Title: Functional Cast Therapy

Domain: 3 - Immediate and Emergency Care, 4 - Treatment and Rehabilitation

Skill Level: Advanced

Keywords: Custom immobilization; Focused support

Abstract: Casting and splinting has been used in medicine for years as a method of healing a variety of pathologies. The current use of casting and splinting methods and techniques in sports medicine and rehabilitation has taken these methods and applied ways to increase overall patient functionality whether in sport or activities of daily living, that increase patient recovery in long run preventing atrophy and other negative impacts immobilization (1, 2, 3).

Current advances in casting tape materials and splinting material packaging has made these materials more readily available for rapid use in emergency situations. In addition, to allowing for rapid application on sidelines and during half-time of sporting events allowing athletes to return more rapidly with adequate protection sooner (3).

Functional Cast Therapy - in principle - provides fracture stabilization while maximizing muscle function. By encouraging more function, muscle atrophy is minimized decreasing the overall amount of time need post casting/splinting for rehabilitative therapy. In essence, promoting fracture healing and an early return to normal activities of daily living (3, 4).

This casting tape and materials allows the athletic trainer to have a removable splint system that may be worn to swim in allowing for a variety of options for using aquatic therapy in maintaining a patient’s cardiovascular fitness and minimizing many negative impacts associated with immobilization (4). This material may also be washed by a patient in a dishwasher, dried with a hair dryer or in a dryer. In addition, this will improve patient compliance in wearing a splint especially if long term splinting is required. The patient’s safety in increased using the FCT methodology due to the elimination of cast removal using a cast saw (5).

The current developments in casting tape and splinting materials has led to a variety of new uses, including the ability to rapidly apply and implement during emergency situations, sidelines or during half-time of various sporting events (6). Athletic trainer’s knowledge of taping and other plastico-thermic devices allows for the easy integration and use of these new and improved casting materials and techniques.

Lecture Objectives: After attending this session attendees will have learned....

The athletic trainer will learn the importance of Functional Cast therapy. This method of immobilization integrates focused rigidity with functional capabilities. For the athlete, it allows for custom molding and fit of injured areas with the component of flexibility in the non-injured areas. This immobilization technique allows for general and specific support for the contact and collision athlete.

* KEY POINTS
  o What Functional Cast Therapy is and products used.
  o The basic components and techniques used for FCT
  o Provide tips and techniques to improve the ability to work with casting tape
  o Introduce how to integrate Functional Cast Therapy concept and application

Lab Objectives: After attending this session attendees will be able to....

The participant will have the basic skills to add Functional Cast Therapy methods and principles into their current treatment and rehabilitation protocols. In addition, the participants will have a basic
understanding how this material can be utilized rapidly in emergency situations for fracture or severe joint injury.

- Step processes for application, removal and custom molding for FCT including the ankle, wrist and thumb.

REFERENCES