents bone on bone contact, which also may show up on x-ray.

HOW IS TREATED?

Initially, the symptoms of basilar joint arthritis will respond to limited activities and rest. If this fails, use of an anti-inflammatory medications and a protective splint may be of benefit. Additional relief of symptoms can sometimes be achieved by a cortisone injection into the joint. When conservative methods of treatment no longer provide benefit, surgery may be warranted.

The goal of surgery is to decrease pain and preserve motion in the thumb. This is accomplished by removing the destroyed joint and creating a substitute joint called an arthroplasty. Unrestricted use of the thumb is usually allowed at 12 weeks from surgery.