



**AMREF INTERNATIONAL UNIVERSITY**  
**SCHOOL OF MEDICAL SCIENCES**  
**DEPARTMENT OF REHABILITATION MEDICINE**  
**BACHELOR OF SCIENCE IN PHYSIOTHERAPY**

**END OF TRIMESTER EXAMINATIONS JANUARY TO APRIL 2025**

**UNIT CODE: PHT 225**

**UNIT NAME: Soft tissue manipulation**

**DATE: 8th APRIL 2025**

**TIME: 9am-11am**

**INSTRUCTIONS**

1. All students will have two (2) hours to complete the examination
2. This is an online exam, Attempt all questions as per the instruction
3. It is the student's responsibility to report any page and number missing in this paper.
4. Check that the paper is complete
5. Total number of pages is 9 including the cover.
6. Read through the paper quickly before you start.
7. Upon finishing the exam paper, on submission, the message 'Your examination has been submitted' will appear.

**Section A. Multiple choice questions. Answer all the questions (30 Marks)**

1. Which of the following BEST describes soft tissue mobilization (STM)?
  - a) A technique involving joint manipulation to improve range of motion.
  - b) A manual therapy technique applying stretching and pressure to soft tissues.
  - c) A form of exercise therapy focused on strengthening muscles.
  - d) The use of modalities like ultrasound to reduce inflammation.
  
2. Which of the following is TRUE regarding STM?
  - a) It always involves joint movement.
  - b) It exclusively uses instruments, not hands.
  - c) It involves applying force to soft tissue without necessarily causing joint movement.
  - d) It's primarily used for bone fractures.
  
3. Which of the following BEST describes wellness massage?
  - a) A massage performed in a hospital setting to treat a diagnosed medical condition.
  - b) A massage that requires a medical prescription or referral.
  - c) A massage focused on relaxation, stress reduction, and general well-being, often performed in spas or hotels.
  - d) A massage technique used exclusively by physical therapists in rehabilitation clinics.
  
4. What is the PRIMARY difference between wellness massage and clinical massage?
  - a) The location where the massage is performed.
  - b) The purpose of the massage; wellness focuses on general well-being, while clinical focuses on treating specific medical conditions.
  - c) The type of massage techniques used.
  - d) The qualifications of the massage therapist.

5. Which of the following is the PRIMARY physiological effect of soft tissue mobilization (STM) related to pain reduction?
  - a) Increased muscle strength
  - b) Improved joint stability
  - c) Decreased neuromuscular excitability
  - d) Enhanced proprioception
6. Which of the following BEST describes the benefits of soft tissue mobilization (STM) in the context of injury recovery?
  - a) Primarily focuses on bone healing after fractures.
  - b) Only effective for acute injuries, not chronic conditions.
  - c) Facilitates healing by improving blood flow, reducing edema, and addressing soft tissue restrictions.
  - d) Replaces the need for other rehabilitation interventions like exercise.
7. Which of the following BEST describes how STM assists the muscular system?
  - a) It directly increases muscle strength.
  - b) It inhibits the inflammatory response in acute injuries.
  - c) It improves muscle tone, flexibility, and range of motion.
  - d) It primarily focuses on correcting bony misalignments.
8. Which of the following is NOT a primary indication for soft tissue mobilization (STM)?
  - a) Muscle spasms and tightness
  - b) Scar tissue restrictions
  - c) Bone fractures
  - d) Fascial tethering
9. Soft tissue manipulation should be avoided in which of the following situations?
  - a) Chronic pain
  - b) Muscle spasm
  - c) Acute inflammation
  - d) Limited range of motion
10. Which of the following is a contraindication to massage therapy?
  - a) Muscle soreness after exercise
  - b) Active skin infection
  - c) Mild joint stiffness
  - d) Recent scar tissue

11. Which of the following is NOT a recommended practice regarding jewelry during massage therapy?
- a) Therapists should remove all jewelry from their wrists and fingers.
  - b) Patients should remove any jewelry from the area being treated.
  - c) Therapists can wear small rings with smooth settings.
  - d) Therapists should advise patients on appropriate attire to minimize jewelry.
12. Why is proper draping and undressing protocol important in massage therapy?
- a) It helps the therapist assess the patient's posture.
  - b) It makes the massage techniques more effective.
  - c) It protects patient modesty and ensures comfort, while also obtaining consent.
  - d) It saves time during the treatment session.
13. Which of the following is a primary benefit of massage therapy for cancer patients, as suggested by research reviews and clinical studies (at least in the short term)?
- a) Increased red blood cell count
  - b) Reduced pain
  - c) Cure for cancer
  - d) Increased muscle mass
14. According to the information provided, which of the following areas should be avoided during massage therapy for a cancer patient?
- a) Areas of healthy skin
  - b) Tumor site
  - c) Areas away from radiation treatment
  - d) Areas with no prior injury
15. Which of the following statements BEST describes the role of soft tissue dysfunction in musculoskeletal symptoms?
- a) Soft tissue dysfunction is rarely a contributing factor to musculoskeletal pain.
  - b) Soft tissue dysfunction only plays a secondary role in musculoskeletal symptoms.
  - c) Dysfunctions of the soft tissue system play a primary role in the onset and perpetuation of musculoskeletal symptoms.
  - d) Soft tissue dysfunction is only relevant in cases of direct trauma.

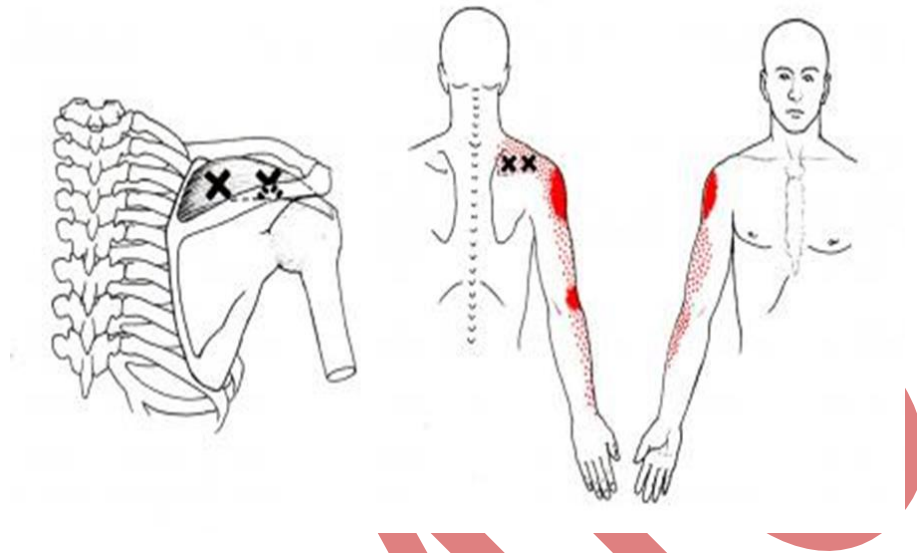
16. What is the MOST common factor that precipitates soft tissue pain and functional impairment?
- Infection
  - Autoimmune disease
  - Trauma
  - Congenital abnormalities
17. Imbalances in the connective tissue matrix, including the fascial system, can result in:
- Increased mobility and flexibility.
  - Decreased mobility or restrictions.
  - Improved nerve conduction.
  - Enhanced muscle strength.
18. What is the MOST likely consequence of inadequate remodeling stimuli during scar formation?
- Increased scar elasticity and improved function
  - Inextensible scar with poor functional capacity
  - Rapid scar resolution and minimal adhesion formation
  - Enhanced blood supply to the scar tissue
19. Which of the following is a primary component of soft tissue dysfunction resulting from forced immobilization?
- Increased collagen synthesis
  - Ground substance dehydration
  - Increased hyaluronic acid production
  - Enhanced tissue vascularity
20. Which of the following BEST describes the myofascial cycle?
- A cycle of muscle strengthening and flexibility improvements.
  - A self-limiting process of tissue repair following injury.
  - A self-perpetuating cycle of pain and dysfunction within the myofascial system.
  - A linear progression of fascial adaptation to exercise.
21. Which of the following BEST describes the application of Transverse Friction Massage (TFM)?
- Applying pressure parallel to the direction of the tissue fibers.
  - Applying pressure perpendicular to the direction of the tissue fibers.
  - Applying a kneading motion to the affected area.
  - Applying a gliding stroke along the length of the muscle.

22. Transverse Friction Massage (TFM) is commonly used to treat which of the following conditions?
- a) Osteoarthritis.
  - b) Fractures.
  - c) Tendinitis, ligament sprains, and scar tissue restrictions.
  - d) Nerve entrapments.
23. Which of the following BEST describes the primary goal of myofascial release?
- a) Strengthening muscles
  - b) Improving joint mobility
  - c) Releasing restrictions in the fascia
  - d) Reducing inflammation
24. Which of the following BEST describes a direct fascial release technique?
- a) Gentle pressure applied, allowing the fascia to release on its own.
  - b) Sustained pressure applied directly to the restricted fascia.
  - c) Movement of the restricted fascia in the direction it wants to move.
  - d) A combination of gentle pressure and active movement by the patient.
25. A therapist is using a technique that involves applying sustained pressure to a specific area of restricted fascia. The goal is to elongate and soften the tissue. Which technique is the therapist MOST likely using?
- a) An indirect fascial release technique.
  - b) Muscle Energy Technique (MET).
  - c) A direct fascial release technique.
  - d) Strain-Counter strain technique.
26. What is the "jump sign" in the context of trigger point therapy?
- a) A visible muscle contraction
  - b) A behavioral response to pressure on a trigger point, where patients are startled by the intense pain.
  - c) Referred pain experienced distant from the trigger point
  - d) Local tenderness felt at the trigger point site

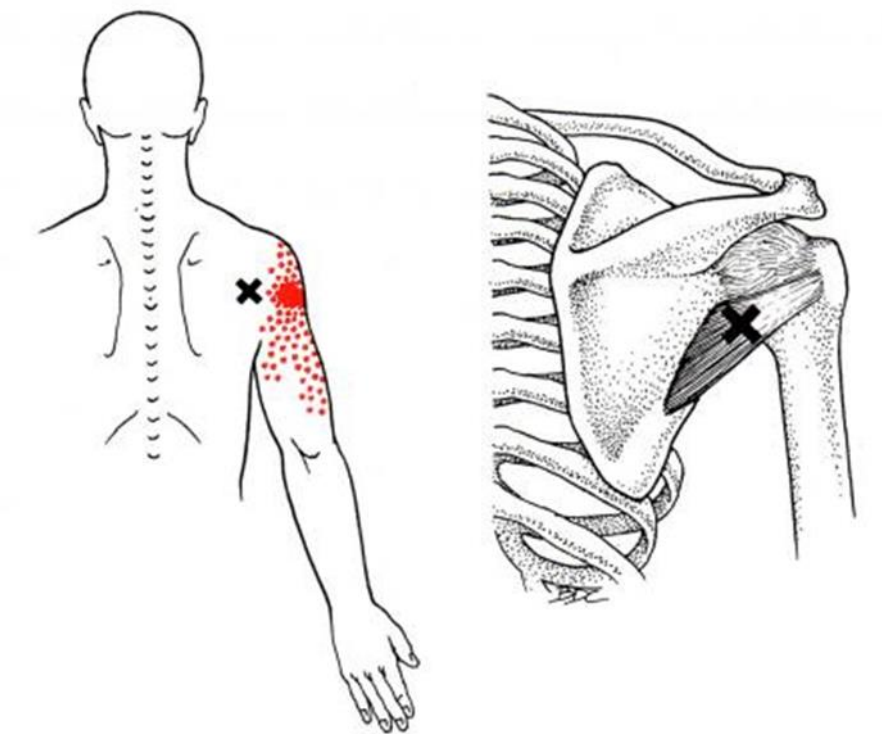
27. Which of the following BEST describes accessory movements?
- a) Movements a patient can actively perform.
  - b) Movements that occur within a joint and cannot be actively performed by the individual.
  - c) Movements that include roll, spin, and slide, and accompany physiological movements.
  - d) Movements assessed in a close-packed joint position.
28. Which of the following is an absolute contraindication to Maitland mobilization?
- a) Muscle spasm
  - b) Acute inflammation
  - c) Joint stiffness
  - d) Minor joint effusion
29. Which of the following is a PRIMARY indication for Maitland mobilizations?
- a) Muscle weakness
  - b) Joint pain and stiffness
  - c) Ligament rupture
  - d) Fracture
30. A patient presents with joint stiffness. Which Maitland mobilization grade would be MOST appropriate to address this stiffness, involving a large amplitude movement that moves into stiffness or muscle spasm?
- a) Grade I
  - b) Grade II
  - c) Grade III
  - d) Grade IV

**Section B. Short structured questions. Answer all the questions. (20 Marks)**

31. Name the muscle that corresponds to the following trigger points displayed in the diagram below (1 Mark).



32. Name the muscle that corresponds to the following trigger points displayed in the diagram below (1 Mark).



33. Differentiate between direct and indirect myofascial release (2 Marks).
34. Discuss Maitland grading from grade 1 to grade IV (4 Marks).
35. Dysfunctional state of the fascia is also called restricted or decreased play. Discuss these two factors that contribute to this fascia dysfunction
- (a) Scar tissue (3 Marks)
  - (b) Ground substance dehydration (4 Marks)
36. Explain how to carry out upper limb dynamic nerve test (radial nerve) (5 Marks)

**Section C. Long structured question. Attempt the question provided (20 Marks)**

37. Patient X has experienced persistent lower back pain for four months. They have been receiving care from their primary care physician without lasting relief. They have now been referred for physical therapy. Your assessment indicates soft tissue mobilization (STM) would be beneficial. Please discuss the following related to this case (20 Marks)
1. Patient preparation
  2. Therapist preparation
  3. Room preparation
  4. Ethical considerations
  5. Choice of three ideal STM techniques and their justifications.