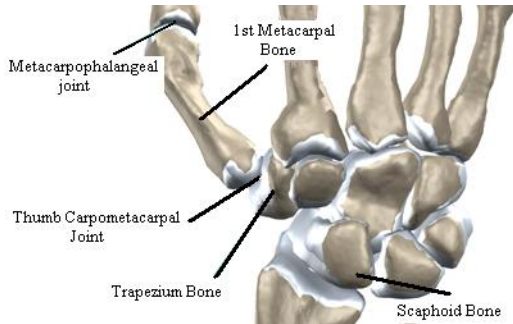


Thumb Carpometacarpal Arthritis

Thumb CMC Arthritis:

Idiopathic thumb basal joint aka thumb CMC arthritis is a result of anatomic factors that predispose the CMC joint instability, such as joint configuration and ligamentous laxity. CMC joint instability results in shear forces at the joint surfaces and subsequent joint degeneration.



Prevalence:

Idiopathic thumb CMC arthritis is most common amount women 40-70 years old. Women are 15 to 20 times more likely than men to have thumb CMC arthritis; this is most likely secondary to increased joint laxity found in women when compared to men.

Clinical presentation:

Patients present complaining of pain at the base of the thumb with pinch and gripping activities, i.e. turning a key, opening a jar or door. Decreased grip strength is also a common complaint. Decrease strength and gripping pain come early in the disease however as the disease progresses and further degeneration of the CMC joint occurs the thumb will begin to collapse into the palm and secondary thumb metacarpophalangeal (MCP) joint hyperextension occurs. Hyperextension at the MCP seen in end stage CMC arthritis occurs to compensate for the loss of motion at the CMC joint.

Diagnosis:

CMC arthritis is diagnosed through physical exam and radiographic evaluation. CMC treatment is determined by the stage of the disease. There are 4 stages of CMC arthritis, they are as follows:

Stage I: Characterized by mild joint narrowing, mild joint laxity, without CMC joint subluxation or osteophytes.

Stage II: Consists of joint narrowing and sclerotic changes with presence of osteophytes and mild to moderate subluxation. In this stage you may see changes in the fist MCP joint, i.e subluxation.

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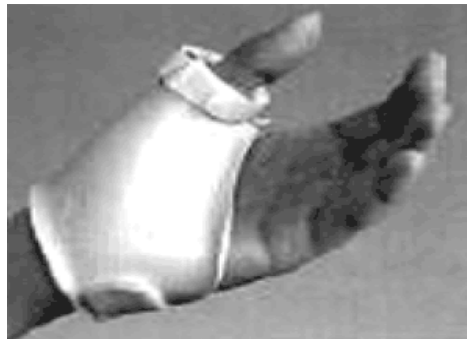
Stage III: Continued joint narrowing with cystic changes and sclerotic bone formation. Prominent osteophytes are present with moderate subluxation at the CMC joint and subluxation at the MCP joint.

Stage IV: All the components of stage III along with destruction of the scaphotrapezium joint. At this stage the CMC joint is usually fixed and some patients may have little to no pain.

Treatment:

In early stages, stage I and sometimes stage II, conservative treatment should be considered. Conservative treatment consists of a period of thumb immobilization in a removable splint, see picture below, and use of NSAID's. If splinting fails to relieve the pain then a corticosteroid injection may be performed. Of note, corticosteroid injections will not alter the progression of the disease but it may provide a few months of relief. If conservative treatment fails to provide relief and pain is making it difficult for the patient to perform daily functions or disease has progressed to stage III or IV then surgical treatment in healthy patients should be considered.

Thumb spica splint:



Surgery:

The surgical procedure performed by Dr. Drake is a "Carpometacarpal interpositional arthroplasty with Palmaris tendon graft". He or your health care provider will speak with you about the specifics of the surgery at your office visit.

Preoperatively:

Prior to surgery you will need a preoperative physical by your primary health care provider. The pre operative physical will need to be performed within 14 days of surgery. You will need to call and make this appoint-

ment with your primary doctor after you have received your surgical date. The night before surgery, after midnight, you will be asked not to eat or drink anything, if these instructions are not followed your procedure will have to be cancelled. If you are instructed by your primary doctor to take medication the morning of surgery, this is to be done with a small sip of water. On the day of surgery, you will need someone to drive you to and pick you up from surgery. At discharge you will be given several instructions on care of your dressings and how to take your pain medication. If you have any questions please ask the medical staff prior to discharge. If at any time after your discharge you have questions or concerns please contact your surgeon.

Post operative course:

Day of surgery: After the surgery, you will be placed in a thumb spica cast which will allow movement of all fingers except your thumb. You will be discharge with pain medication and specific instructions on use. Use the medication as indicated to get the best possible pain relief. You will be issued a sling to use for elevation of the arm. It is very important to elevate your arm at all times, even during sleep, this will help to decrease swelling and pain in the hand. If your have a regional block for pain control it will be very important to use your sling until all sensation and function have returned in the surgical arm. Avoid jewelry and tight clothing on the surgical side for 5-6 weeks after surgery.

Day 2-14: The cast which was applied post operatively will remain in place for 2 weeks. This cast must be keep clean and dry at all times. It will need to be covered with a water tight covering during bathing to prevent any water from entering the cast. You will be expected to actively move all joints of your free fingers, through their full range, every hour while awake. This activity helps to decrease swelling, pain and maintain function. The sling you were given should be worn until your swelling and pain have decreased significantly. You will be expected to range your elbow and shoulder on the surgical side every hour while awake to prevent stiffness from disuse.

1st post operative visit: The cast will be removed. If your wounds have healed your sutures will be removed at this time. You will have a ball covering a pin, it looks like a bead, that will be on the outside of your thumb. This will be cleaned but will not be removed until your second post operative visit. Once your wounds have been managed you will be placed back in a thumb spica cast for an additional 3 weeks (you will be in cast for a minimum of 5 weeks). If you still require pain medication at this time it will be addressed by Margaret Williams PA-C and the appropriate prescription will be is-

sued.

Weeks 3-5: Continue finger, elbow and shoulder exercises to maintain function. Keep the cast clean and dry. You may **not** at any time get your cast wet. If the cast becomes wet at any time please call our office 952-920-0970 and you will be directed to a medical technician/ cast technician to assist you.

2nd post operative visit: The cast is taken off and the pin in your thumb is removed in office. Light dressings are place over the pin site. All splinting is discontinued at this time. Keep the hand clean and dry for another 48 hours after the pin is removed. After 48 hours you may return to normal bathing. You will be started with a hand therapist to regain your range or motion and strength. You will be expected to see the therapist twice a week for 4 weeks. Prior to leaving the office you need to make an appointment to see Dr. Drake in 6 weeks for final follow up.