

New Product Makes Splinting Easier

BY DOROTHY KESTER, O.T.R.

A new material now in use at the Delaware Curative Workshop, Wilmington, Del., makes it possible to devise a cock-up splint in 30 minutes or less.

Recently introduced to the market as "Prenyl",* the material has undergone more than two years' trial by occupational therapists there. It has been found easy to work with and comfortable to wear. Main use has been for hand splints of all types. Among miscellaneous items fabricated are night splints to prevent foot drop, tool holders, built-up handles, mouth pieces for quadriplegics and an ankle brace to help determine whether or not a short leg brace would be advantageous.

The material comes in a somewhat flexible flat sheet and has a texture which eliminates the need for padding in most instances. This basic flexibility can be modified by adding a second layer to strategic spots or by combining longitudinal and transverse curves during fabrication. Adding pieces to any device is simplified by the fact that the material is self-adherent when heated to 180 degrees Fahrenheit or above. Additional pieces may be attached quickly with a special adhesive if not heated.

Because of the plasticity of this material when heated, an original pattern can be simplified and modified considerably without fear of pressure spots or irritation at bony prominences. It can be softened for molding with dry heat or in hot tap water. It can be molded directly on the patient without protective covering and can be cut with scissors.

No buffing or additional smoothing is needed on the edges. Ventilation holes can be made with a leather punch without weakening the splint if it is uncomfortable for the patient to wear.

To make a cock-up splint by the new method, the first step is to draw the original pattern on the material using either of the patient's hands as the model. An extra three-quarters of an inch is allowed along each side of the forearm, half an inch along the fifth metacarpel and wrist and

half an inch proximal to the head of the second metacarpel. The necessity for indentations for bony prominences has been eliminated and the indentation for the thenar eminence does not need to be cut as deep as with other materials.

Secondly, the marked material is dipped in water of 140 degrees F. or hotter, and the pattern is cut out with scissors using long strokes. It is reheated if it isn't pliable enough to mold.

The third step is to form the splint directly on the patient's hand, holding in position for one to two minutes until the shape is partially set. Any area to be trimmed or reshaped can then be marked. Shaping may be continued after the material reaches room temperature.

If handled gently after it has begun to set, final trimming or shaping can be done. Any area to be trimmed or reshaped should be spot heated by dipping into hot water. Edges will be rounded if heated before trimming.

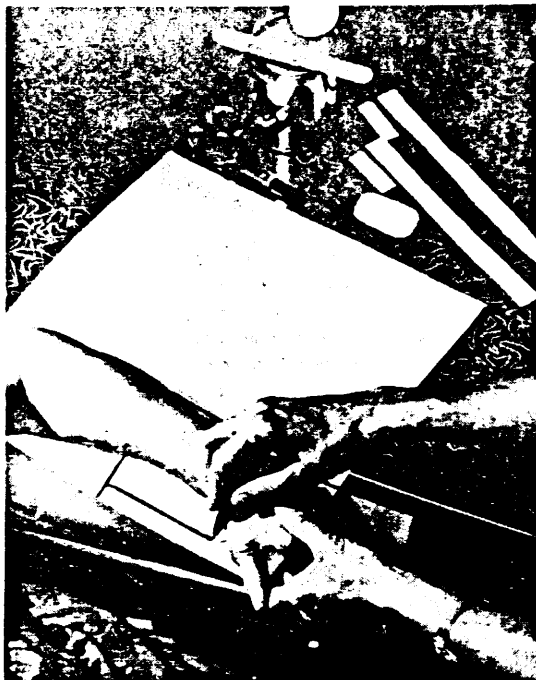
The splint will retain its shape after 10 minutes. The setting process can be speeded up by placing it in cold water or in the refrigerator. The splint may be modified for position change by spot heating.

If additional rigidity is needed to maintain position, a patch of material can be added to the exterior. This is accomplished by cutting a patch to the desired shape and applying heat or adhesive to both splint and patch. If hot water is used for heating, the areas to be adhered must be dried.

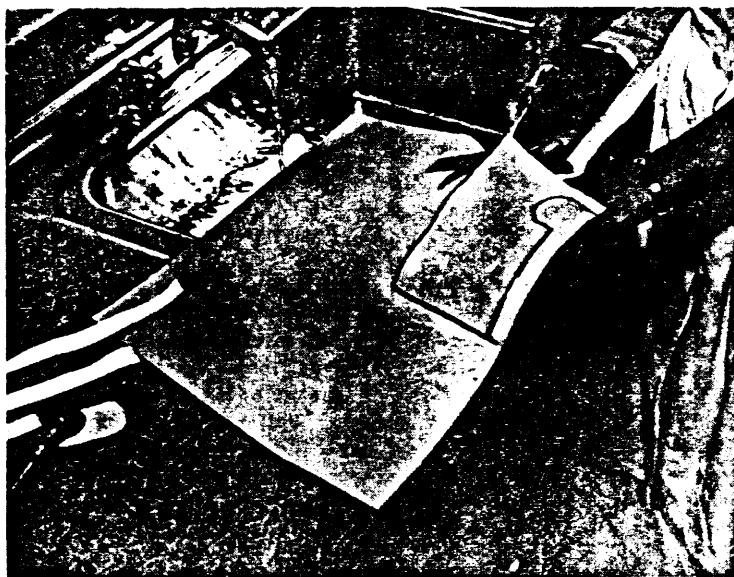
Finally, straps of cotton webbing or leather are attached with a special adhesive. Accurate positioning is essential because of the permanency of the bond.

Splints made with this material simplify the art of splint making, save time for therapist and patient and make fabrication especially easy for those who have had little or no experience. More important, both doctors and patients are pleased with the results. No occupational therapist could ask for any more than that.

* Available through:
Ortho Shoe Inc.
49 Lawton Street
New Rochelle, N.Y.



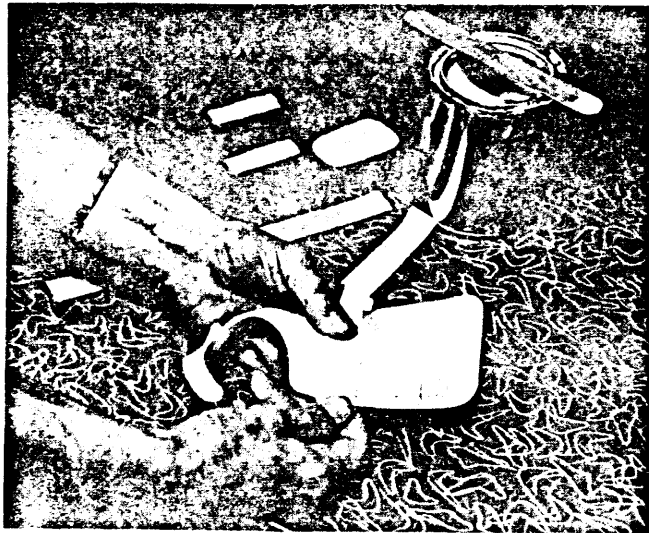
The first step in making a cock-up splint is to draw the original pattern on the material using either of the patient's hands as the model. An extra three quarters of an inch is allowed along each side of the forearm, half an inch along the fifth metacarpel and wrist and half an inch proximal to the head of the second metacarpel.



The marked material is dipped in water of 140 degrees Fahrenheit or hotter, and the pattern is cut with scissors using long lateral strokes. It is reheated if it is not pliable enough to mold.



The third step is for form the splint directly on the patient's hand, holding in position for one or two minutes until the shape is partially set. Any area to be trimmed or reshaped can then be marked. Shaping may be continued after the material reached room temperature.



Straps of cotton or leather are attached with a special adhesive. Accurate positioning is essential because of the permanency of the bond.



Finished splint.



Applying finished splint to the hand.