

CONNECTICUT VALLEY HOSPITAL

**Physical Therapy Services**

**Treatment Protocol**

**Re: Soft Tissue Lesions**

**Date: September 14, 2008**

**General Examples of Soft Tissue Lesions Include:**

- Strain
- Sprain Subluxation
- Dislocation
- Muscle/Tendon Rupture or Tear
- Tendinous Lesions
- Synovitis
- Hemarthrosis
- Ganglia
- Bursitis
- Contusion

**The Clinical Manifestations Resulting From Trauma or Pathology are:**

- Dysfunction through adaptive shortening of soft tissue
- Joint dysfunction
- Contractures
- Adhesions
- Reflex Muscle guarding – functional splinting of the muscle
- Intrinsic Muscle Spasm – Pain as a result of altered circulatory or metabolic environment
- Muscle weakness

**Acute Stage – General Treatment Guidelines (0-4 Days)**

**Problems Summarized:**

- Inflammation, pain, edema, muscle spasm
- Impaired movement
- Joint Effusion (if the joint is injured or if there is arthritis)
- Decreased use of associated areas

**Goals:**

- To Control pain, edema and spasm
- To maintain soft-tissue and joint integrity and mobility

- Plan of care: Appropriate dosage of passive movements within limit of pain, specific to structure involved. Appropriate dosage of intermittent muscle setting or electrical stimulation.
- To reduce joint swelling if symptoms are present
  - Plan of Care: May require medical intervention if swelling is rapid. Provide protection (splint, cast).
- To Maintain integrity and function of associated areas
  - Plan of Care: Active assistive, free, or resistive exercises depending on proximity to and effect on the primary lesion. Adaptive or assistive devices as needed to protect the part during functional activities.

### **Sub-Acute Stage – General treatment Guidelines (4-14 Days)**

#### **Problems Summarized:**

- Pain when end of available range of motion is reached
- Decreasing soft-tissue edema
- Decreasing joint effusion (if joints are involved)
- Developing soft-tissue, muscle, and or joint contractures
- Developing muscle weakness from reduced usage
- Decreased functional use of the part and associated areas

#### **Goals:**

- To control pain, edema and joint swelling
  - Plan of Care: Monitor response of tissue to exercise progression, decrease intensity if inflammation increases. Protect healing tissue with assistive devices, splints, tape or wrap. Gradually increase the time the joint is free to move each day. Ultrasound at rate of 4 watts to a 6x6 inch area x5 Minutes. Other superficial heat modalities, i.e. Hydrocollator Pack, Paraffin, Whirlpool, Diathermy may be utilized
- To progressively increase soft-tissue muscle strength and/or mobility
  - Plan of Care: Progress from passive to active assistive to active ROM within limits of pain. Gradually increase mobility of related structures if they are tight, use techniques specific to structure.
- To strengthen supporting and related muscles
  - Plan of Care: Initially progress isometric exercises within the client's tolerance; begin cautiously with mild resistance. As range of motion, joint play and healing improve, progress to isotonic exercises with resistance progressing as tolerated.
- To maintain integrity and function of associated areas
  - Plan of Care: Apply progressive resistive exercises, depending on proximity to and effect on the primary lesion. Gradually decrease the amount of support from assistive devices as strength increases.

**\*Precaution:** The signs of inflammation or joint swelling normally decrease early in this stage. Some discomfort will occur as the activity level is progressed, but it should not

last longer than a couple of hours. Signs of too much motion or activity are resting pain, fatigue, induced weakness, and spasm.

**Chronic Stage – General Treatment Guidelines (14-21 Days or until pain free functional use is achieved)**

**Problems Summarized:**

- Pain is experienced only when stress is applied to structures in dysfunction (pain after tissue resistance is met)
- Soft-tissue, muscle, and /or joint contractures or adhesions limit normal range of motion of joint play
- Muscle weakness
- Decreased functional usage of involved part

**Goals:**

- To decrease pain from stress on contractures or adhesions
  - Plan of Care: Modalities. Selective stretching of limiting structures
- To increase soft-tissue, muscle and/or joint mobility
  - Plan of care:
    - Selective stretching
      - Soft-tissue: passive stretch and massage
      - Joint capsules and selected ligaments: joint mobilization
      - Ligaments, tendons and soft-tissue adhesions: cross fiber massage
      - Muscles: active stretching or flexibility techniques
    - Cranio-Sacral Therapy Techniques
    - Myofascial Release Techniques
    - Muscle Energy Techniques
- To progress functional Independence
  - Plan of Care: Continue using supportive and or assistive devices until the range of motion is functional with good joint play and supporting muscle tests Good. Progress functional training in ambulation, stair climbing, or other appropriate activities Continue progressive strengthening exercises and training activities until the muscles are strong enough for the individual's level of function.