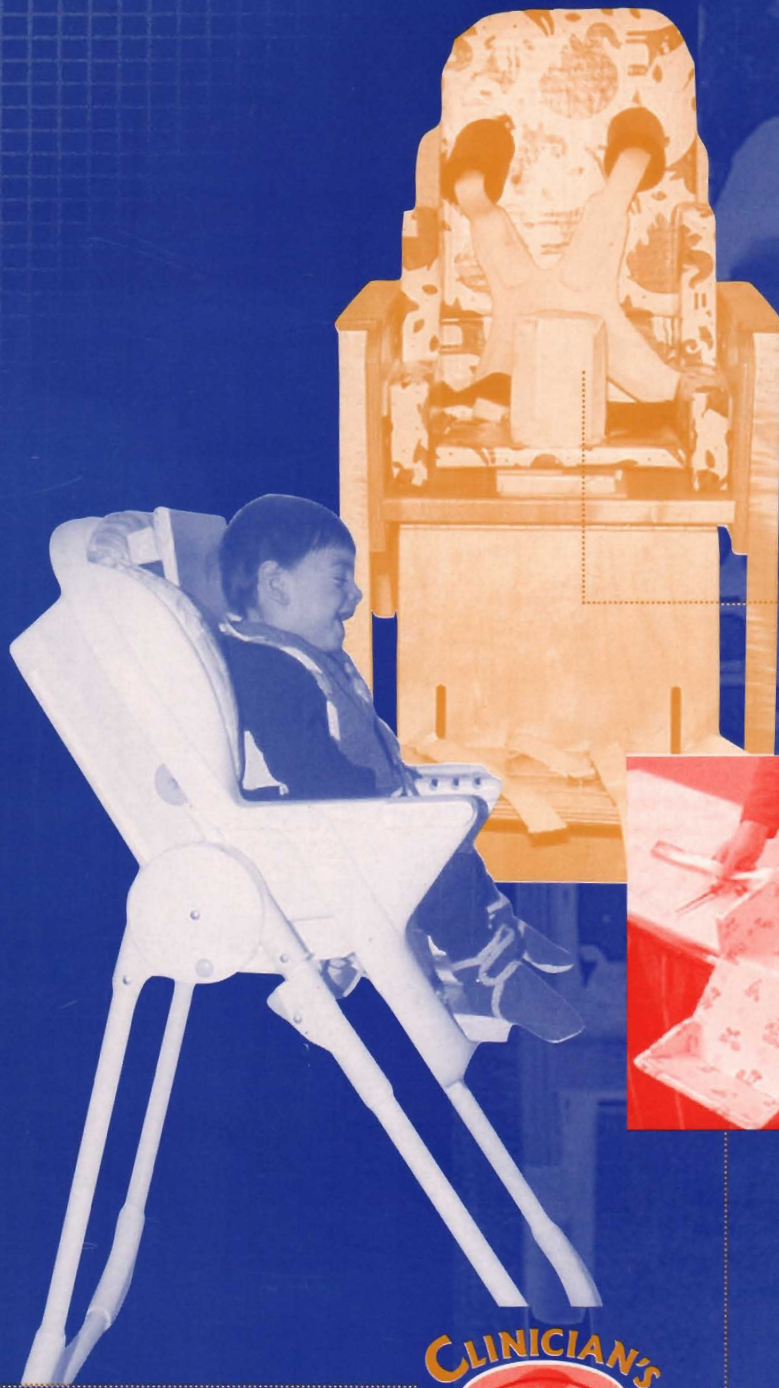


Adaptive Seating

Using Triplewall



CLINICIAN'S
VIEW™

by Nancy Altshuler, P.T.

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Presented by
Nancy Altshuler, P.T.

Basic Inserts

There are a wide variety of inserts that can be constructed for use in improving positioning and function. These include, hip guides, seat bottoms and seat backs, lateral trunk supports and complete inserts for use in strollers or chairs. Triplewall can also be used to construct corner seats, sidelyers, prone standers and other basic positioning devices.

HIP GUIDES

Purpose: Correct alignment of the legs in low tone children and to give added stability for trunk control to support upper body function.

Single and double layer inserts can be used as hip guides. The use of hip guides is particularly helpful to correctly align the legs of children who have low tone and tend to have wide abduction of their legs. More correct alignment of the legs helps provide the child with added stability for trunk control and fine motor activities.



SEAT BOTTOMS AND SEATBACKS

Purpose: Provide correct height to table or shorten seat depth to get proper pelvic alignment. Allow customized seating that is easily interchangeable for a variety of classrooms and situations.

The use of seat bottoms and seat backs is effective in correcting the height of a chair to a table or to shorten the depth of the chair. The importance of chair depth relates to the position of the pelvis in the chair. Proper pelvic alignment is one of the most important aspects of seating. It establishes a stable base for function of the upper body. The use of single and double layer seat backs, seat bottoms and hip guides provide the opportunity to customize the seating for an individual child.



FOOTREST BLOCK

Purpose: To allow the child to get into and out of a chair more independently without the chair tipping forward.

Placing a block of triplewall under the footrest of a chair provides more stability for the chair itself. This will allow a child to more independently, or with assist, to get in and out of a chair without the chair tipping. This provides another level of functional experience for the child.

- ✦ Not effective for children with severe spasticity.

FABRICATING THE INSERT

Materials Needed

- ✦ Tape measure
- ✦ Pencil
- ✦ T-Square or yardstick
- ✦ Utility Knife
- ✦ Regular Screw Driver
- ✦ Awl
- ✦ Dowels (3/8" or 1/4")
- ✦ Jigsaw
- ✦ Hot glue gun and glue sticks
- ✦ Small hammer
- ✦ Pencil sharpener
- ✦ Contact paper or latex paint
- ✦ Clear packing tape
- ✦ Triplewall (call Triplewall at 1-800-881-1049)

Making a Triplewall Adaptive Insert

MEASUREMENTS

All measurements are taken with the child in supine position, with hips and knees flexed to 90 degrees. The child should be fully clothed with shoes on. Note that when measuring an insert, you must accommodate for the dimensions of where the insert is to be used. Also remember to accommodate for growth and the space needed for folds.

1. Head & Trunk Length

Measure from the ischial tuberosities to the top of the head.



2. Trunk Length

Measure from the ischial tuberosities to the top of the shoulders.



3. Chest Height

Measure from the ischial tuberosities to the axilla.



When recording these measurements remember to add 1 to 2 inches for growth. Subtract 1 inch from chest height so the lateral trunk supports are not too close to the axilla.

4. Thigh Length

Measure from the popliteal fossa to the support surface.



5. Calf Length

Measure from the popliteal fossa to the heel



6. Foot Length

Measure from the heel to the end of the shoe.



When recording these measurements remember to subtract $\frac{1}{2}$ inch to 1 inch for thigh length to allow comfortable knee flexion. It may also be advisable to add $\frac{1}{2}$ to 1 inch to the calf and foot lengths to allow for growth and comfort.

Doweling the insert is necessary to give strength to the folds and secure the shape of the insert. Use 3/16 or 1/4 inch diameter dowels. Use the jigsaw to cut dowels about 3 inches long. Use an electric pencil sharpener to sharpen the dowels. Use 3 dowels in each of the lateral hip guides and 2-3 dowels in each side of the footplate. Use dowels in the seat back to bottom joint to add stability. To insert the dowels use an awl to make an initial hole. Fill the hole with glue and pound in the dowels. (see video for specific techniques)



After the insert is completed use packing tape to cover the edges and dowels.



View Video Clip Part 7: Doweling the Insert