Functional SCI Orthosis

Indications: Spinal Cord Injury, Prevent MCP Collateral Ligament tightness

How-To Fabrication Guide:

STEP #1

Begin with a piece of 1/8th in. Tailor splint or Eazyform for more stability. Cut 3 total pieces on a cutting board.

1: Small rectangle the length of 2nd - 5th volar MCP heads and width of just over 1 in.

2: Medium rectangle with opening the size of smaller rectangle and roughly ½ in. wide edges.

3: Large rectangle the length of dorsal MCP heads to line at proximal 2/3rd forearm line
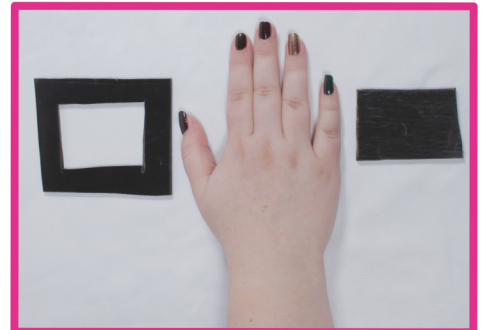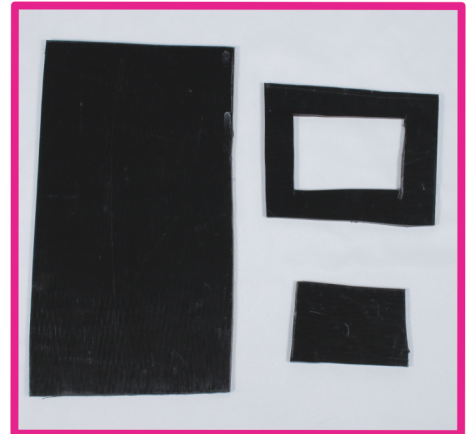
STEP #2

With forearm supported, wrist in 15 deg ext and MCPs at 50 deg, drape pc. #2 on hand with distal aspect over P1s and proximal border just distal to ulnar styloid

Pc. #1 will fold lentghwise over center of 15 in. long strap (1/2 in. wide). While warm, press into palm to match arches along DPC.

STEP #3

Drape Pc #3 over dorsum of forearm and gravity form and smooth. Don't stretch and tag. Trim as needed on lateral edges.

STEP #3B

While Pc. #3 is still warm, use bonding solvent and press Pc #2 onto dorsum of Pc #3. This may take dry heat to fully adhere. Make sure to line up Pc #2 with it's original location.

STEP #4

Smooth edges with heat and a wet finger.

Add a proximal strap and wrist strap proximal to volar crease.

Pc #1 with strap will gently press on DPC to keep MCP heads up into Pc #2.