

SpringWire[™] Knuckle Bender

NC33668

Indications

Use for ulnar nerve palsy. Provides intrinsic muscle assistance for ring and little fingers. Ideally designed to use with, a non-coated thermoplastic material.

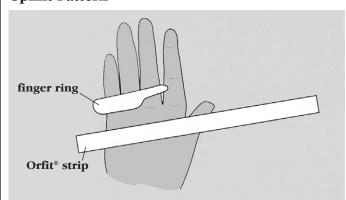
SpringWire™ **Knuckle Bender**



Heating Instructions

- 1) Place strip in water heated from 150° to 160° F (66° to 71° C). Do not use water hotter than 160° F (71° C).
- 2) Keep sticky during molding. Add several tablespoons of clear (not opaque) liquid soap to the water to reduce, but not eliminate, stickiness. The precise amount of soap to add is variable, depending on the amount of water used and the hardness of the water.

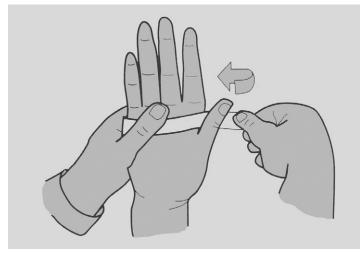
Splint Pattern



Use a strip of $\frac{1}{8}$ " (3.2mm) non-coated splinting material that is $\frac{5}{8}$ " (1.6cm) wide and three times the width of the MCP's, or use Orfit® Strips (NC23145) - precut strips that work well with this design.

Fabrication Instructions

Note: Steps 1-4 must be done as quickly as possible while thermoplastic is still warm.



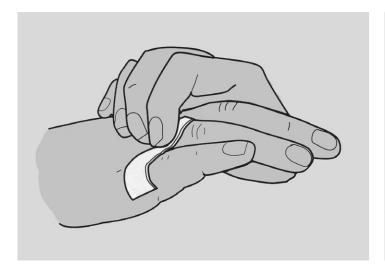
- 1) Start molding the strip at the ulnar border of the hand. Wrap through the palm, coming just proximal to the distal palmar crease. As you mold, gently stretch the strip and form it very close to the palm.
- 2) Wrap the strip across the dorsum of the hand, coming as close to the wrist as possible.



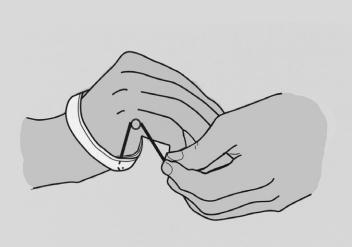
- 3) Continue wrapping by coming over the ulnar border of the hand a second time. *Do not press* the material together at the ulnar border. Using a little water or hand lotion between layers is recommended, to avoid adherence. Wrap through the palm a second time and then cut off the strip at the radial border of the hand.
- 4) Mold the palmar arch. Make sure the strip conforms closely to the palm. Cool quickly with ice water or Cold Spray, or leave on the hand ten minutes before removing to maintain close conformity to the palm.

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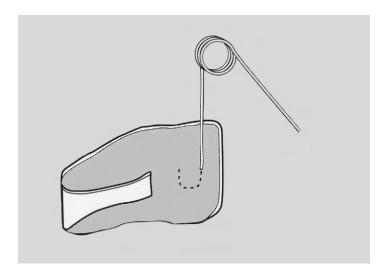


- 5) Make fingerring (see pattern). Begin by wrapping the narrowend of the strip around the volar surface of the ring finger. Wrap the broad portion onto the dorsum of the ring and little finger, covering at least half of the ulnar surface of the little finger.
- 6) Place the finger and palmar strip on the client's hand. Flex the MP's to 90°. Pop open the two layers on the palmar strip at the ulnar border. If necessary, wet-heat the area to open.



7) Measure and cut one end of the spring wire so that there is just enough wire to make a hook. Fabricate a hook.

Dry-heat the hook with heat gun and place it between the two layers at the ulnar border. Adjust so the bottom of the hook rests at the volar edge of the palmar strip and the coil is correctly aligned with the joint axis during MP flexion. Press/hold firmly.



8) Cut the remaining wire end of the coil spring so that it reaches just to the PIP crease. Make another small hook that will fit on the ulnar border of the finger ring.

Remove finger ring and palmar splint. Heat the free coil end (using heat gun) and press into inside of finger ring, as shown above. Hold with pliers until cool. Secure by covering it with a sticky piece of dry-heated material or thin adhesive padding.

To be used under the guidance of a qualified medical professional.



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