# Phoenix<sup>™</sup> Outrigger Kit

## **Intended Purpose**

These non-sterile components are used to create a custom, lightweight outrigger support for static or dynamic splinting of hand and wrist.

### Indications

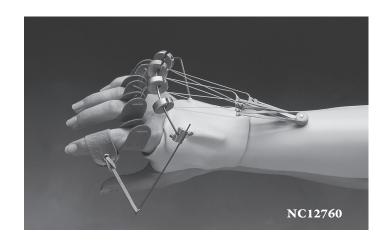
Optimal positioning of the wrist and digits post injury or diagnosis using a combination of the outrigger components. Use for dynamic or static progressive MP joint splinting. Ideal for post MP arthroplasty for precise positioning and adjustment of outrigger lines for proper 90° line of pull.

## Contraindications

Skin irritation. Allergy to Steel, Aluminum, Suede.

#### <u>Kit includes:</u>

(1) Dorsal outrigger bar, wide arch, 4" (10 cm)
(4) Slotted pulleys
(1) Radial outrigger bar
(1) Hex wrench
(3) Finger sling with grommets, 3" (8 cm)
(1) Thumb screw
(4) Finger sling, pre-tied



## Instructions for Use / Proper Fit

All kit components are interchangeable and can be used to customize an outrigger splint. Additional components may be ordered as needed to construct multiple outriggers. The following instructions summarize basic fabrication steps using this kit.

Note: Continuously monitor the patient's condition and the splinting site during use. Make adjustments as necessary. Do not use excessive pressure on bony prominences or sensitive areas during application. Advise patient to monitor for adverse reactions or complications that may arise during use, such as swelling, numbress, or changes in skin color.

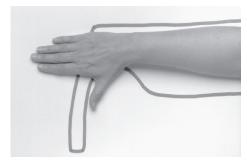
#### 1) Fabricate the splint

Splint material not included. Please refer to the thermoplastic material for additional fabrication instructions.

Draw a dorsally-based forearm splint. The distal end should begin proximal to ulnar and radial styloids. Splint length should extend 2/3rds the length of the forearm. (Fig. 1)

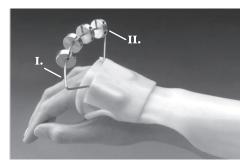
#### 3) Attach the Slings

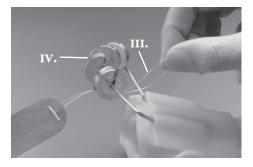
Fold the monofilament loop (III.) of the pretied finger slings at their thinnest portion. Thread through each slotted pulley hole (IV). Fold and crease the doubled nylon line so the sling will hang evenly.



## 2) Attach the Outrigger Bar

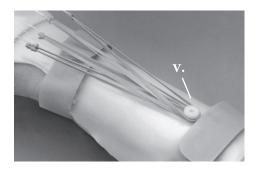
Position the outrigger bar over the midpoint of the proximal phalanges, with the most distal point over the longest finger's proximal phalanx. Attach the outrigger bar (I.) by heating the ends with a heat gun. Embed the ends of the outrigger bar into thermoplastic. Secure the bar by bonding a layer of thermoplastic over each end. (For slotted pulleys (II.), see step 5.)





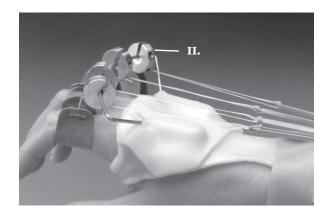
## 4) Attach the Outrigger Bar

Remove from patient's arm and punch a 1/8" (3.2 mm) hole at proximal end of splint and screw in the thumb screw (V.). Slip knot the rubber band onto the monofilament loop of the finger sling. Stretch the rubber band and hook it around the thumb screw.



#### 5) Adjust the Slotted Pulleys

Place the hand in the splint. Loosen the set-screws of the slotted pulley (II.) with the hex wrench to allow adjustment in proximaldistal and radial-ulnar directions. Once in correct finger alignment, secure the pulley using the hex wrench. Note: Approximately 3/4" (1.9 cm) rotational proximal-distal adjustment is available by twisting the pulley to obtain the proper 90° outrigger line alignment to the proximal phalanges.

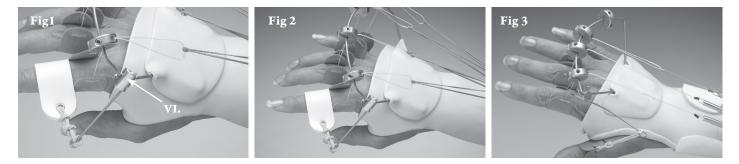


#### 6) Add Radial Outrigger Bar Attachment (optional)

This special attachment is used as a counterforce when a finger(s) is ulnarly rotated or deviated (Fig. 1 and Fig. 2). It may also be used to extend the thumb (Fig. 3). Place the radial outrigger bar attachment (VI.) directly over the radial bend (corner) in the main outrigger bar. This placement gives extra stability to prevent the attachment piece from rotating. (Fig 1)

Bend the outrigger wire if needed to obtain correct alignment with the finger/thumb. Usually, this wire should line up to allow a perpendicular pull to the extended phalanx of the involved joint. Tighten the set screw to prevent rotation of the radial attachment. Use a wire cutter to trim excess wire length as needed.

Slip grommeted finger sling over involved finger or thumb. Use rubber bands to attach the finger sling to the end of the attachment wire.



Instructions For Care: Hand wash in cool water and mild soap. Air dry.

## Warning:

- Avoid direct contact of components with open wounds or damaged skin.
- Do not attempt to punch or drill holes in the thermoplastic while it is on the patient's hand.
- Choking Hazard Keep out of reach of children.
- Discontinue use or adjust fit if patient shows signs of irritation, impaired circulation, increased pain or discomfort, or allergic reactions such as redness, itching, tingling, rash, or color changes in the affected area.
- Use of the Outrigger Kit for other than its intended purposes may cause injury.

## Caution:

- Patient should have appropriate skin hygiene practices to prevent complications associated with prolonged splint use.
- Store Outrigger Kit and components in a clean and dry area.