

THE MetaGrip® THUMB CMC ORTHOSIS

SIZE IT, SQUEEZE IT, AND USE IT...

For the MetaGrip® to be a successful solution to thumb CMC joint pain, it must be correctly SIZED and SQUEEZED!

Sizing key

The size of the thenar eminence varies and there is no way to measure it accurately. The ideal way to determine the correct size for your patient is to have all three sizes of the MetaGrip® available in your clinic for patient trial. Some individuals have a very slender hand but well developed thenar muscles and may do best with the next larger size. The sizing chart is a guideline as a starting point for fitting.



The secret is in the SQUEEZE

The metal insert is manually squeezed so it snugly fits the patient's thenar muscles when relaxed (and in the ideal posture.) We suggest that you gently open the curved metal insert before the first application of the MetaGrip® orthosis. You only need to squeeze it the FIRST time it is applied and then it fits your patient precisely! (See online HandLab video for application technique.)

COMMON CLINICAL QUESTIONS

1. What if there is a pressure area over the dorsal aspect of the base of the thumb?

This is a common challenge with the fitting of all thumb CMC orthoses. We suggest that you open the metal insert widely before application and then bend (squeeze) the insert so there is no pressure on the bony prominences. Additionally, you may want to add a thin layer of self-adhesive silicone gel sheeting to the inside of the MetaGrip® BEFORE squeezing the metal insert for those slender patients with thin subcutaneous tissue. Additionally, advise patients NOT to pull the straps as tightly as possible, as that maximizes pressure on any dorsal bony prominences.

2. Can I modify the MetaGrip®?

- The MetaGrip® is made of a high temperature plastic and cannot be remolded or adjusted with heat. Although it is possible to cut the material, doing so voids the warranty and the resulting sharp edge will need smoothing.
- The metal insert can be reshaped a number of times but excessive reshaping will cause the metal to fatigue and can result in breakage of the metal.
- The MetaGrip® is like a new pair of shoes...it may take some "wearing in" for the tissues of the hand to become accustomed to it.

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3. The patient complains of pain at the thumb CMC joint, but the MetaGrip® does not cover the joint---why not?

In addition to CMC joint pain the patient often complains of referred pain proximally over the radial aspect of the wrist. Although the patient wants coverage over the pain site, it is not coverage that will control the pain: it is elimination of the painful translation of the joint during load. Assure the patient that pain in this area will diminish by stabilizing the 1st metacarpal, not by covering the area where the pain is perceived.

4. The patient can move the thumb CMC joint while in the MetaGrip®---so what good does it do?

The purpose of the MetaGrip® is not rigid immobilization of the thumb CMC joint, but dynamic stabilization of the joint during use/load, stabilizing the 1st metacarpal to prevent painful translation of it on the trapezium. With the MetaGrip®, the patient is using his/her own thenar muscles to stabilize the CMC joint in the optimal position. Splints which provide rigid immobilization allow the thenar muscles to weaken whereas the MetaGrip® encourages active contraction of the thenar muscles.

5. Why is the thumb MP joint not included in the MetaGrip®?

Most patients with osteoarthritis have isolated

thumb CMC joint pathology and the thumb MP joint does not need to be included. If the thumb MP joint hyperextends during pinch it is important to teach the patient to apply the MetaGrip® with the thumb CMC joint more extended (the thumb out of the palm). Restraining the CMC joint from flexion will prevent the MP joint hyperextension during use. If pathology exists at the thumb MP joint, another orthotic intervention may be more useful.

6. What are the precautions with use of the MetaGrip®?

- As with any device applied to a patient, the MetaGrip® should be removed daily for skin hygiene and cleaning of the MetaGrip®.
- It should be discontinued if pressure areas develop and the patient should seek your advice for adjustments.
- The MetaGrip® is not intended for use in hands with lack of sensibility in the thumb/hand.

7. What can I tell my patients about the durability of the MetaGrip®?

The high temperature plastic material is far more durable than orthoses made from any low temperature plastic. The surface will not easily abrade nor discolor and it can be left in a hot car and washed in the washing machine (do not put in the dryer!) The hook and loop straps have been tested to assure long term durability.