Knowledge of MSK Conditions

Hello

The examination is conducted as a research study, and is intended to assess your knowledge in regards to musculoskeletal conditions. This examination consists of 25 questions. Each question has 4 multiple-choice answers, and participants can choose 1 answer.

If you are a medical doctor or a physical therapist who works in Saudi Arabia, you are invited to participate in this examination.

Note

You can know your score at the end of the examination. The passing score is 73.1%.

The exam is timed 20 minutes

You will automatically be asked for your name. If you don't wish to provide your name, you can just use your initials. Example:

Name: "Muhammad Abdullah" can be written as "MA".

To start the test, click on the blue icon at the top right of the screen.

Thank you for your participation!

What is your name?

1.

A patient dislocates his knee in a car accident. What structure(s) is/are at risk for injury and therefore MUST be evaluated?

- ☐ A. Patellar tendon
- ☐ B. Medial or lateral meniscus
- ☐ C. Popliteal artery
- ☐ D. Saphenous nerve

2.

What muscle(s) control(s) external rotation of the humerus with the arm at the side?

- ☐ A. Infraspinatus and tere major
- ☐ B. Infraspinatus or teres minor
- ☐ C. Supraspinatus and Subscapularis
- ☐ D. Subscapularis and serratus anterior

3.

A patient comes to the office complaining of low back pain that wakes him up from sleep. What two diagnoses are most concerning?

- ☐ A. Ankylosing spondylitis and degenerative disc disease
- ☐ B. Tumor and infection
- ☐ C. Cauda equina syndrome and spinal cord compression
- ☐ D. Spondylolisthesis or spinal canal stenosis

4.

What is the function of the normal anterior cruciate ligament at the knee?

- ☐ A. Prevents anterior displacement of the femur on the tibia
- ☐ B. Prevent lateral displacement of the femur on the knee
- ☐ C. Prevents anterior displacement of the tibia on the femur
- ☐ D. Prevent medial displacement of the femur on the knee

5.

Rupture of the biceps at the elbow results in weakness of both elbow flexion and_____?

- ☐ A. Pronation
- ☐ B. Elbow extension
- ☐ C. Shoulder flexion
- ☐ D. Supination

6.

How is compartment syndrome treated?

- ☐ A. Splint and Non-steroidal inflammatory drugs
- ☐ B. Soft tissue mobilization
- ☐ C. Extension exercises
- ☐ D. Fasciotomy or surgery

7.

How is motor function of the median nerve tested in the hand?

- ☐ A. Fingers abduction
- ☐ B. Wrist extension
- ☐ C. Forearm supination
- ☐ D. Thumb flexion

8.

A patient presents with new-onset low-back pain. Under what conditions are plain radiographs indicated?

- ☐ A. Age < 50 with pain below the level of the knee
- ☐ B. History of trauma; or steroid use; and systemic symptoms (night pain, fever)
- ☐ C. Pain that is only in the buttock with trunk extension
- ☐ D. With positive crossed straight leg raise test

9.

A patient has a disc herniation pressing on the 5th lumbar nerve root. How is motor function of the 5th lumbar nerve root tested?

- ☐ A. Dorsiflexion of the great toe
- ☐ B. Planterflexion of the great toe
- ☐ C. Dorsiflexion of the ankle
- ☐ D. Planter flexion of the ankle

10.

A 12-year-old boy severely twists his ankle. Radiographs show only soft-tissue swelling. He is tender at the distal aspect of the fibula. What are 2 possible diagnoses?

- ☐ A. Posteriotibial artery and tibial nerve injury
- ☐ B. Ligament sprain and Salter-Harris fracture
- ☐ C. Achilles tendon rupture and cuboid subluxation
- ☐ D. Tarsal tunnel syndrome and subtalar coalition

11.

A 20-year-old injured his knee while playing football. You see him on the same day, and he has a knee effusion. An aspiration shows frank blood. What are the three most common diagnoses?

- ☐ A. Plica synovialis syndrome, suprapatellar lesion, and PVN synovitis
- ☐ B. Popliteal cyst, crystal synovitis, and traumatic arthritis
- ☐ C. Osteochondrosis dissecans, epiphyseal injury, and synovial chondromatosis
- ☐ D. Ligament tear, fracture, and peripheral meniscal tear

12.

Acute septic arthritis of the knee may be differentiated from inflammatory arthritis by which laboratory test?

- ☐ A. Musculoskeletal imaging
- ☐ B. Tissue biopsy
- ☐ C. Measuring uric acids levels
- ☐ D. Analysis of joint aspiration

13.

In elderly patients, displaced fractures of the femoral neck are typically treated with joint replacement, whereas fractures near the trochanter are treated with plates and screws. Why?

- ☐ A. Because of the risk of avascular necrosis or non-union at femoral neck
- ☐ B. Because the femoral neck fracture has associated hip arthrosis
- ☐ C. Because the rate of recovery is faster with hip replacement
- ☐ D. Because of the reduced infection rate with hip replacement

14.

A patient has a displaced fracture near the fibular neck. What structure is at risk for injury?

- ☐ A. Tibial nerve
- ☐ B. Common peroneal nerve
- ☐ C. Iliotibial band insertion
- ☐ D. Lateral collateal ligament

15.

What nerve is compressed in carpal tunnel syndrome?

- ☐ A. Ulnar nerve
- ☐ B. Median nerve
- ☐ C. Radial nerve
- ☐ D. Sural nerve

16.

A patient punches his companion in the face and sustains a fracture of the 5th metacarpal and a 3-mm break in the skin over the fracture. What is the correct treatment, and why?

- ☐ A. Irrigation and debridement because of risk of infection
- ☐ B. Operative reduction of fracture to restore alignment
- ☐ C. Immediate physical therapy to maintain hand function
- ☐ D. Splinting the hand in maximum flexion to allow healing

17.

What are two differences between rheumatoid arthritis (RA) and osteoarthrosis (OA)?

- ☐ A. RA is inflammatory while OA is degenerative
- ☐ B. RA begins later in life while OA begins anytime in life
- ☐ C. RA has morning stiffness while OA has joint effusion
- ☐ D. RA takes years to develop but OA develops rapidly

18.

What muscle(s) is/are involved in lateral epicondylitis (tennis elbow)?

- ☐ A. Wrist flexors
- ☐ B. Wrist extensors
- ☐ C. Elbow extensors
- ☐ D. Elbow flexors

19.

What common problem must all newborns be examined for?

- ☐ A. Congenital dislocation of the hip
- ☐ B. Congenital torticollis
- ☐ C. Erb's palsy
- ☐ D. Gastroesophageal reflux

20.

What are the five most common sources of metastatic bone cancer?

- ☐ A. Breast, prostate, lung, kidney, thyroid
- ☐ B. Liver, pancrease, esophagus, uterus, rectum
- ☐ C. Cerebellum, skin, lymph, ascending colon, bladder
- ☐ D. Cerebrum, descending colon, gallbladder, parathyroid

21.

A patient lands on his hand and is tender to palpation in the "snuff box" (the space between the thumb extensor and abductor tendons). Initial radiographs do not show a fracture. What diagnosis must be considered?

- ☐ A. Radial nerve injury
- ☐ B. Scaphoid fracture
- ☐ C. Avascular necrosis of lunate
- ☐ D. Extensor policis brevis injury

22.

A 25-year-old male is involved in a motor-vehicle accident. His left limb is in a position of flexion at the knee and hip, with internal rotation and adduction of the hip. What is the most likely diagnosis?

- ☐ A. Femoral neck fracture
- ☐ B. Injury to the sciatic nerve
- ☐ C. Hip dislocation
- ☐ D. Ilium fracture

23.

Which malignancy may be present in bone but typically is not detected with a bone scan?

- ☐ A. Giant cell tumor
- ☐ B. Osteoblastoma
- ☐ C. Multiple Myeloma
- ☐ D. Osteoid osteoma

24.

What is a compartment syndrome?

- ☐ A. Compression on a nerve root
- ☐ B. Increased pressure in a closed fascial space
- ☐ C. Inflammation of the periosteum of the tibia
- ☐ D. Stress fracture of the tarsal bones

25.

What is the difference between osteoporosis and osteomalacia?

- ☐ A. Osteoporosis affects women; Osteomalacia affects men
- ☐ B. Osteoporosis affects the axial skeleton; Osteomalacia affects the extremities
- ☐ C. Osteoporosis is decreased bone density; Osteomalacia is decreased bone mineralization
- ☐ D. Osteoporosis affects adults; Osteomalacia affects children only

Notes: Adapted with permission from Wolters Kluwer Health, Inc., Freedman KB, Bernstein J. The adequacy of medical school education in musculoskeletal medicine. J Bone Joint Surg Am. 1998 Oct;80(10):1421-7.[1]

References

1. Freedman KB, Bernstein J. The adequacy of medical school education in musculoskeletal medicine. J Bone Joint Surg Am. 1998 Oct;80(10):1421-7. doi: 10.2106/00004623-199810000-00003. PMID: 9801210.