# Phoenix<sup>™</sup> Extended 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. This splint allows tenodesis hand action by using a static line to suspend the proximal fingers while the wrist is maintained in a neutral to extended posture. Can also be used for dynamic MP extension if rubber bands are used instead of static line.

#### Contraindications

Skin irritation. Allergy to Steel, Aluminum, Suede.

#### Kit includes

- (1) dorsal outrigger bar, wide arch, 3.5" (9 cm)
- (4) slotted pulleys
- (5) 3" (8cm) finger sling, pre-tied
- (1) hex wrench

(1) thumb screw

### Additional materials needed

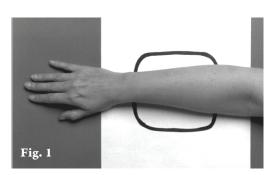
- splint material
- braided outrigger line
- hook and loop
- monofilament outrigger line
- heat gun
- line stoppers or line connectors

# 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, numbness, or changes in skin color.

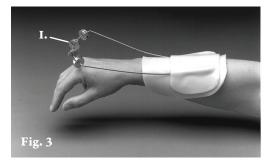
- 1) Splint material not included. Please refer to the thermoplastic material for additional fabrication instructions.
  - Draw a dorsally-based forearm splint. The distal end should begin proximal to ulnar and radial styloids. Splint length should extend 2/3rds the length of the forearm. (Fig. 1)
- 2) Cut pattern from thermoplastic. Heat and drape over forearm. Let cool. (Fig. 2)

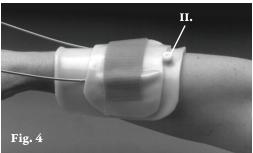




NC12763

- 3) Align outrigger wire by positioning its most distal section over the midpoint of the middle finger's proximal phalanx. Use a heat gun to warm the outrigger's wire base and embed it in the thermoplastic. Secure the outrigger base by bonding a layer of thermoplastic over it. Using the hex wrench, mount pulleys (I.) on the outrigger wire in alignment with the fingers. (Fig. 3)
- 4) Attach the thumb screw (II.) to the proximal end of the splint to serve as an attachment post for the monofilament line. (Fig. 4) Attach the straps. The use of two straps on the base helps to prevents slippage and distal migration. (Fig 4 and Fig. 6)





# Phoenix™ Extended Outrigger Kits

- 5) Fold the nylon lines (III.) of the pretied finger slings and thread through the slotted pulleys. (Fig. 5)
- 6) Place the wrist in slight flexion and the MP's in neutral. This is the correct position for obtaining the proper tension on the monofilament line. Cut four, 12" (30cm) long pieces of monofilament line or braided outrigger line (IV.). Attach the distal end of each line to the loop of the pretied finger slings (Fig. 5) at the end of the doubled nylon line. Use Line Stoppers (NC22557) or Outrigger Line Connectors (NC12494) to make end loops to attach the monofilament. Attach the proximal end of lines to the thumb screw. The outrigger wire should lie close to the hand. (Fig. 6)
- 7) Use the hex wrench (V.) to position the pulleys and adjust the angle of pull. Turn right to tighten. Turn left to loosen. The outrigger bar may be bent and angled to the necessary position (Fig. 7). If the outrigger is placed in a vise, then its angle can be adjusted more easily.

**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, drill holes, or heat 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.

# **Additional Supplies**

| NC12716 | Heat Gun (120 volts)        |                    |
|---------|-----------------------------|--------------------|
| NC11447 | Heat Gun (220 volts)        |                    |
| NC12519 | Braided Outrigger Line      | 50lb. (23kg) line  |
| NC12520 | Braided Outrigger Line      | 20lb. (9.1kg) line |
| NC22556 | Line Stoppers (for small ho | les)               |
| NC22557 | Line Stoppers (for large ho | les)               |
| NC12494 | Line Connectors             |                    |

