

Newsletter

January 2003

The 3 Phases of Healing

There are three phases the body goes through to heal any injury.

The **first phase** is simply INFLAMMATION and occurs within the first 48-72 hour post injury. During this phase the most important thing to do is control the inflammation, usually by using ICE, and avoid further irritation to the area. Sometimes immobilization with a brace is necessary.

PHASE I - ACUTE INFLAMMATORY STAGE

- the first 48 - 72 hours post injury
- presence of swelling, redness, warmth, pain
- exercise prescription for **non affected** body parts can be initiated
- rehab of the affected area should begin after inflammation has been control led
- exercises target reactivation through proprioception (rocker board) balance (gym ball) isometrics within pain free ROM, as well as spinal stabilization exercises (floor exercises) within pain free range of motion
- cardio training can be initiated

The **second phase** of healing, up until 6 weeks post injury, is when your body begins to REPAIR AND REGENERATE. This is when scar tissue formation occurs. Our muscles and organs are covered with a material much like plastic wrap, that's called fascia. When injured, the scar tissue turns this area of 'plastic wrap' into a material much like 'wax paper', inflexible and without circulation. This will cause a weak spot in the tissue that was injured allowing the margin of 'plastic wrap' and 'wax paper' to be injured again or torn more easily unless it is knitted together properly from the beginning. The most important thing to do during this gentle, pain free range of motion exercises and stretching. By starting motion as early as possible we can stop the scar from becoming too large and allow the tissue it is healing to regain its flexibility and strength.

PHASE II - REPAIR AND REGENERATION

- from 48 - 72 hours post injury to up to 6 weeks
- collagen being laid down and is still fragile
- scar tissue formation and joint stiffness

- exercise progression can occur once 75% pain free ROM from Phase I is achieved
 - can begin active/resistive exercises such as floor/spinal stabilization exercises, gym ball and the addition of tubing and/or weights focusing on perfect form within pain free ROM. (Quality NOT Quantity)
 - cardio training should continue
-

The **third phase** of healing, which can take up to 12 months, is when the tissues REMODEL AND MATURE. The only way that the body can complete this healing process is by the performance of specific exercises prescribed for your individual needs. Exercises geared toward building strength and endurance through safe ranges of joint motion will enable the body to heal with strength, balance and stability and be less prone to reinjury.

PHASES III - REMODELLING AND MATURATION

- from 3 - 6 weeks post injury to up to 12 months
- Davis' Law states that tissue will remodel according to demands placed on them (Specific Adaptation to Imposed Demands)
- Exercise targeted at restoring balance as well as building strength and endurance through full range of motion
- Exercises to imitate activities of daily living and demands of employment