

QUIZ TIME

oral physiology

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Lec: 16



1. Which bone cell type is primarily responsible for initiating osteoclastic activity through secretion of regulatory factors?

- A. Osteocytes
- B. Osteoblasts
- C. Osteoclasts
- D. Osteoprogenitor cells
- E. Fibroblasts

Correct Answer: B. Osteoblasts

2. The radiographic radiolucency of woven bone compared to lamellar bone is mainly due to which feature?

- A. High mineral content
- B. Reduced collagen fiber content
- C. Decreased inorganic component
- D. Absence of osteocytes
- E. Highly organized lamellae

Correct Answer: C. Decreased inorganic component

3. Which incremental line indicates a pause in osteoblastic activity?

- A. Faint line
- B. Reversal line
- C. Resting line
- D. Appositional line
- E. Growth arrest line

Correct Answer: C. Resting line

4. Bundle bone is characterized by which of the following arrangements of collagen fibers?

- A. Random orientation
- B. Concentric lamellae
- C. Perpendicular to Sharpey's fibers
- D. Parallel to Sharpey's fibers
- E. Interwoven mesh-like

Correct Answer: C. Perpendicular to Sharpey's fibers

5. Which enzyme is associated with osteoclast-mediated bone resorption?

- A. Alkaline phosphatase
- B. Elastase
- C. Acid phosphatase
- D. Lipase
- E. Collagenase only

Correct Answer: C. Acid phosphatase

6. Woven bone appears in all the following conditions EXCEPT:

- A. Embryonic (fetal) bones
- B. Bone callus after fracture
- C. Healing extraction socket
- D. Mature cortical bone
- E. Emergency bone formation

Correct Answer: D. Mature cortical bone

7. Which feature of lamellar bone differentiates it most clearly from woven bone?

- A. Higher proteoglycan content
- B. Irregular arrangement of osteocytes
- C. Organized parallel or concentric collagen fibers
- D. Greater radiolucency on X-ray
- E. Increased organic matrix relative to inorganic

Correct Answer: C. Organized parallel or concentric collagen fibers

8. Which phenomenon is represented by scalloped blue lines in decalcified bone histology?

- A. Primary bone deposition
- B. Osteoblastic resting periods
- C. Post-osteoclastic activity
- D. Embryonic bone formation
- E. Mineralization fronts

Correct Answer: C. Post-osteoclastic activity

9. Failure of woven bone formation after extraction most directly leads to which clinical condition?

- A. Periodontitis
- B. Dry socket
- C. Osteonecrosis
- D. Cyst formation
- E. Cementoma

Correct Answer: B. Dry socket

10. Interdental septa are defined as the bone separating:

- A. Two roots of the same tooth
- B. The cortical plate from the spongiosa
- C. Adjacent teeth
- D. Lamellar and woven bone zones
- E. PDL from bundle bone

Correct Answer: C. Adjacent teeth