

EDEMA CONTROL WEDGE SPLINT FABRICATION INSTRUCTIONS

I. INDICATIONS

- Patient with new CVA with flaccid paralysis who is beginning to develop edema.
- Any patient with CVA and edema- wedge can be used in conjunction with hand splint.
- Patient with wrist fracture or post hand surgery where edema is present.
- Wedge is intended to be used on table, half lap tray, lap tray or pillow to achieve proper elevation.

II. EQUIPMENT

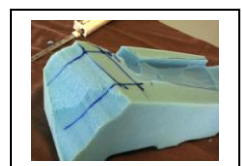
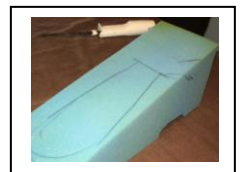
- Electric knife
- Marking pen

III. SUPPLIES

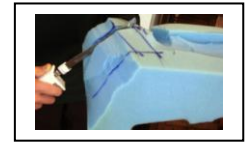
- 1 elevating arm wedge, or a foam piece 5" wide, 16" long, 7" high, tapering to 1 ½" high for an average person. The base may need to be wider and longer for a large man. (Half an abductor wedge is an economy version.)
- 1/2" or 1" pink T-foam, optional
- spray foam adhesive if additions are needed
- pillow case to cover, or fabric, strapping, non-skid matting, Velcro for custom cover.

IV. DESIGN AND FABRICATION

1. Position patient up in wheelchair, with a lap tray or table top to support the involved extremity.
2. Place arm on foam so that elbow is cradled in the lowest point.
3. Draw a line on either side of the forearm and mark the location of the thumb in abduction.
4. Carve out a deep, narrow trough for the thumb piece, with a wider cutout contoured to fit the thenar eminence.
5. Slice straight down (approximately 1" deep) along the forearm markings, then fold back the foam to cut the forearm trough between the first cuts. This will require at least 4 to 5 cuts, using a scooping motion.
6. Carve an opening at the proximal medial end of the trough to reduce pressure to the upper arm, if needed.
7. Place the hand on the wedge again and mark the position of the MCP's and PIP's.
8. Draw a diagonal line connecting the two MCP markings. This will mark the high point of the splint, with the palm and finger supports angling down from this point. You will have to re-mark this line several times as you carve the arches in the splint.
9. Draw a diagonal line connecting the points on either side of the PIP joints. Extend this line to the edge of the foam. Trace a curved line parallel to the front of the wedge- this should angle away from the hand, and be smaller on the radial side of the wedge.
10. Slice the front of the wedge off along the above markings. This contour will accommodate the natural ulnar drift of the wrist.



11. Draw a straight line along either side of the hand and fingers down to 2" below the fingertips.
12. Slice straight down (approximately 1" deep) along the finger platform markings.
13. Begin shaving the foam (a series of small cuts) from the center towards each side cut, always keeping the center of the palmar platform higher than the sides to preserve the palmar arches of the hand. **DO NOT SCOOP THIS PART OF THE FOAM.**
14. To position the hand towards supination, keep the ulnar side of the trough and palmar platform lower than the radial side.
15. Cut out a depression for the wrist and heel of the hand-this will be at approximately a 45 degree angle.
16. Check the position of the hand: the wrist should be in 30 to 40 degrees of extension, and the MCP's flexed as far as possible, i.e. at least 45 to 60 degrees.
17. Place the arm in the wedge and mark any areas that need to be widened, or which place more pressure on the arm than the surrounding foam.
18. Trim any pressure areas and smooth any irregularities.



V. FINISHING TOUCHES

1. If the elbow bony prominence needs extra padding, cut out a depression and replace with T-foam.
2. Carve or glue in place a foam "elbow stop" to prevent the arm from slipping backwards.
3. If the arm shows a tendency to pronate/internally rotate and tip the wedge, add a small torso support midway on the medial aspect of the wedge splint.
4. If more elevation is needed, glue a 1" or 2" piece of foam to the underside of the device.
5. If the arm tends to flex out of the splint, build up the medial side of the forearm trough with additional foam.
6. Cover initially with a pillow case for immediate/trial splint use. If possible, purchase or have a cover made for long-term splint use and protection.
7. Try to avoid straps for optimum circulation; if used keep them wide and line with sheepskin to reduce any chance of impeding circulation.
8. If a strap is needed to maintain MCP flexion, use a wide strap lined with T-foam to create a sandwich pressure effect.
9. Non-skid matting can be sewn to the underside of the cover or placed on the tray table to prevent the wedge from sliding.
10. If soiling of the foam is probable, wrap foam with plastic wrap or plastic garbage bag, taping plastic into place to fit the device contours. This is important to preserve the fire retardant properties of the foam, which are lost if the foam is washed.



EDEMA CONTROL WEDGE SPLINT

For _____ Left ___ Right ___ Arm

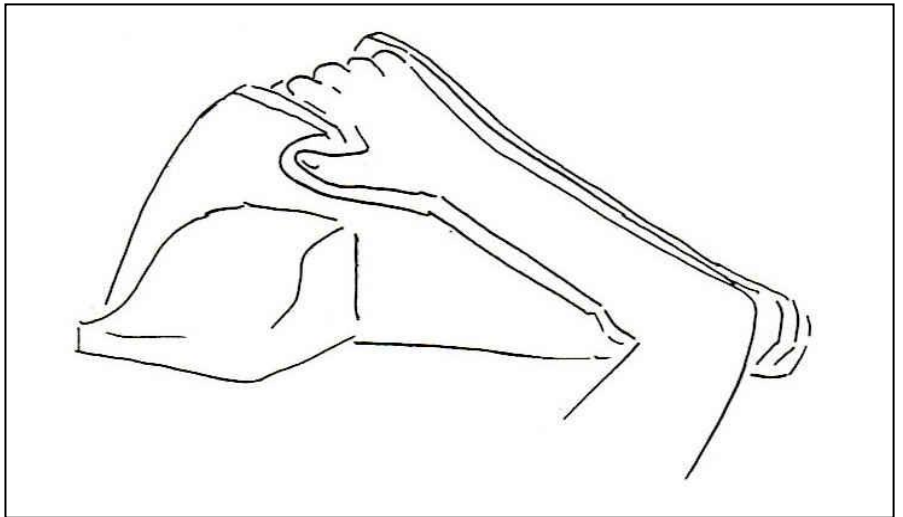
Schedule:

___ Use on ___pillow ___lap tray when up in wheelchair

___ Use on pillow when ___on back ___ on side in bed

___ Other:

Instructions:



1. Cover foam with clean pillow case or custom cover to protect skin and protect foam from soiling.
2. Give gentle range of motion to extend the elbow, wrist, and fingers before applying.
3. Place forearm and hand on splint, with thumb out to the side and fingers correctly placed on finger platform.
4. Elevate on pillow if needed so hand is higher than heart.
5. Position arm out away from body as tolerated.

Any questions? Contact Rehab. Department or OT

Issued by: _____ Date: _____