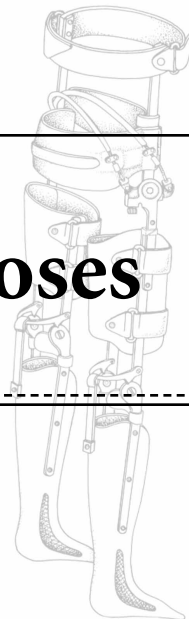


Trunk and Cervical Orthoses



*I, that am rudely stamp'd, and want love's majesty
To strut before a wanton ambling nymph;
I, that am curtail'd of this fair proportion
Cheated of feature by dissembling nature,
Deform'd, unfinish'd, sent before my time
Into this breathing world scarce half made up.
William Shakespeare, King Richard III*

Orthoses for the neck and trunk are often prescribed to reduce pain and minimize deformity. They affect the body primarily by resisting motion or protecting the body part, rather than assisting motion or transferring force, as is the case with orthoses for the limbs.

TRUNK ORTHOSES

The clinical utility of trunk orthoses is controversial because well-controlled studies are difficult to conduct. Anecdotal evidence, however, suggests that some patients experience pain reduction and thus achieve greater function while wearing an orthosis. Trunk musculature may relax when the individual uses an orthosis. In addition, limiting motion through the pain-free excursion helps the patient resume customary activity. For the short-term, the therapeutic effect is desirable; however, if the trunk orthosis is worn for an extended period, the patient will develop disuse atrophy and weakness. The psychosocial effects of trunk orthoses cannot be ignored: the orthosis is a visible indicator of disability.

Although the intended purpose may be to influence the position or the motion of the vertebral column, the designation "spinal orthosis" is misleading. The orthosis is worn over soft tissue and usually over the pelvis or thorax, or both bony structures. Consequently, "trunk orthosis" is a more accurate term. Even when the therapeutic intention is to affect the spine, the forces that an orthosis apply are dissipated by the skin and underlying tissues. Skin tolerance is a major factor limiting the snugness with which an orthosis can be worn.

As noted in Chapter 1, "orthosis" refers to any appliance worn on the body for therapeutic purposes. Nevertheless, the most commonly used trunk orthoses are often called "corsets" or "belts." These terms connote orthoses that lack rigid horizontal structures; often, the corset or belt does have vertical reinforcements.

Orthoses for the trunk are usually mass-produced. Patients with marked trunk deformity or unusual size may require custom-made appliances.

Most orthoses worn on the trunk compress the abdomen, thereby increasing intra-abdominal pressure. Some orthoses also restrict motion in one or