



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

END OF TRIMESTER EXAMINATIONS JANUARY TO APRIL 2026

UNIT CODE: PHT 236

UNIT NAME: Musculoskeletal disorders 1 Upgrading

DATE: 16th April 2026

TIME: 6PM-8PM

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 15 including the cover.**
- 6. Read through the paper quickly before you start.**

Section A. MCQ questions. Answer all the questions

1. Which cervical vertebra is statistically the most commonly fractured (~30%)?
 - A. C1
 - B. C2
 - C. C7
 - D. T1
2. A patient has suffered a C1 fracture. Based on common mechanisms of injury, which of the following most likely occurred?
 - A. A high-speed rear-end collision
 - B. Axial loading (e.g., diving into shallow water)
 - C. Sudden forceful rotation of the neck
 - D. Prolonged poor posture while sitting
3. The "fracture healing triad" consists of:
 - A. Reduction, Casting, Surgery
 - B. Reduction, Immobilization, Rehabilitation
 - C. Diagnosis, Treatment, Follow-up
 - D. Assessment, Intervention, Evaluation
4. A patient reports "pins and needles" specifically on the dorsal surface of the proximal phalanx of the thumb. During your physical exam, you note weakness in wrist extension but normal elbow extension. Which of the following is the most likely clinical finding?
 - A) C5 Nerve Root compression
 - B) C6 Nerve Root compression
 - C) Radial Nerve entrapment at the spiral groove
 - D) Median Nerve entrapment at the pronator teres
5. You are assessing a patient with suspected cervical disc herniation. The patient has a diminished triceps reflex and sensory changes on the dorsal aspect of the index finger. Which myotome would you most expect to be weak if this follows a single nerve root pattern?
 - A. Shoulder Abduction
 - B. Elbow Flexion
 - C. Elbow Extension
 - D. Finger Abduction
6. A patient displays a "Trendelenburg sign" and weakness in foot eversion, but has a normal patellar reflex. Sensation is diminished on the lateral foot. Based on the most common nerve root distributions, which level is the primary driver of this clinical picture?
 - A. L4
 - B. L5

- C. S1
 - D. S2
7. A patient presents with difficulty during the "heel-off" phase of gait and an inability to perform a single-leg calf raise. Which sensory finding would most strongly support a diagnosis of S1 radiculopathy over an L5 radiculopathy?
- A. Numbness over the dorsal surface of the great toe
 - B. Sensory loss along the lateral border of the foot and the fifth digit
 - C. Diminished sensation over the medial malleolus
 - D. Numbness localized to the anterior mid-shin
8. Based on the initial evaluation of the 73-year-old patient (Day 0 post-TKR), which of the following represents the most appropriate and comprehensive Long-Term Goal (LTG) to be achieved by the time of discharge from sub-acute rehab or home health (typically 4 weeks)?
- A. Patient will increase knee flexion range of motion to 90 degrees and knee extension to 0 degrees to allow for improved seated comfort and limb alignment.
 - B. Patient will ambulate 150 feet independently with a rolling walker and negotiate one step with supervised handrail use to ensure safe entry into her home.
 - C. Patient will demonstrate 4/5 strength in the affected quadriceps and hamstrings to improve stability during the stance phase of gait.
 - D. Patient will perform all Bed Mobility and Transfers with Independent status to reduce the physical burden on her husband during daily activities.
9. A patient is admitted following a fall from a significant height, landing on one extended leg. Radiographs reveal a "Vertical Shear" fracture pattern with superior displacement of the hemipelvis. Which of the following clinical findings is most consistent with the mechanical instability of this specific injury?
- A. Rupture of the symphysis pubis only, with intact posterior sacroiliac ligaments.
 - B. Gross multi-planar instability due to complete disruption of the sacroiliac ligaments and the pelvic floor (sacrospinous and sacrotuberous ligaments).
 - C. Internal rotation of the iliac wing with an associated "buckle" fracture of the sacrum.
 - D. Stable weight-bearing capacity through the unaffected limb with no risk of further cephalad migration.
10. Unstable pelvic fractures (such as Vertical Shear or APC Type III) are considered life-threatening medical emergencies primarily due to which of the following anatomical factors?
- A. The risk of long-term disability and permanent gait deviations caused by the disruption of the sacroiliac joint.

- B. The potential for the "Open Book" deformity to increase the volume of the retroperitoneal space, allowing for massive, non-tamponaded venous and arterial hemorrhage.
 - C. The immediate risk of sepsis due to the proximity of the fracture fragments to the descending colon and the rectum.
 - D. The high likelihood of bilateral femoral nerve avulsion, leading to immediate and irreversible paralysis of the lower extremities.
11. A 71-year-old female presents with a displaced femoral neck fracture. The surgeon is debating between an ORIF and a Hemiarthroplasty. According to clinical guidelines, which of the following patient profiles most strongly indicates that ORIF is the appropriate solution, assuming the femoral head remains viable for weight-bearing?
- A. High premorbid activity level, minimal underlying osteoporosis, and a baseline of high mental function with no pre-existing degenerative joint disease.
 - B. Low premorbid activity level, significant comorbid medical conditions, and advanced pre-existing degenerative joint disease in the ipsilateral hip.
 - C. Moderate cognitive impairment (Dementia), high degree of osteoporosis, and a sedentary premorbid lifestyle.
 - D. History of severe osteoarthritis in the hip, high premorbid activity level, and multiple comorbid conditions including uncontrolled Type 2 Diabetes
12. A patient's MRI report indicates a "burst fracture" involving the posterior half of the L1 vertebral body and the posterior longitudinal ligament, but the anterior longitudinal ligament and the facet joint capsules remain intact. According to the Three-Column Theory, which columns are compromised?
- A. Only the Anterior column
 - B. The Anterior and Middle columns
 - C. Only the Middle column
 - D. The Middle and Posterior columns
13. A 68-year-old male with a history of chronic low back pain is referred for mobilization. During the subjective history, he mentions a recent diagnosis of an abdominal aortic aneurysm (AAA) being monitored by his vascular surgeon. He also reports mild morning stiffness and a 10-year history of controlled hypertension. Which of the following is the most appropriate clinical decision regarding the use of Maitland spinal mobilizations?
- A. Proceed with Grade I and II oscillations only, as these are gentle enough to not affect intra-abdominal pressure.
 - B. Mobilization is strictly contraindicated because mechanical pressure and positioning could risk catastrophic rupture of the aneurysm.

- C. Mobilization is safe as long as the patient is treated in a prone position to stabilize the spine and avoid direct pressure on the abdomen.
 - D. Proceed with mobilization but only if the patient has no "excessive pain" during the pre-manipulative hold.
14. You are assessing a 55-year-old female for neck pain. Her medical record indicates she is currently undergoing active chemotherapy for metastatic breast cancer and was recently diagnosed with severe osteoporosis. She is requesting "manual stretching" for her stiff neck. According to the Maitland principles of safety, why is manual mobilization contraindicated for this patient?
- A. The risk of pathological fracture due to severe osteoporosis and the potential for spinal instability or bony compromise from malignancy.
 - B. Active chemotherapy causes acute inflammation of the joint capsules, making Grade III mobilizations ineffective.
 - C. Mobilization would cause "excessive pain," which is the only absolute contraindication for this specific patient.
 - D. Manual therapy is only contraindicated if there is a confirmed ligament rupture in the cervical spine; otherwise, it is considered safe.
15. You are assessing a patient with high irritability following an acute cervical strain. The patient is unable to tolerate weight-bearing positions. Based on the provided contraindications and clinical guidelines, why would SNAGs be an inappropriate choice for this patient?
- A. SNAGs can only be applied to the rib cage and lumbar spine, not the cervical spine.
 - B. SNAGs are contraindicated for single-level symptoms and should only be used for multi-level pain.
 - C. SNAGs are not the treatment of choice for highly irritable conditions.
 - D. SNAGs must strictly be performed in weight-bearing positions and cannot be adapted.
16. A patient is referred to physical therapy with the diagnosis of low back pain. The patient presents with an anterior pelvic tilt. The physical therapist believes the abnormal posture may be due to shortened lower extremity musculature. Shortening of which muscles may influence this posture?
- A. Hamstrings
 - B. Iliopsoas
 - C. Gluteus maximus
 - D. Piriformis
17. When measuring elbow flexion range of motion with a goniometer, where should the therapist align the fulcrum of the goniometer?
- A. At the lateral epicondyle of the humerus

- B. At the lateral midline of the humerus
 - C. At the olecranon
 - D. At the radial head
18. Which of the following best describes the typical capsular pattern of the glenohumeral (shoulder) joint?
- A. Significant limitation of abduction, followed by external rotation, then internal rotation.
 - B. Equal limitation of all passive movements.
 - C. Significant limitation of external rotation, followed by abduction, then internal rotation.
 - D. Significant limitation of internal rotation, followed by external rotation, then abduction.
19. Understanding a patient's irritability is MOST important for a physiotherapist to:
- A. Determine the patient's personality type.
 - B. Identify exercises that will immediately cure the condition.
 - C. Effectively alleviate irritating symptoms and promote recovery.
 - D. Predict the exact duration of the patient's rehabilitation.
20. You are assessing a patient with chronic Achilles tendinopathy. They report a pain level of 2/10 and state they have no pain while sitting or sleeping. Pain is only elicited when the therapist applies firm overpressure at the very end-range of passive dorsiflexion. Which classification best fits this patient's profile?
- A. High Irritability
 - B. Moderate Irritability
 - C. Low Irritability
 - D. Irritable Chronic Syndrome
21. A patient with moderate irritability (Pain 5/10) is performing a prescribed home exercise program. During the session, they report intermittent pain at rest and pain specifically when they hit the end-range of their active range of motion (AROM). To ensure treatment efficiency and safety, the therapist should:
- A. Shift to a "High Irritability" protocol because any pain at rest is a contraindication to exercise.
 - B. Maintain a moderate intensity, ensuring exercises do not significantly exacerbate the resting pain or move beyond the end-range threshold.
 - C. Treat the patient as "Low Irritability" because the functional disability is only moderate.
 - D. Apply ice and cancel the session, as the presence of pain at rest indicates an acute infection.

22. A 55-year-old patient with a history of hypertension describes a "throbbing and pounding" sensation in their calf that worsens with activity. During the physical exam, you note that the pain does not change with spinal movements. From the provided information here in the question which system is the most likely source of the symptoms?
- A. Neurogenic disorder
 - B. Musculoskeletal disorder
 - C. Vascular disorder
 - D. Emotional disorder
23. A patient following a car accident describes their neck pain as "sharp, stabbing, and burning," often accompanied by a "scalding" sensation down the arm. They deny any "dull or aching" feelings. Which of the following best categorizes this patient's pain profile?
- A. A typical musculoskeletal strain of the trapezius.
 - B. A neurogenic disorder, likely involving nerve root irritation.
 - C. A vascular disorder involving the vertebral artery.
 - D. An emotional disorder resulting from the trauma of the accident.
24. During an initial evaluation, a patient with chronic low back pain uses words such as "suffocating, agonizing, and exhausting" to describe their daily experience. They also mention feeling "nauseated" by the intensity of the pain. Which of the following statement is true ?
- A. An underlying musculoskeletal pathology such as a disc herniation.
 - B. A vascular insufficiency in the lumbar spine.
 - C. An emotional disorder or significant psychological overlay.
 - D. A neurogenic disorder causing autonomic dysfunction.
25. A patient reports a "dull, sore, and heavy" feeling in their shoulder after a weekend of gardening. The pain is localized and described as "hurting and aching" whenever they reach overhead. Based on patients report, the therapist should prioritize an assessment of which system?
- A. Vascular system
 - B. Nervous system
 - C. Musculoskeletal system
 - D. Emotional system
26. When a patient's subjective symptoms are found to have a psychogenic cause, which of the following best describes the nature of their condition based on the provided categories?
- A. The symptoms are caused by underlying mechanical instability of the spine.
 - B. The symptoms are an exaggerated response rooted in the patient's psychological or emotional state rather than physical tissue damage.
 - C. The symptoms are exclusively the result of a vascular disorder like an aneurysm.
 - D. The symptoms are caused by a neurogenic disorder such as a pinched nerve.

27. A student therapist is asked to describe the entire gait cycle using the "combination of activities" mentioned in the text. Which description is most accurate?
- A. Gait is 100% Closed Kinetic Chain because we are always walking on the ground.
 - B. Gait is 100% Open Kinetic Chain because the body is moving through space.
 - C. Gait involves a 60/40 split where the Stance phase is Closed Kinetic Chain and the Swing phase is Open Kinetic Chain.
 - D. Gait is only considered a combination of chains if the patient is using an assistive device like a walker.
28. A patient with suspected fibromyalgia reacts strongly when you barely touch the skin of their forearm with a cotton swab, pulling their arm back quickly in a "Jump Sign" response. This reaction to a non-noxious stimulus is classified as:
- A. Grade II Tenderness
 - B. Grade III Tenderness
 - C. Grade IV Tenderness
 - D. Grade I Tenderness
29. During "Terminal Swing," the hamstrings must work intensely to decelerate the forward-moving tibia. If the hamstrings are injured or weak, what is the most likely clinical observation just before Initial Contact?
- A. A "slapping" sound of the foot hitting the floor (Foot Slap).
 - B. An uncontrolled "snapping" of the knee into full extension or hyperextension.
 - C. A failure to achieve toe-off, causing the patient to trip.
 - D. Increased pelvic rotation to the opposite side to assist with limb advancement.
30. A patient is struggling with "Limb Clearance" during the swing phase. You observe that their knee flexion is insufficient during the first segment of the swing cycle (immediately after the toe leaves the ground). Which sub-phase are you analysing?
- A. Pre-swing
 - B. Initial Swing
 - C. Mid-swing
 - D. Terminal Swing
31. A patient presents with chronic neck pain following a motor vehicle accident and has recently filed a lawsuit against the other driver. During testing, they demonstrate inconsistent effort and report agonizing pain during light palpation of the skin. This behavior is a known category of symptom magnification associated with?
- A. Psychosomatic overlay
 - B. Acute tissue infection
 - C. Involvement in litigation

- D. Undiagnosed vertebral fracture
32. A patient with Recurrent Syndrome reports that their back pain returns every few months, usually after long periods of sitting at work. They describe the pain as a dull ache that is slowly increasing in frequency. Between these acute episodes, they have full, pain-free ROM. What is the primary focus of a McKenzie-based intervention for this patient?
- A. Intensive core strengthening to stabilize a hypermobile segment.
 - B. Passive modalities to reduce acute inflammation during each flare-up.
 - C. Education on "Slouch-Overcorrect" and maintaining the lumbar lordosis to prevent mechanical relapse.
 - D. Grade V high-velocity thrust manipulation to the sacroiliac joint.
33. A student therapist is performing a mobilization "into resistance" for a stiff joint. The patient complains of a "sharp, familiar pain" during the glide. Does this application meet the criteria for a successful Mulligan mobilization?
- A. Yes, because mobilizations must be performed into resistance to change joint mechanics.
 - B. Yes, provided that the range of motion has improved by at least 10 degrees.
 - C. No, because while mobilizations are performed into resistance, they must remain entirely pain-free.
 - D. No, because resistance should always be avoided when performing apophyseal glides.
34. A 42-year-old patient presents with an acute, sudden onset of sharp central low back pain after bending over to tie their shoes this morning. The pain is constant, and the patient is currently stuck in a slight "shifted" lumbar posture. According to the McKenzie classification, which syndrome is most consistent with this presentation?
- A. Dysfunction Syndrome
 - B. Postural Syndrome
 - C. Derangement Syndrome
 - D. Adherent Nerve Root
35. Post-fasciotomy for compartment syndrome, the primary goal of physiotherapy is:
- A. Immediate weight-bearing activities
 - B. Prevention of contractures and adhesions
 - C. Strengthening exercises to regain muscle power
 - D. High-intensity cardiovascular training
36. The most common mechanism of injury leading to an anterior shoulder dislocation is:
- A. Direct blow to the anterior shoulder
 - B. Fall on an outstretched arm with the arm externally rotated
 - C. Fall on an outstretched arm with the arm internally rotated
 - D. Hyperextension of the shoulder joint

37. A 55-year-old male patient presents with a compression fracture of L1 following a fall from a height. He has been on bed rest for 3 weeks and is now complaining of severe back pain, decreased mobility, and muscle weakness in his lower limbs. Which of the following is the most appropriate initial physiotherapy intervention for this patient?
- A. Aggressive mobilization and strengthening exercises
 - B. Pain management and gentle mobilization
 - C. Continuous bed rest and medication
 - D. Surgical decompression followed by physiotherapy
38. A patient presents with pain that is primarily aggravated by prolonged sitting and relieved by changing positions. This is most likely:
- A. Derangement Syndrome
 - B. Dysfunction Syndrome
 - C. Postural Syndrome
 - D. Other/Non-Mechanical Syndrome
39. Which of the following conditions would typically benefit from Maitland techniques?
- A. Osteoporosis with vertebral fractures
 - B. Rheumatoid arthritis in an acute phase
 - C. Spinal stenosis with neurogenic claudication
 - D. Cervical spondylosis with limited neck mobility
40. The Ober Test is used to assess tightness in which of the following muscles
- A. Hamstring muscles
 - B. Quadriceps muscle
 - C. The adductors muscle of the thigh
 - D. Iliotibial band
41. A 45-year-old single mother presents with a two-week history of right neck pain radiating down the medial aspect of his forearm. He describes the pain as a sharp, burning sensation that worsens with prolonged overhead activities and carrying heavy objects. He also reports occasional numbness and tingling in the thumb, index, and middle fingers of his right hand. Which upper limb test would be most appropriate to assess potential nerve root involvement?
- A. Median bias upper limb tension test
 - B. Spurling's Test
 - C. Ulna bias upper limb tension test
 - D. Radial bias upper limb tension test
42. Which of the following is NOT a differential diagnosis for fat embolism?

- A. Acute respiratory distress syndrome
 - B. Heart attack
 - C. Pneumonia
 - D. Pulmonary embolism
43. Which of the following muscles are NOT assessed for tightness using modified Thomas test
- A. Rectus femoris
 - B. Hamstring
 - C. Gluteus Maximus
 - D. Iliopsoas
44. Which muscle is being tested in the following description? The patient is seated with the elbow flexed 70-90 degrees and the forearm fully supinated. Pressure is applied at the distal forearm into elbow extension.
- A. Brachialis
 - B. Brachioradialis
 - C. Biceps brachii
 - D. Triceps
45. During surgery to remove an apical lung tumor, the long thoracic nerve was injured, Muscle testing of the serratus anterior demonstrates its strength to be 3+/5. What is the BEST initial exercise for this patient?
- A. Standing wall push-ups
 - B. Standing arm overhead lifts using hand weights
 - C. Supine arm overhead lifts using weights
 - D. Sitting arm overhead lifts using a pulley
46. A patient presents with weakness with myotome testing of the right upper extremity. The patient is unable to maintain a flexed elbow against the therapists pressure towards elbow extension. Which of the following dermatomal patterns coincides with this pattern of weakness?
- A. Medial end of clavicle
 - B. Lateral elbow
 - C. Fifth digit/ little finger
 - D. Medial elbow

47. A patient presents with decreased sensation of bilateral feet. The loss of sensation is in the entire area that a sock would cover. What is the most likely cause of this distribution of sensory loss?
- A. L5 dermatome sensation loss
 - B. Sciatic nerve sensation loss
 - C. Peripheral neuropathy
 - D. Lesion of the spinal cord
48. You are evaluating a patient with a significant thoracic kyphosis and forward head posture. He reports a frequent loss of balance with falls in the anterior/forward direction. What is the ideal skeletal alignment to maintain balance in standing with minimal effort?
- A. The body's center of mass should be slightly posterior to the base of support
 - B. The body's center of mass should be slightly anterior to the base of support
 - C. The body's center of mass should be over the base of support
 - D. The position of the center of mass does not contribute to balance
49. A patient demonstrates painful and limited active range of motion into hip flexion. With passive range of motion, hip flexion is within normal limits and pain free. Which of the following tissues would appear to be the limiting factor for active range of motion into hip flexion?
- A. Contractile tissue (muscle)
 - B. Ligament
 - C. Cartilage
 - D. Joint capsule
50. Which of the following is typical of the range of motion assessment in normal, pain free joints?
- A. Passive range of motion is slightly greater than active range of motion
 - B. More range is available in sitting compared to supine positioning
 - C. Passive and active range of motion must always be performed in supine or prone
 - D. End feels are always elastic or capsular
51. You are assessing a patient with chronic low back pain. He demonstrates significantly limited range of motion into flexion and extension. When using a tape measurer to determine thoracolumbar range of motion, what landmarks should be utilized?
- A. Inferior: S2, Superior: C7
 - B. Inferior: T12, Superior: C7
 - C. Inferior: L4, Superior: C7
 - D. Inferior: S2, Superior: T2

52. You are assessing a 65-year old patient with right hip pain. When performing a range of motion measurement of hip internal rotation, the patient complains of pain. You document an active range of motion measurement (AROM) of 25 degrees. What is the most appropriate interpretation of the finding?
- A. The patient demonstrates limited hip internal rotation
 - B. The patient demonstrates the normal expected AROM
 - C. The patient demonstrates excessive hip internal rotation
 - D. Range of motion is unable to be assessed due to pain
53. Which blood vessel represents the greatest arterial supply to the hip joint?
- A. Lateral femoral circumflex
 - B. Artery to the head of femur
 - C. Medial femoral circumflex
 - D. Superior gluteal
54. During a passive range of motion (ROM) test of the shoulder, a physical therapist feels a slight resistance followed by a gradual restriction at the end of external rotation. This end feel is most likely caused by tightness in which structure?
- A. Muscle
 - B. Tendon
 - C. Ligament
 - D. Joint Capsule
55. John, a 42-year-old construction worker, presents to the physiotherapy department complaining of pain and stiffness in his right knee joint for the past two weeks. He states the pain started after a misstep while carrying heavy materials at work. He reports difficulty bending and straightening his knee fully, especially in the mornings. John denies any recent injuries or accidents. As a physiotherapist carrying out the examination, which myotome are you likely to assess according to John's history
- A. L4
 - B. L3
 - C. L2
 - D. L1
56. Which of the following is NOT a principle of treatment in the Mulligan concept?
- A. A passive accessory joint mobilization is applied following the principles of Kaltenborn

- B. During assessment the therapist will identify one or more comparable signs.
 - C. During the treatment the therapist can request the patient to perform the comparable sign without applying the glide
 - D. The therapist must continuously monitor the patient's reaction to ensure no pain is recreated.
57. A secretary complains of low back pain radiating down the right leg and foot. The physiotherapist suspects piriformis syndrome. Which of the following special tests is MOST helpful in diagnosing piriformis syndrome?
- A. Ober test
 - B. Straight leg raising
 - C. Slump test
 - D. Achilles Tendon Reflex Test
58. You are a physiotherapist and two patients, John and Mary, have come to see you today complaining of shoulder pain. After conducting a thorough examination, you determine that John has peri-arthritis shoulder and Mary has rotator cuff syndrome. Both conditions can cause shoulder pain, but they have different underlying causes and require specific treatment approaches.
- Which of the following statements is MOST accurate regarding the treatment plan you would develop for John and Mary?
- A. Both John and Mary will benefit from the same physiotherapy exercises to improve range of motion and strengthen the shoulder muscles.
 - B. John's treatment will focus on reducing inflammation and maintaining joint mobility, while Mary's treatment will target strengthening the rotator cuff muscles
 - C. John will require surgery to address the peri-arthritis shoulder, whereas physiotherapy exercises will be sufficient for Mary's rotator cuff syndrome.
 - D. Mary will need to wear a sling for several weeks to immobilize her shoulder, while John will participate in a strengthening program.
59. John, a 32-year-old a truck driver, presents to your physiotherapy clinic for the first time. He complains of persistent lower back pain radiating down his left leg for the past 3 months. The pain started gradually and has worsened to the point where it interferes with his sleep and ability to work. John denies any recent injuries or accidents.

During the assessment the physiotherapist discovers that John reports feeling generally unwell (malaise) and having lost his appetite recently, has noticed unintentional weight loss over the past few months. He has begun experiencing occasional night sweats, particularly in the past few weeks. Furthermore, he has significant tenderness and decreased range of motion in his lower back. There are also neurological signs suggestive of nerve compression in his leg. Which of the following symptoms is LEAST likely to be a constitutional symptom of TB spine?

- A. Localized back pain
 - B. Malaise
 - C. Night sweats
 - D. Weight loss
60. Alex, a 58-year-old construction worker, comes to your clinic complaining of knee pain. He describes a dull ache in his right knee, especially after a long day on the job. He says the pain gets worse with activity and feels somewhat stiff in the mornings. Based on Alex's history and a physical examination, you suspect he has grade 2 osteoarthritis in his right knee.

Which of the following symptoms is NOT typically associated with grade 2 osteoarthritis?

- A. Dull ache in the joint
- B. Radiating pain to the leg
- C. Has pain after walking the whole day
- D. Crepitus sounds felt during knee movement