* Therapeutic Sports Massage
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* Physiologic Effects of Massage
* Mechanical stimulation of tissues by rhythmically applied pressure and stretching
* Effects of massage may be either *reflexive*or *mechanical*
* Physiologic Effects of Massage
* Reflexive
* Effects sensory and motor nerves locally and some central nervous system response
* Mechanical
* Makes mechanical or histological changes in myofascial structures through direct force applied superficially
* Reflexive Effects
* Attempts to exert effects through skin and superficial connective tissues
* Contact stimulates cutaneous receptors
* Reflex mechanism is believed to be an autonomic nervous system phenomenon
* The reflex stimulus causes sedation, relieves tension, increases blood flow
* Reflexive Effects
* Effects on pain
* Modulates pain through gate control & β-endorphins
* Effects on Circulation
* Increase blood and lymphatic flow
* Effects on Metabolism
* Does not alter general metabolism
* Assists in removal and hastens resynthesis of lactic acid
* Mechanical Effects
* Techniques which stretch a muscle, elongate fascia or mobilize soft tissue adhesions or restrictions
* Always accompanied by some reflex effects
* As mechanical stimulus becomes more effective, reflex stimulus becomes less effective
* Directed at deeper tissues, such as adhesions or restrictions in muscle, tendons, and fascia.
* Mechanical Effects
* Effects on muscle
* Mechanical stretching of intramuscular connective tissue
* To relieve pain and discomfort associated with myofascial trigger points
* Increase blood flow to skeletal muscle
* To retard muscle atrophy following injury
* To increase range of motion
* Does not increase strength or muscle tone
* Mechanical Effects
* Effects on skin
* Increase in skin temperature
* Increases sweating
* Decreases skin resistance to galvanic current
* Mechanically loosens adhesions and softens scar
* Stretches and breaks down fibrous scar tissue
* Breaks down adhesions between skin and subcutaneous tissue
* Psychologic Effects of Massage
* Psychologic effects of massage can be as beneficial as physiologic effects
* ”Hands on" effect helps patients feel as if someone is helping them
* Treatment Considerations and Guidelines
* Knowledge of anatomy essential
* Understanding of existing pathology
* Thorough knowledge of massage principles
* Positioning of Clinician
* Positioning will allow relaxation, prevent fatigue, and permit free movement of arms, hands, and body
* Weight evenly distributed and should shift from one foot to the other
* Fit your hands to contour of area being treated
* Hands should be warm
* Treatment Techniques
* Pressure regulation determined by the type and amount of tissue present and patient's condition
* Rhythm must be steady and even
* Duration depends on the pathology, size of the area being treated, speed of motion, age, size, and condition
* With swelling begin proximally to facilitate lymphatic flow -"uncorking effect"
* Treatment Techniques
* Massage should never be painful
* Direction of forces should parallel muscle fibers
* Begin and end with effleurage
* Make sure patient is warm and in a comfortable, relaxed position
* Body part may be elevated if necessary
* Sufficient lubricant should be used
* Begin with superficial stroking to spread lubricant
* Treatment Techniques
* Stroke should overlap
* Pressure should be in line with venous flow followed by a return stroke
* All strokes should be rhythmic
* Equipment Set Up
* Table
* Linens and pillows
* Lubricant
* Should be absorbed slightly by skin but does not make it slippery
* Combination of one part beeswax to three parts coconut oil
* Other types of lubricants that may be used are olive oil, mineral oil, cocoa butter, hydrolanolin, analgesic creams, alcohol, powder
* Preparation of Patient
* Patient should be in a relaxed, comfortable position
* Part involved in treatment must be adequately supported
* Prone, supine, seated
* Clothing should be removed from part being treated
* Hoffa Massage
* Classical massage technique which uses a variety of superficial strokes
* Effleurage
* Petrissage
* Tapotment
* Vibration
* Effleurage   
  (Stroking)
* Every massage begins and ends with effleurage
* Increases venous and lymphatic flow
* Increases circulation to skin surface
* Start with a light pressure, move centripetally or centrifugally consistently throughout treatment
* Effleurage   
  (Stroking)
* Deep stroking is a form of effleurage, except it is given with more pressure to produce a mechanical effect
* Petrissage  
  (Kneading)
* Consists of kneading manipulations that press and roll muscles under fingers or hands
* Muscles are gently squeezed, lifted, and relaxed
* Hands may remain stationary or move along length of muscle or limb
* Petrissage  
  (Kneading)
* Purpose is to increase venous and lymphatic return and to press metabolic waste products out of affected areas through intensive vigorous action
* Can also break up adhesions between skin and underlying tissue
* Tapotment  
  (Percussion)
* Uses a variety of percussive or beating techniques
* Used to increase circulation and blood flow
* Used to stimulate peripheral nerve endings
* Tapotment  
  (Percussion)
* Hacking
* Tapotment  
  (Percussion)
* Hacking
* Slapping
* Tapotment  
  (Percussion)
* Hacking
* Slapping
* Beating
* Tapotment  
  (Percussion)
* Hacking
* Slapping
* Beating
* Tapping
* Tapotment  
  (Percussion)
* Hacking
* Slapping
* Beating
* Tapping
* Clapping or cupping
* Vibration
* A fine tremulous movement, made by hand or fingers placed firmly against a part causing a part to vibrate
* Hands should remain in contact and a rhythmical trembling movement will come from arms
* Transverse Friction Massage
* Technique for treating chronic tendon inflammation
* Purpose is to increase inflammatory response to progress healing process
* Use strong pressure in perpendicular direction to fibers for 7 to 10 minutes every other day
* Connective Tissue Massage  
  (Bindegewebsmassage)
* Stroking technique carried out in layers of connective tissue on body surface
* Abnormal tension in one part of tissue is reflected in other parts
* Stroking produces a relaxation of muscular tension and a prickling warmth in area
* Used mostly in Europe
* Connective Tissue Massage  
  (Bindegewebsmassage)
* Patient is usually in sitting position
* Basic stroke of pulling performed with tips, or pads, of the middle and ring fingers of either hand
* Stroking technique characterized by a tangential pull on skin and subcutaneous tissues away from fascia
* Technique causes sharp pain in tissue
* Connective Tissue Massage  
  (Bindegewebsmassage)
* No lubricant is used
* Treatments last about 15 to 25 minutes After 15 treatments 2-3 times per week, there should be a rest period of 4 weeks
* Connective tissue massage must be learned and performed initially under direct supervision of someone who has been taught these highly specialized techniques
* Acupresure, Shiatsu, and Myofascial Trigger Points
* Acupressure and Shiatsu points based on ancient Chinese art of acupuncture
* Myofascial trigger points found in skeletal muscle and tendons, in myofascia, in ligaments and capsules surrounding joints, in periosteum, in skin
* May be activated and become painful due to some trauma to muscle occuring either from direct trauma or from overuse
* Acupresure, Shiatsu, and Myofascial Trigger Points
* Pain results from inflammatory response
* Pain usually referred to areas which follow a specific pattern
* Stimulation of these points has been demonstrated to result in pain relief
* Acupressure points and myofascial trigger points are similar
* Acupressure Massage Techniques
* Locate points from chart
* Use fingers or elbow to do small friction- like circular motions
* Amount of pressure applied should be intense and painful
* Patient reports a dulling or numbing effect
* Treatment times range from 1-5 min at several points
* Myofascial Release
* Has also been referred to as *soft tissue mobilization*
* Group of stretching techniques used to relieve soft tissue from abnormal grip of tight fascia
* Myofascial restrictions are unpredictable and may occur in many different planes and directions
* Myofascial Release
* Treatment is on localizing restriction and moving into the direction of the restriction
* Myofascial manipulation relies heavily on experience of clinician
* Myofascial Release Technique
* Preparing clinician’s hands
* Use limited lubricant
* Positoning critical to maximize effects of treatment
* Rolfing  
  (Structural Integration)
* Goal is to balance body within a gravitational field through manual soft tissue manipulation
* If balanced movement is essential at a particular joint but nearby tissue is restrained, both the tissue and the joint will relocate to a position which accomplishes a more appropriate equilibrium
* Rolfing  
  (Structural Integration)
* Technique involves 10 hour long sessions each of which emphasizes some aspect of posture with massage directed toward the myofascia
* Major aspect is to intregrate structural with psychological and emotional aspects
* Trager
* Combines mechanical soft tissue mobilization and neurophysiological reeducation
* Uses gentle, passive, rocking oscillations emphasizing traction and rotation as a relaxation technique
* Attempts to establish neuromuscular control so that more normal movement patterns can be routinely performed
* Indications For Massage
* increase coordination
* decrease pain
* decrease neuromuscular excitibility
* stimulate circulation
* facilitate healing
* restore joint mobility
* remove lactic acid
* alleviate muscle cramps
* increase blood flow
* increase venous return
* retard muscle atrophy
* increase range of motion
* edema
* myofascial trigger points
* stretching scar tissue
* Indications For Massage
* adhesions
* muscle spasm
* myositis
* bursitis
* fibrositis
* tendinitis
* revascularization
* Raynaud's disease
* intermittent claudication
* dysmenorrhea
* headaches
* migraines
* Contraindications For Massage
* arteriosclerosis
* thrombosis
* embolism
* severe varicose veins
* acute phlebitis
* cellulitis
* synovitis
* abscesses
* skin infections
* cancers
* acute inflammatory conditions