

low-back flexion, hold, then upper back extension (Fig. 4). First develop a pivot point near both outer ends of the upper band. Use a rotating padded surface at the upper sternum. A U-shaped 1/4-inch or 5/16-inch round rod, bent just to miss breast and chest from this pad, runs downward to hook onto these pivot points and protrude backward. The lower rod ends now are forced forward to snap over a slightly hooked stud near the lateral ends of the bottom band; or, if the object is simply more elastic postural urge, an elastic strap across the front can be used to pull the lower ends forward—any variability in upper-back extension can be made with the low back held flat. If the pivot point is made like a T, a slotted hole off the extension rod can hook onto it with the upper half of the brace at 90° (horizontal) to the body. Then, when the U-rod and the pad are rotated up to the sternum, this pivot will not jump off accidentally. The late results of a dorsolumbar compression fracture is usually lumbosacral pain, which is created largely by the doctor by his over-all hyperextension brace or cast, plus a vertebra that has just about the same compression on healing that it had on the original roentgenogram. This flexion low back-extension upper back brace is useful in such cases, as well as in adolescent round back and in osteoporosis, for a while at least in those cases with vertebral body compression.

Garters to hold up stockings and hernial pads as a truss can be attached to the brace. One can use the brace instead of a Hessian girdle or other low-torso brace to be attached to lower extremity long-leg braces. I have used it to advantage for 14 years, ever since I was alerted to the arcs and dynamic pivot point by a barrel-bodied farmer who informed me, and demonstrated to me, that he was more comfortable and flattened more effectively by his Williams brace when he wore it upside down.



## Construction and Fitting of the “Upside-Down Brace”

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*EDITOR'S NOTE: Information on the technical aspects of fitting the brace described in the previous article has been contributed by the Messrs. Plattner. This material was not previously included in the article by Dr. Stuttle.*

Our experience with “The Upside-down Flexion Back Brace” dates back to approximately 1950, when after considerable experimental work, we arrived at a standard for measurement and fitting. We feel that it is the most effective brace to hold the patient in a flat back position.

### Procedure

With the patient standing, arms at sides and facing orthotist, take (1) a snug measurement of the hips at the trochanter level. Then (2) a snug

waist measurement at the navel level, and (3) a snug chest measurement approximately 2" below nipple line.

Then have patient stand with back to orthotist and hands at sides. Take a vertical measurement, starting at level of coccyx up to and including approximately 1 $\frac{3}{4}$ " of lower rib margin. This measurement determines the height of back brace. The length of the upper band is determined by approximately  $\frac{1}{3}$  of the chest measurement minus  $\frac{1}{2}$  to 1". This band has a slight downward curve at either end (from the mid line).

The hip band length is determined by a distance just posteriorly of one trochanter to the other trochanter. This band also has a slight upward curve at either end.

The brace has two straps that are attached at each end of pelvic band and buckle to a plastic belly pad that fits on top of rubber abdominal apron. There are also two chest straps. These are attached to the side bars and go through a D-type slide loop attached to just below the chest band and buckle on the plastic belly pad.

Upon applying the brace, the rubber apron is zipped up, centered on the body and the brace located so the bottom of the pelvic band is just above the base of the coccyx, or level with it.

When removing brace, both chest band straps are completely unbuckled and one lower hip band strap is unbuckled, leaving the other hip band strap buckled on the plastic belly pad. Upon reapplying brace, the second hip band strap is tightened only firmly with plastic belly pad at approximately the bottom of rubber apron, so that both hip band straps are located just under iliac crests or anterior superior iliac spine.

Next the chest band straps are tightened *quite firmly*, pulling each one out, then holding while buckling, achieving the flat back position, preferably with patient doing a pelvic roll—causing a normal flattening of the body across navel level. If brace is properly fitted, the top of the plastic belly pad will be at about the level of the umbilicus.

## World Veterans Leader Heads Conference On Handicapped

Norman Acton, Secretary General of the World Veteran's Federation, has been elected Chairman of the *Conference of World Organizations Interested in the Handicapped* (CWOIH).

The purpose of the Conference is to develop cooperation between international non-governmental organizations interested in the handicapped and to serve as a permanent liaison body between such organizations and the United Nations.

Prior to assuming his present post with the World Veteran's Federation, Mr. Acton served for five years as Executive Director of the United

States Committee for UNICEF (The United Nations Children's Fund). From 1950 to 1954, Acton was Assistant Secretary General of the International Society for Rehabilitation of the Disabled.

Other officers elected to serve with Mr. Acton were:

John E. Jarvis, Secretary General World Council for the Welfare of the Blind—Vice Chairman.

Miss M. Joyce Neilson, Secretary World Confederation for Physical Therapy—Secretary.

Miss Audrey Moser, Deputy Secretary General International Union for Child Welfare—Rapporteur.