

Ati comprehensive/Anatomy & Physiology Final Exam from Hole's A&P Textbook Answered Correctly!!

A jogger has stepped in a pothole and sprained his ankle. What organ systems have suffered damage?<<<ANSWER>>>Skeletal

Cardiovascular

Integumentary

Nervous

Muscular

Mrs Bruso, a woman in her 80's, is brought to the clinic with a fractured hip. X-rays reveal compression fractures in her lower vertebral column and extremely low bone density in her vertebrae, hip bones, and femurs. What are the conditions, causes, and treatments?<<<ANSWER>>>weak bones (possibly osteoporosis), which is caused by a deficiency of calcium in the bones; the treatments would either be a to take a vitamin supplement or to drink more milk

Jack, a young man, is treated at the clinic for an accident in which he hit his forehead. When he returns for a checkup, he complains that he can't smell anything. A hurried X-ray of his head reveals a fracture. Which part of the bone was fractured to cause his loss of smell?<<<ANSWER>>>the sides of the bone were fractured to cause a loss of smell

A middle aged young woman comes to the clinic complaining of stiff, painful joints and increasing immobility of her finger joints. A glance at her hands reveals knobby, deformed knuckles. For what condition will she be tested?<<<ANSWER>>>Rheumatic Arthritis

At his 94th birthday party, James was complimented on how good he looked and was asked about his health. He replied, "I feel good most of the time, but some of my joints ache and are stiff, especially my knees, hips, and lower back, and especially in the morning when I wake up." A series of X-rays and MRI's scan taken a few weeks earlier had reveals that the articular cartilage were rough and flaking off, and bone spurs

(overgrowths) were present at the ends of some of James' bones. What is James probable condition?<<<ANSWER>>>Osteoarthritis

Janet, a 10 yr. old girl, is brought to the clinic after falling out of a tree. An X-ray shows she has small fractures of the transverse processes of T3 to T5 on the right side. Janet will be watched for what abnormal spinal curvature over the next several years?<<<ANSWER>>>kyphosis

The serving arm of many tennis players is often significantly larger than the other arm. Explain this phenomenon.<<<ANSWER>>>it is subjected to greater physical stress which causes the bones to grow thicker

Jerry is giving cardiopulmonary resuscitation to Ms. Jackson, an elderly woman who has just been rescued from the waters of Cape Cod Bay. What bone is being compressed?<<<ANSWER>>>sternum

Rita's bone density scan revealed she has osteoporosis. Her physician prescribed a drug that inhibits osteoclast activity. Explain this treatment.<<<ANSWER>>>osteoclasts are the cells that cause the breakdown of the bone matrix so inhibiting this activity will allow less breakdown of the bones

Pete, who has been moving furniture all day, arrives at the clinic complaining of painful spasms in his back. He reports having picked up a heavy table by stooping over. What muscle group has Pete probably strained, and why are these muscles at risk when one lifts improperly?<<<ANSWER>>>-2 muscle groups - extensors and flexors
-extensors - allow for standing and lifting
-flexor muscle - enable flexing, bending forward, lifting, and arching the lower back

During an overambitious workout, a high school athlete pulled some muscles by forcing his knee into extension when his hip was already fully flexed. What muscles did he pull?<<<ANSWER>>>he pulled his hamstring muscles

An emergency appendectomy is performed on Mr. Geiger. The incision was made at the lateral edge of the right iliac abdominopelvic region. Was his rectus abdominis cut?<<<ANSWER>>>no because the cut was not in the correction region

Susan, a massage therapist, was giving Mr. Graves a back rub. What two broad superficial muscles of the back were receiving the "bulk" of her attention?<<<ANSWER>>>the trapezius and latissimus dorsi because they cover most of the back

Mrs. Sanchez says that her 6 yr old son seems to be unusually clumsy and tires easily. The doctor notices that his calf muscles appear to be normal in size. If anything, they seem a bit enlarged rather than wasted. For what condition must the boy be checked? What is the prognosis?<<<ANSWER>>>duchenne muscular dystrophy; it could be very dangerous if it moves to the respiratory system

People with chronic back pain occasionally get relief from a tummy tuck. How does this help?<<<ANSWER>>>weight from the tummy tends to put stress on the back; the back would experience less stress

Gregor, who works at a pesticide factory, comes to the clinic complaining of muscle spasms that interfere with his movement and breathing. A blood test shows that he has been contaminated with organophosphate pesticide, which is an acetylcholinesterase inhibitor. How would you explain to Gregor what this means?<<<ANSWER>>>acetylcholinesterase inhibitor works with the receptors on the muscle telling it when to contract

While riding an unusually large horse, Chao Jung had to spread her thighs wide to span its back, and she pulled the muscles in her medial thighs. Which muscles were these?<<<ANSWER>>>adductor muscles

After surgery, patients are often temporarily unable to urinate, and bowel sounds are absent. Identify the division of the autonomic nervous system that is affected by anesthesia.<<<ANSWER>>>parasympathetic

A brain tumor is found in a CT scan of Mr. Childs' head. The physician is assuming that it is not a secondary tumor (i.e. it did not spread from another part of the body) because an exhaustive workup has revealed no signs of cancer elsewhere in his body. Is the brain tumor more likely to have developed from nerve tissue or from neuroglia? Why?<<<ANSWER>>>neuroglia because nerve cells are amitotic meaning that the tumor is most likely glioma

Amy, a high-strung teenager, was suddenly startled by a loud bang that sounded like a gunshot. Her heartbeat accelerated rapidly. When she realized that the noise was only a car backfiring, she felt greatly relieved but her heart kept beating heavily for several minutes more. Why does it take a long time to calm down after we are scared?<<<ANSWER>>>during sympathetic activation, large amounts of epinephrine from the adrenal medulla pour into the blood and the protein has to be broken down throughout the body

You have been told that the superior and medial part of the right pre-central gyrus of your patient's brain has been destroyed by a stroke. What part of the body is the patient unable to move? On which side, right or left?<<<ANSWER>>>destroyed the trunk, hip, and lower limb region of the primary motor cortex that corresponds to those paralyzed areas on the left side of the body

Following a train accident, a man with obvious head injury was observed stumbling about the scene. An inability to walk properly and a loss of balance were quite obvious. What brain region was injured?<<<ANSWER>>>cerebellum

An elderly woman is admitted to the hospital to have a gallbladder operation. While she was being cared for, the nurse notices that she has trouble initiating movement and has a strange "pill-rolling" tremor of her hands. What cerebral area is most likely involved?<<<ANSWER>>>motor cortex - frontal lobe

A child is brought to the hospital with a high temperature. The doctor states that the child's meninges are inflamed. What name is given to this condition?<<<ANSWER>>>meningitis

A young woman is brought into the emergency room with extremely dilated pupils. Her friends state that she has overdosed on cocaine. What cranial nerve is stimulated by the drug?<<<ANSWER>>>oculomotor

A young man has just received serious burns, resulting from standing with his back too close to a bonfire. He is muttering that he never felt the pain. Otherwise, he would have smothered the flames by rolling on the ground. What part of the CNS might be malfunctioning?<<<ANSWER>>>subarachnoid space

An elderly gentleman has just suffered a stroke. He is able to understand verbal and written language, but when he tries to respond, his words are garbled. What cortical region has been damaged by the stroke?<<<ANSWER>>>broca's area

A 12 yr old boy suddenly falls to the ground, having an epileptic seizure. He is rushed to the emergency room of the local hospital for medication. His follow up care includes a recording of his brain waves to try to determine the area of the lesion. What is this procedure called?<<<ANSWER>>>EEG

Marie Nolin exhibits slow, tentative movements and a very unstable gait. Examination reveals she cannot touch her fingers to her nose with her eyes closed. What is the name of this condition and what part of her brain is damaged?<<<ANSWER>>>multiple sclerosis and damage to the myelin in the central nervous system (CNS)

A newborn baby is unable to hold down any milk. Examination reveals a developmental disorder in which the esophagus fails to connect to the stomach. What survival needs are most immediately threatened?<<<ANSWER>>>nutrition and water

The Chan family was traveling in their car and had a minor accident. The children in the backseat were wearing seat belts, but they still sustained bruises around the abdomen and had some internal organ injuries. Why is this area more vulnerable to damage than others?<<<ANSWER>>>no skeletal protection or soft tissue

John, a patient at Jones City Hospital, is in tough shape. He has a hernia in his inguinal region, pain from an infected kidney in his lumbar region, and severe bruises and swelling in his pubic region. Explain where each of these regions is located.<<<ANSWER>>>Hernia→thigh and trunk meet