

CHAPTER 8:

Spinal Rehabilitation Fundamentals

Review pages 220-278 in the textbook for this section of the workbook

DEFINE YOUR KNOWLEDGE

In the chiropractic setting, rehabilitation is the administration of corrective biomechanics to joints and soft tissues. The purpose of rehabilitation is to treat biomechanical weakness, imbalance, dysfunction, recovery of metabolism, and blood flow demands to the muscle tissues. The use of spinal rehabilitation is important in minimizing or preventing the reoccurrence of back injuries.

The basis of spinal rehabilitation is guided by the **S.A.I.D.** principle, **Specific Adaptation to Imposed Demands**. This principle basically means that our body will make physiological, neurological, and psychological adaptation to stresses applied to the body. For these adaptations to be the most beneficial, the demands should be specific to the patient's job, sport, or specific task. The goals of the S.A.I.D. principle are to:

- 1) Reduce neuromuscular compensation and activities that induce inflammation.
- 2) Restore proper activities of daily living.
- 3) Restore and establish proper kinetic chains during exertional activities.

APPLY YOUR KNOWLEDGE

There are 3 **phases of rehabilitation** that all injuries must go through. The exercises given to the patient will depend on the phase of rehabilitation the patient is in. The three phases are **1) Reduce** pain, inflammation, and hypertonicity **2) Restore** range of motion **3) Remodel**. Review the description of the phases of rehabilitation on page 224 of the textbook, then determine in which of the following phases the following activities might occur.

- 1) A 15 year old soccer player is 10 days into a second degree ankle sprain. He is given exercises to improve range of motion and balance exercises to restore proprioception. This patient is in the _____ phase of rehabilitation.
- 2) A 28 year old runner had ACL knee surgery 3 months ago. She is performing resistance exercises such as squats and hamstring curls, and is being instructed in proper gait mechanics to restore normal walking patterns. This patient is in the _____ phase of rehabilitation.
- 3) A 50 year old sprained his wrist while working in the garden two days ago. He is receiving electrical stimulation to decrease pain and has been told to ice at home. He is in the _____ phase of rehabilitation.