



Getting a Grip on Carpometacarpal Arthritis

By John Dietrich, M.D.

After carpal tunnel syndrome and trigger finger, the third most common condition we treat at Crystal Clinic Summit Hand is carpometacarpal (CMC) or basal joint arthritis. This arthritis affects the base of the thumb.

As with other forms of arthritis, there is a loss of cartilage that cushions the bones. Perhaps the best way to understand this is to imagine two tires running against each other. Think of the rims as bones and the tires as cartilage, which absorbs shock. Over the years, the tires wear away and leave only the rims. This is essentially what happens as we age. When cartilage is lost, we end up with bone on bone, causing pain and weakness in the joint.

Thumb arthritis is accelerated by overuse and repetitive pinching motions over the years. Other causes include fractures or dislocations of the CMC joint at some point in life.

From a young age, we are ingrained on how to do certain tasks and activities with pinch rather than grip. Grip uses the entire hand and involves muscles of the forearm and the back of the hand to give power to squeeze. Pinch involves only the thumb and either the index or long finger or both.

We primarily see CMC arthritis in women, and there are many reasons for that. Structurally, men have a bigger ligament that holds the thumb. Women lack this ligament and have looser thumbs. Other factors include occupations or hobbies, such as cooking or gardening, that require a pinching motion. Repetitive tasks over a long period of time wear out the joint.

Typically, when someone with CMC arthritis comes to our office, it's because they are experiencing pain along with decreased grip and pinch, and they have noticed that they're dropping things

more frequently or having difficulty performing simple tasks that require pinch. We confirm the diagnosis by getting their medical history, conducting a physical exam and ordering X-rays.

Once CMC arthritis is identified, we start with conservative, nonsurgical treatments. These may include splinting, cortisone injections and activity modifications.

Simple changes in your home can go a long way to improve this condition. One of the best things you can do is to replace items that have small handles with thicker ones that fit in the palm of the hand and require gripping rather than just your thumb and fingers. By gripping rather than pinching, you use your hand in a more biomechanically advantageous way.

Should these nonsurgical treatments fail, then we would consider surgery, known as CMC arthroplasty. This procedure removes the arthritic bone and suspends the thumb with a tendon from the patient's forearm. People who have this surgery are usually happy because the operation is predictable in relieving pain. For younger patients, we can take a different approach by building a ligament for the thumb, which will make the thumb more stable, but may not completely alleviate the pain.

If you think you may have CMC arthritis, schedule an appointment with one of our specialists at Summit Hand. Other general physicians who don't see hand conditions on a regular basis don't understand the pathology and biomechanics the way we do. Plus, we have certified hand therapists who specialize in helping people select the most appropriate splint for their hands. Seeing a certified occupational therapist who has knowledge and expertise to help educate you is well worth it.



Dr. Dietrich is a board-certified, fellowship-trained orthopaedic surgeon. He earned his medical degree at the University of Michigan. He completed his residencies in general surgery at William Beaumont Hospital in Royal Oak, Michigan, and in orthopaedic surgery at the University of Pittsburgh. He served his fellowship in hand, upper extremity and microsurgery at Allegheny General Hospital/University of Pittsburgh. Dr. Dietrich specializes in surgery of the hand and upper extremity with an interest in wrist disorders, fracture care, peripheral nerve surgery and arthritis. He has been a physician since 1983.



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