

INFLAMMATION CONTROL VIA ICE THERAPY

Lyn Paul Taylor, B.A., M.A., R.P.T.

(Editing Assistant and Computer Consultant: Joanna Soon, B.S.)

Inflammation is a physiological response to tissue stress or trauma. When traumatized (excessively stressed or irritated) the involved soft tissues produce *inflammatories* that are designed to promote the healing process. These inflammatories include *histamine*, *bradykinin*, and *prostaglandins*. The sources of soft tissue stress or trauma include *external blows*, *puncture*, *tearing*, *burns*, *metabolite accumulation*, *bacterial toxins*, *viral toxins*, *enzyme irritations* and others. Ice therapy (cryotherapy) has proven to be useful in the treatment of soft tissue inflammation because of its ability to affect various physiological processes. These include: (1) *slowing* the action of destructive enzymes and toxins, (2) *decreasing* local metabolism, (3) *desensitizing* sensory nerves (those previously sensitized by histamine and bradykinin), and (4) *retarding* the production of prostaglandins by slowing the release of histamine from affected sensory nerves.

Cryotherapy treatment of soft tissue inflammation is best performed with a *crushed ice pack*. What ever the coolant instrument used, the treatment should continue until an *erythemic reaction* and *local anesthesia* of the skin has occurred. If a crushed ice pack is used, the entire inflamed area should be packed for 10 to 12 minutes, or sooner if local anesthesia takes place.



Ice pack applied to the extensor surface of the forearm for the treatment of Tennis Elbow

Ice bags are *not* particularly effective for the treatment of *soft tissue inflammation*, since their cooling is generally *superficial* and they have little or *no effect* on deeper tissues.

[See ICE THERAPY, Precautions]

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