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Digit Widget for PIP Joint Flexion Contracture

Anticipate 3 months of therapy with a loss of extension of 10-20 degrees
Swelling and stiffness can take up to a year to resolve
Do not resize rings for 1 year

Included in the Digit Widget are forms to graph joint ROM. It is possible to note the number of hours the device is worn and the strength of the bands used on the forms. We recommend that the therapist or surgeon document joint ROM on these graphs at each patient visit. This information provides an objective way of determining the effect of the device on the joint.

Instruct the patient to wear the Digit Widget as close to full time as possible, allowing time off for showering, hand washing, etc. We also recommend that the patient remove the band(s) 4-5 times per day for ~10 minutes to perform un-resisted flexion exercises. Because the bands demonstrate a decrease in tension with use, the bands should be replaced daily. The patients should be instructed in daily pin care.

Start the patient with the lightest weight bands. If the joint demonstrates an increase in extension as a function of time and the patient does not have increasing pain, swelling or stiffness in the finger, then the patient can continue using just the light bands. If the finger is not gaining extension, then the patient can move up to the medium or heavy bands. The gain in extension from week to week varies with the etiology of the contracture, the length of time it has been present and the number of prior surgeries the finger may have had. On your graphs, look for an extension gain of 10-20o per week without a significant change in flexion.

Some patients do not need to use anything stronger than the light bands, and other patients may require 2-3 heavy bands. It is totally dependent on the joint's response to torque. Extension torque may require up to 8 weeks to reverse a 90o flexion contracture. Some contractures may reverse more quickly, and some may take longer. Graphing the patient's ROM during treatment makes it easier to see how joint extension is progressing and to adjust the treatment accordingly.



If the MP joint is hyper-extending, use the MP Flexion Strap that is included inside Pack B. Holding the MP joint in some degree of flexion will help concentrate the extension torque at the PIP joint. Follow the directions for use on the Condensed Assembly Guide or Patient Information Card. The MP Flexion Strap can be trimmed to fit.

If the patient's skin becomes irritated under the Cuff, a cotton stockinette may be worn under the Cuff.

The device should not be removed entirely until the patient has a trial period without the bands on to determine if the PIP joint has a competent extensor mechanism. This is especially important if the underlying cause of the contracture is still not fully defined. Ideally, the device should be left on for at least 3-4 weeks after maximum extension is achieved. Most patients will require post Digit Widget splinting program for several weeks or even months to maintain gains in active joint extension.

If the patient needs more supplies, contact Hand Biomechanics Lab.

website: www.handbiolab.com email: info@handbiolab.com

*This protocol was adapted from the Digit Widget Therapy Guidelines from Hand Biomechanics Lab that was created by Cindy Kerfoot Snyder, PT and John M. Agee M.D.

Please call with questions or concerns at the phone number above.