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**A nurse practitioner is educating a patient with a recent diagnosis of diabetes about the roles that glucose and insulin play in the disease pathology and the fact that glucose must enter the cell in order to provide energy for the patient. The nurse practitioner knows that which of the following processes allows glucose to enter body cells**

Student Answer:

**Osmosis**

**Facilitated diffusion**

**Active transport**

**Diffusion**

Comments:

Question 4 Question :

**A community health nurse practitioner is teaching a group of female high school students about the importance of regular Papanicolaou (Pap) smears. The nurse recognizes that which of the following items underlies the rationale for this teaching?**

Student Answer:

**The active substitution of normal cells in the cervix correlates to cancer risk.**

**Undifferentiated stem cells are an early indicator of cervical cancer.**

**Cancer of the uterine cervix develops incrementally at a cellular level.**

**Dysplasia in the connective tissue of the cervix is a strong precursor to cancer.**

Comments:

Question 6 Question :

**A nurse practitioner employed in a hospitalist notices that a patient is experiencing muscle atrophy following 2 weeks in traction after a motor vehicle accident. Which of the following factors has most likely contributed to the atrophy of the**

*patient's muscle cells?*

Student Answer:

*High levels of insulin and IGF-1 in the patient's blood during immobilization*

*Denervation of the affected muscles during the time of traction*

*A reduction of skeletal muscle use secondary to the traction treatment*

*Reduced oxygen consumption and cellular function that ensures muscle cell survival*

Comments:

Question 7 Question :

*A 7-year-old boy is admitted to the hospital with a suspected diagnosis of lead toxicity. Which of the following assessment findings is most congruent with the patient's diagnosis?*

Student Answer:

*Decreased deep tendon reflexes*

*Hemoglobin 9.9 g/dL*

*Diffuse muscle pain*

*White blood cells (WBC) 11,000/mm<sup>3</sup>*

Comments:

Question 9 Question :

*Which of the following statements most accurately conveys an aspect of cell injury due to impaired calcium homeostasis?*

Student Answer:

*Normal intracellular calcium ion levels are higher than extracellular levels.*

*Ischemia and certain toxins cause a decrease in cytosolic calcium.*

*Injured cells tend to accumulate calcium.*

*Low calcium levels cause an activation of damaging enzymes.*

Comments:

Question 10. Question :

*The NP is providing care for a 21-year-old female patient with gas gangrene of a compound fracture in her arm. Which of the following assessment findings would the nurse most reasonably expect to find when caring for a patient with a diagnosis of gas gangrene?*

Student Answer:

*Inflammation of the affected tissue*  
*A positive culture for Staphylococcus*  
*Spreading edema*  
*Impaired alveolar gas exchange*

Comments:

Question 17. Question :

*A 6-year-old girl with a diagnosis of Marfan syndrome is being assessed at a community health clinic. Which of the following assessments would be the health care professional's lowest priority?*

Student Answer:

*A test of the child's visual acuity*  
*A musculoskeletal assessment*  
*Tests of kidney function*  
*Cardiovascular assessment*

Comments:

Question 22. Question :

*An infant who is four days postpartum has been diagnosed with a single-gene disorder. The parents of the child have a number of questions about the etiology of the health problem, which the physician is attempting to address in detail. Which of the following teaching points most accurately captures an aspect of single-gene congenital disorders?*

Student Answer:

*Affected genes are present on autosomal chromosomes rather than sex chromosomes.*

*The majority of single-gene disorders manifest near the time of puberty.*

*A particular defect can be caused by mutations at one of several different loci.*

*Single-gene disorders are associated with existing rather than new mutations.*

Comments: