ARTHRITS AT THE BASE OF THE THUMB

Other names: First CMC (**C**arpo-**M**eta**C**arpal) Arthritis *ICD9 716.14*

Definition:

Anything thing that causes irritation or destruction of a joint is termed arthritis. In normal joints, cartilage covers the ends of the bones and allows them to glide smoothly and painlessly over one another. When this cartilage wears out, the ends of the bones rub on one another, which is often painful. The process may be initiated by normal wear and tear or after some even unrecognized traumatic event. Regardless of the cause, the degenerative process is progressive until the joint is eventually destroyed.

The base of the thumb is the second most common area of hand arthritis. It is formed by the small wrist bone called the Trapezium and the first bone of the Thumb called the First Metacarpal. These two bones have unique saddle shapes that allow the wide range of motion at this joint.

Affected Persons:

More common in women then men. Onset usually after age 40. Past injuries to this joint, fractures and sprains, even if incidental, increase the chances of developing this type of arthritis. While repetitive grasping activities are implicated, they have not been shown conclusively to be the exclusive causative event.

Symptoms:

Initial symptoms are pain with gripping and or pinching activities. Usually noticed when turning a key in a lock but also with opening jars and turning doorknobs. Changes in weather may also cause problems. As the disease progresses, less activity may be needed to produce pain. Pinching strength decreases, and the base of the thumb may become swollen and even look like it is out of joint. With further progression the joint motion becomes limited.

Diagnosis:

Your history of hand use including any injuries will provide your physician with reasons to suspect arthritis may be present. Inspection may reveal a lump in the base of the thumb. Your physician will perform tests to confirm the diagnosis. Pressing directly on the joint at the base of the thumb may be painful. Forcing the thumb against the wrist bone while moving the joint may also cause pain and may be accompanied by a gritty sensation. The pain and gritty feeling are caused by the bones rubbing on each other. In late stages the loss of motion at the base of the thumb will be compensated for by an increase in motion at the other joints of the thumb, most notably overextension in order to grip larger objects. X-rays will show the extent of the degenerative changes in the joint.

Treatment:

Cases diagnosed early usually respond to non-surgical treatment. This may consist of a splint to limit the motion of the thumb, Anti-inflammatory pills to decrease the irritation in the joint and possibly a steroid shot into the joint. More severe cases often require surgery. This usually entails removing all or a portion of the offending (arthritic) wrist bone, filling the wrist bone's place with a bumper and re-suspending the base of the thumb.

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