

Introduction to SO



06 February 2019

Introduction

- The proper use of spinal orthoses requires understanding of the pathology and physiology of the disorder.
- Even if the symptoms are obvious it can be difficult to do a complete analysis of the spine due to the complexity of the anatomy of the spine.

Function of SO

An accurate assessment and understanding of the effects and function of the orthosis, both positive and negative is required.

- Correction/ prevention of deformity
- Restriction of movement
- Assistance with Stability/ Support
- Reduction of load on the spine

Indications

- Pain relief
- Mechanical unloading
- Correction of Pathological position
(i.e. Scoliosis, kyphosis,
spondylolisthesis, etc....)
- Spinal immobilization after surgery

Indications Cont.

- Spinal immobilization after traumatic injury
- Compression fracture management
- Kinaesthetic reminder to avoid certain movements

Possible Negative Effects

- Muscle atrophy with prolonged use
- Decreased pulmonary capacity
- Increased energy expenditure with ambulation
- Difficulty donning and doffing orthosis
- Difficulty with transfers

Possible Negative Effects Cont.

- Psychological and physical dependency
- Increased segmental motion at ends of the orthosis
- Unsightly appearance/Poor patient compliance
- Local pain /Skin breakdown/Discomfort

Positive Outcomes

- Decreased pain
- Improved function/trunk support/motion control
- Increased proprioception
- Improved posture/ spinal realignment
- Correction of spinal deformity

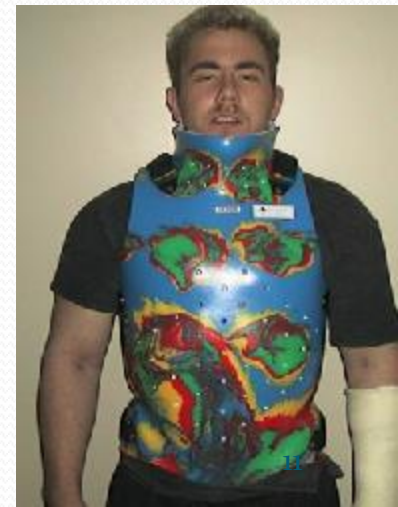
Positive Outcomes cont.

- Protection against spinal instability
- Healing of ligaments and bones
- Increase in intra-abdominal support
- Ease muscle strain

Type of Spinal orthosis

- Cervical orthoses (CO)
- Lumbar-sacral orthoses (LSO)
- Thoraco-lumbar-sacral orthoses (TLSO)
- Cervico-Thoraco-lumbar-sacral orthoses (CTL SO)
- Sacro-iliac orthoses (SIO)

Spinal Bracing



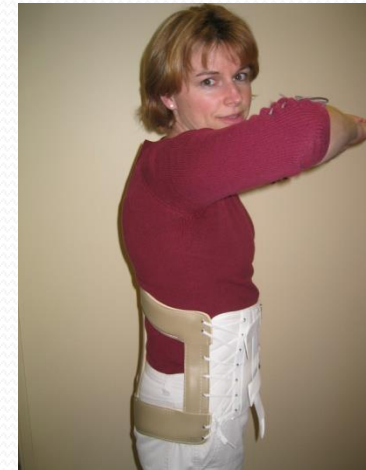


Corsets





Chairback Brace



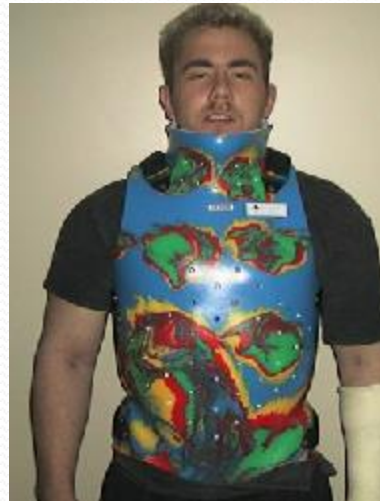


Jewitt Brace





CTLSO





Any Questions???

Thank you!!!