

IEM (SI)

LUMBO PELVIC SUPPORT

The lumbo sacral region is the hub of our weight bearing posture which, therefore, renders it quite vulnerable to soft tissue sprains and strains.

In many cases of management of these injuries, the tissue which is initially injured is not able to effectively heal due to the inability to provide proper stabilization or rest from undesirable gravitational forces.

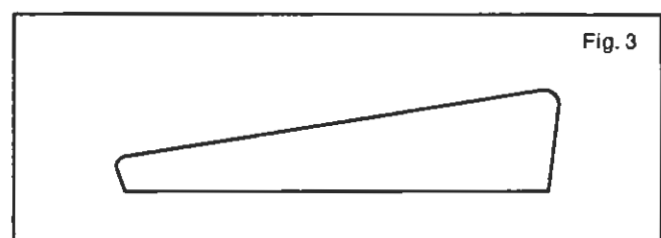
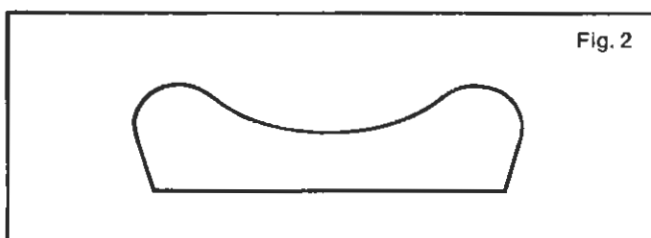
It is this initial stabilization coupled with extensive bio-mechanical counseling that enables the professional to manage an individual and properly control the healing process of the injured spinal tissue.

The lumbo pelvic support is composed of three specific parts; two side straps and a trapezoidal-shaped sacral pad, (Fig. 1). The side straps are contoured in order to assure the desired forces around the pelvis and are lined with SORBOTHANE[®] which minimizes upward riding and significantly maximizes the patient's comfort. An interruption of the SORBOTHANE[®] lining is provided anteriorly to supply relief to the lateral/femoral cutaneous nerve which under compression generally causes an undesirable sensation in the lower extremities.



The sacral pad is contoured with elevations on the lateral aspects, (Fig. 2) designed to add specific compression to the sacral iliac joints and also to relieve the sacral spinous processes. The pad is thicker inferiorly than superiorly (Fig. 3) providing specific compression at the inferior aspect of the sacrum. This pad is also made of SORBOTHANE[®] which significantly adds to the compression of the posterior supporting structures and again adds to the conformability of the support. The lumbo-pelvic support is designed to create a superior and posterior rotary force on the anterior/superior iliac spines, at the same time placing an anterior/inferior force on the sacrum, causing it to maintain its position or to move slightly into extension. These forces secure the sacral position, and keeps the L5 - S1 facet joints from extensive movement in the end range of extension, i.e., this accumulation of forces directs movement in the invulnerable midrange of these synovial joints. The compressive nature of the support also approximates the posterior lumbo pelvic tissues which notably adds to its stabilization qualities. In essence, this support causes a slight posterior pelvic tilt.

This temporary biomechanical alteration allows for proper beginning of the healing of the soft tissue as well as provides a kinesthetic reminder which assists in diminishing movement into the reinjury range.

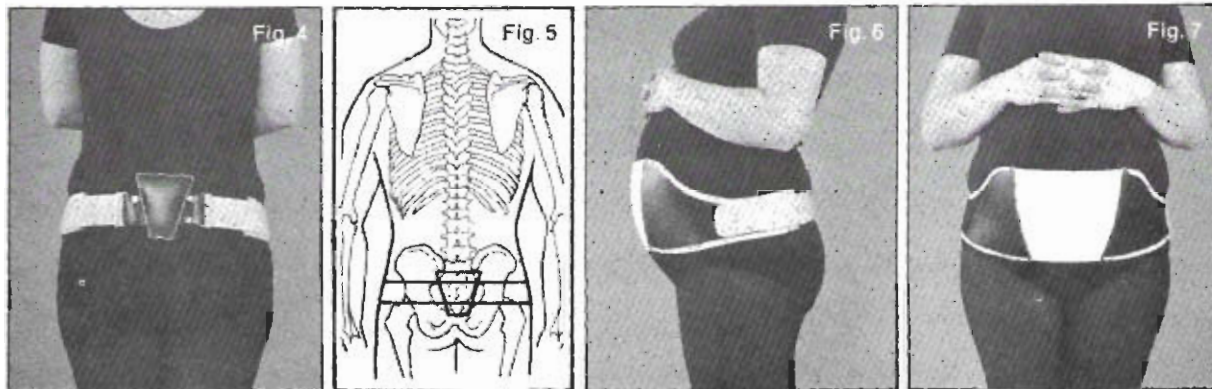


During pregnancy, as the fetus grows and the abdominal cavity increases in size, the weight line of the erect posture is moved anteriorly. Accompanying this anterior migration is an increase in lumbar lordosis. The facet or apophyseal joints, in an increased lordotic curve, adopts a resting position out of its mid range and into an extended position. The capsule and capsular ligaments are placed on a stretch and these articulations are therefore more vulnerable to injury. The facet joints also begin to bear weight; a task not in its design. The supporting structures of the sacral iliac joints, with this biomechanical change, are also vulnerable to injury. If the strength of the musculature of the mother is not adequate to properly stabilize these areas, abnormal excessive weight-bearing is placed on the supporting structures of these joints and back pain begins. The treatment program closely parallels the aforementioned protocol of mechanical low back pain. Specific proper stabilization is of utmost importance.

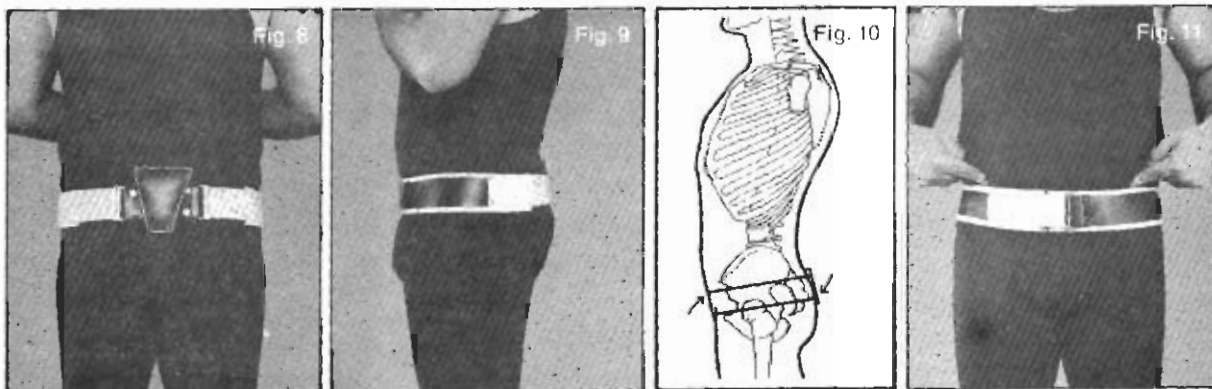
The position of the support is critical to its effectiveness. It is to be **tightened posteriorly** and is to be placed just inferior to the anterior/superior iliac spines. The sacral pad is to be placed over the sacrum. The point at which the gluteal cleft begins is a landmark to be identified for the starting position of the inferior aspect of the sacral pad, (Figs. 4-11).

Ordering is done by **taking a total circumferential measurement** inferior to the anterior/superior iliac spines. In the case of measuring for the maternity lumbo pelvic support, month of pregnancy is desirable.

MATERNITY (SI) LUMBO PELVIC SUPPORT



LUMBO (SI) PELVIC SUPPORT



These supports have proven to be an integral part of the successful management of the patient experiencing mechanical lumbo pelvic disorders. A management described by Mr. James A. Porterfield, M.S.,L.P.T.,A.T.C.

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