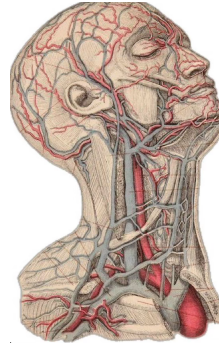


Test bank - Lectures of week 1 - MSS & Global

By Hind Shaker Suhwail

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Anatomy



Q1. A surgeon accidentally damages the facial nerve within the parotid gland. Which function will remain intact?

- A) Closing the eyes
- B) Raising the eyebrows
- C) Tasting from the anterior 2/3 of the tongue
- D) Smiling

Q2. A patient presents with right-sided facial droop and inability to close the right eye. Sensation on the face is intact. Where is the lesion?

- A) Right trigeminal nerve
- B) Right facial nerve
- C) Left facial nerve
- D) Right oculomotor nerve

Q3. A patient has difficulty raising their eyebrows, closing their eyes, and smiling on the left side. There is no limb weakness. The lesion is most likely in the:

- A) Left cerebral cortex
- B) Left facial nerve at the stylomastoid foramen
- C) Right cerebral cortex
- D) Left trigeminal nerve

Q4. A 20-year-old man has a swollen, red, and painful left eye. He also has fever and a headache. Two days ago, he squeezed a pimple on his nose. What is the most serious complication that could happen?

- A) Sinus infection
- B) Eye allergy
- C) Cavernous sinus thrombosis
- D) Ear infection

Q5. Which veins form the retromandibular vein?

- A) Supratrochlear and supraorbital veins
- B) Superficial temporal and maxillary veins
- C) Anterior and posterior facial veins
- D) External jugular and posterior auricular veins

Q6. The angular artery is a terminal branch of the:

- A) Maxillary artery
- B) Superficial temporal artery
- C) Facial artery
- D) External carotid artery

Q7. A trauma patient has bleeding from the superficial temporal artery. Which major artery should be compressed to control the bleeding?

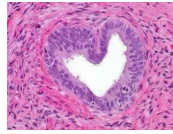
- A) Facial artery
- B) Common carotid artery
- C) External carotid artery
- D) Internal carotid artery

Q8. The occipitofrontalis muscle is connected by which structure?

- A) Epicranial aponeurosis
- B) Loose areolar tissue
- C) Pericranium
- D) Temporal fascia

Answers: C B B C B C C A

Histology



Q1. The inner root sheath of the hair follicle:

- a) Contains melanocytes
- b) Is continuous with the epidermis
- c) Disintegrates at the level of the sebaceous gland
- d) Takes part in hair formation

Q2. A patient complains of excessive sweating on the palms and soles. Which gland is most responsible?

- a) Sebaceous gland
- b) Eccrine sweat gland
- c) Apocrine sweat gland
- d) Mammary gland

Q3. What type of hair appears during fetal development?

- a) Terminal hair
- b) Down hair
- c) Lanugo
- d) Vellus hair

Q4. If a person's Pacinian corpuscles were damaged, they would have difficulty detecting:

- a) Pain and itching
- b) Vibration and deep pressure
- c) Fine touch and texture
- d) Temperature changes

Q5. A patient presents with a blistering skin condition. Which layer of the skin is most likely affected in blister formation?

- A) Stratum corneum
- B) Epidermal-dermal junction
- C) Reticular layer of the dermis
- D) Hypodermis

Q6. A histology slide shows dead, flattened, enucleated keratinized cells. Which epidermal layer is being observed?

- A) Stratum basale
- B) Stratum granulosum
- C) Stratum spinosum
- D) Stratum corneum

Q7. Which of the following layers is found only in thick skin?

- A) Stratum basale
- B) Stratum spinosum
- C) Stratum lucidum
- D) Stratum corneum

Q8. A patient has a genetic defect in desmosomes. Which layer of the epidermis is most affected?

- A) Stratum corneum
- B) Stratum granulosum
- C) Stratum spinosum
- D) Stratum basale

True or false :

- The reticular layer of the dermis is composed of dense regular connective tissue.
- The epidermis is highly vascularized and receives blood supply directly from capillaries.

Answers : C B C B B D C C F F

Physiology



Q1. If the sodium-potassium pump were inhibited, which of the following would be expected?

- A) A rapid increase in intracellular sodium levels
- B) A sustained depolarization of the membrane
- C) A decrease in intracellular potassium levels
- D) All of the above

Q2. The action potential threshold is typically reached when :

- A) The graded potential is below the resting membrane potential
- B) Na^+ influx exceeds K^+ efflux due to voltage-gated Na^+ channel activation
- C) K^+ channels open before Na^+ channels
- D) The Na^+/K^+ pump stops working

Q3. The inactivation of voltage-gated Na^+ channels is primarily responsible for:

- A) The absolute refractory period
- B) The relative refractory period
- C) The depolarization phase
- D) The threshold potential

Q4. Which ion plays the largest role in determining the magnitude of the action potential peak?

- A) Na^+
- B) K^+
- C) Cl^-
- D) Ca^{++}

Q5 .In a neuron at rest, the electrochemical gradient for Na⁺ is directed:

- A) Outward
- B) Inward
- C) Equally in both directions
- D) Against its concentration gradient

Q6.All of the following statements about the absolute refractory period are correct except:

- A) It prevents action potentials from summing
- B) It ensures unidirectional propagation of the action potential
- C) It occurs because Na⁺ channels are inactivated
- D) It occurs because K⁺ channels are still open

Q7. During the relative refractory period, a stronger stimulus is required to generate an action potential because:

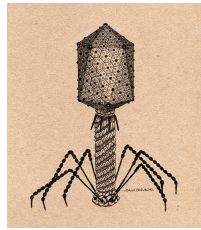
- A) Na⁺ channels are still inactivated
- B) K⁺ channels remain open, causing hyperpolarization
- C) The threshold has been permanently increased
- D) The Na⁺/K⁺ ATPase pump is inactive

Q8.If extracellular potassium concentration increases significantly, what is the most likely effect on the resting membrane potential?

- A) The resting membrane potential becomes more negative (hyperpolarization)
- B) The resting membrane potential becomes less negative (depolarization)
- C) The neuron becomes more resistant to depolarization
- D) No change in resting membrane potential

Answers : D B A A B D B B

Microbiology



Q1. Which of the following contributes to the pathogenesis of scalded skin syndrome?

- A) Coagulase enzyme
- B) Exfoliative toxins
- C) Lipopolysaccharides
- D) Streptolysin O

Q2. Why do sebaceous gland secretions help prevent bacterial growth?

- A) They create a basic pH that is hostile to bacteria
- B) They contain high concentrations of sodium chloride
- C) They release fatty acids that inhibit bacterial growth
- D) They directly degrade bacterial DNA

Q3. Which skin lesion is described as a flat, discolored area?

- A) Papule
- B) Macule
- C) Ulcer
- D) Pustule

Q4. What is the main distinguishing feature between petechiae and purpura?

- A) Petechiae are larger than purpura
- B) Petechiae result from extensive bleeding, whereas purpura does not
- C) Petechiae are tiny spots from minor bleeding, while purpura are larger blotches
- D) Purpura always develops into ulcers

Q5. Which of the following correctly describes how normal skin flora prevent pathogen colonization?

- A) By producing toxins that damage the skin
- B) By reducing keratinocyte turnover
- C) By increasing the skin's permeability
- D) By blocking attachment of pathogenic microbes to the skin surface

Answers : B C B C D

Pharmacology



Q1. Which of the following statements about prostaglandins is incorrect?

- A) They regulate inflammation and pain
- B) They are synthesized from arachidonic acid
- C) Their inhibition is responsible for NSAID-induced gastric side effects
- D) They decrease gastric mucus production

Q2. A 65-year-old man with a history of myocardial infarction is advised to take aspirin daily. What is the primary reason for this recommendation?

- A) Inhibition of thromboxane, reducing platelet aggregation
- B) Selective inhibition of COX-2, reducing inflammation
- C) Increased prostacyclin production, preventing thrombosis
- D) Enhancement of vasodilation, lowering blood pressure

Q3. A patient with asthma takes aspirin and suddenly experiences wheezing and shortness of breath. What is the most likely explanation for this reaction?

- A) Increased leukotriene synthesis due to COX inhibition
- B) Direct stimulation of histamine release by aspirin
- C) Increased production of prostaglandins in the lungs
- D) Bronchodilation caused by aspirin metabolites

Q4. Why are COX-2 selective inhibitors not completely free of side effects?

- A) They still inhibit gastric prostaglandins
- B) They increase thrombotic risk due to unopposed thromboxane activity
- C) They do not inhibit inflammation effectively
- D) They reduce kidney function more than nonselective NSAIDs

Q5. Which of the following is a unique characteristic of aspirin among NSAIDs?

- A) It reversibly inhibits COX enzymes
- B) It irreversibly inhibits COX enzymes
- C) It has no effect on platelet function
- D) It is primarily metabolized by the kidneys

Q6. Which of the following is correct regarding the role of interleukin-1 (IL-1) in fever?

- A) IL-1 reduces prostaglandin synthesis, decreasing fever
- B) IL-1 stimulates COX enzymes to increase prostaglandin production
- C) IL-1 directly lowers the body's temperature set point
- D) IL-1 is inhibited by NSAIDs to reduce fever

Q7. A 55-year-old patient with a history of hypertension is prescribed ibuprofen for joint pain. Which of the following is a potential adverse effect of chronic NSAID use in this patient?

- A) Increased sodium and water retention, leading to hypertension
- B) Increased platelet aggregation, reducing clotting risk
- C) Decreased gastric acid secretion, reducing ulcer risk
- D) Direct inhibition of renin, lowering blood pressure

Q8. Which of the following strategies is most appropriate to prevent NSAID-induced peptic ulcers?

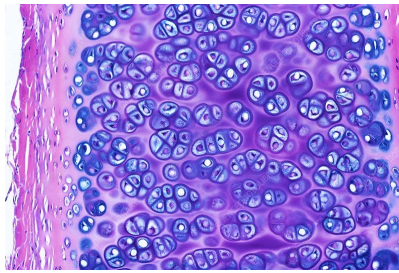
- A) Take NSAIDs on an empty stomach
- B) Use NSAIDs with histamine blockers
- C) Combine NSAIDs with a proton pump inhibitor
- D) Increase the NSAID dose but decrease frequency

Q9. Which of the following explains the analgesic effect of NSAIDs?

- A) They decrease endorphin release
- B) They block the release of histamine from mast cells
- C) They reduce prostaglandin-mediated nerve sensitization
- D) They enhance serotonin release

Answers : D A A B B B A C C

Pathology



Q1. Which metabolic disorder is characterized by decreased bone mass and an increased risk of fractures?

- A) Osteomalacia
- B) Osteopetrosis
- C) Osteoporosis
- D) Rickets

Q2. Which of the following best describes woven bone?

- A) Found only in adults
- B) Has a highly organized structure
- C) Seen in fractures and early development
- D) Contains only osteocytes

Q3. The most common cause of secondary osteoporosis is:

- A) Aging
- B) Hyperthyroidism
- C) Vitamin C deficiency
- D) Hypoglycemia

Q4. A feature of osteogenesis imperfecta is:

- A) Thickened bones
- B) Blue sclera
- C) Decreased osteoblast activity
- D) Increased osteoclast function

Q5. Achondroplasia is caused by a mutation in which gene?

- A) COL1A1
- B) FGFR3
- C) PTH
- D) RANKL

Q6. Osteoclasts originate from:

- A) Macrophages
- B) Mesenchymal stem cells
- C) Osteoblasts
- D) Fibroblasts

Q7. Osteoblasts are responsible for:

- A) Bone resorption
- B) Blood cell production
- C) Bone mineralization only
- D) Bone formation

Q8. Which disorder is the most common lethal form of dwarfism?

- A) Achondroplasia
- B) Osteopetrosis
- C) Thanatophoric dysplasia
- D) Osteogenesis imperfecta

Q9. Primary osteoporosis is most commonly associated with:

- A) Aging and menopause
- B) Hyperthyroidism
- C) Chronic steroid use
- D) Malnutrition

Answers : C C B B B A D C A