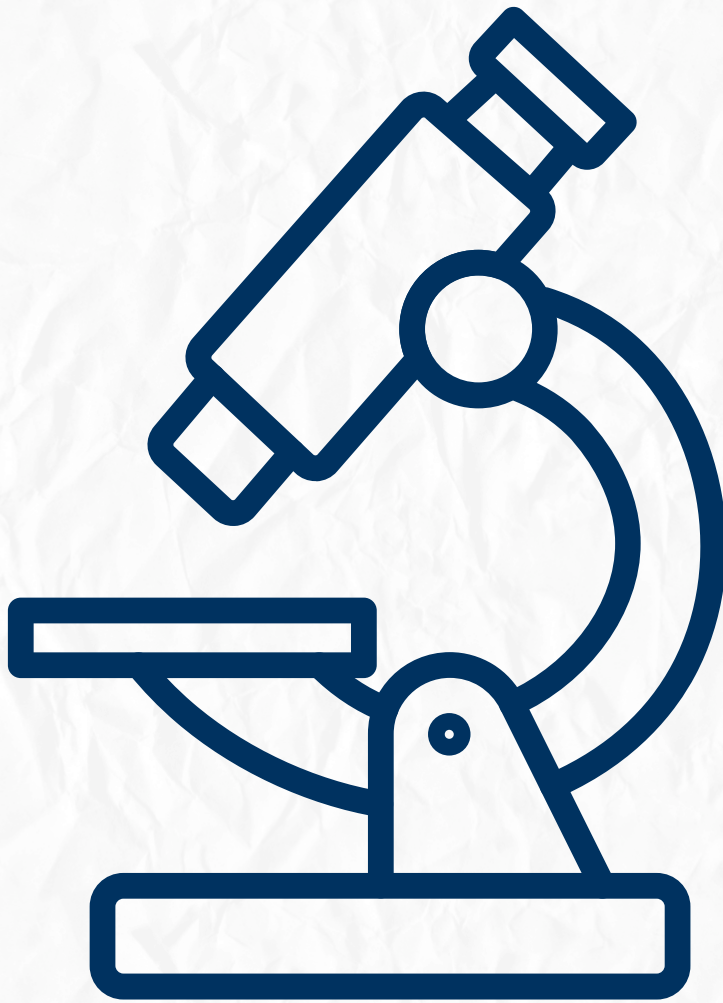


Oral Histology

Quiz time



PDL

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Q1: A patient received a sudden blow (trauma) to the lower jaw during a sports activity. Immediately, the mouth opened involuntarily. Which nerve endings in the PDL were primarily responsible for this protective reflex?

- A) Free nerve endings
- B) Meissner corpuscles
- C) Mechanoreceptors
- D) Pacinian corpuscles

.Answer:- C

Q2: During a histological examination of the PDL, you identify multinucleated giant cells located within depressions called "Howship's Lacunae" on the tooth surface. These cells are most likely:

- A) Osteoclasts resorbing alveolar bone.
- B) Odontoclasts resorbing dentin and cementum.
- C) Fibroblasts degrading old collagen.
- D) Cementoblasts forming new cementicles.

Answer:- B

Q3: Which group of PDL principal fibers is the most numerous and is specifically designed to resist the majority of masticatory (chewing) forces?

- A) Alveolar crest group
- B) Horizontal group
- C) Oblique group
- D) Apical group

Answer;- C

Q4: Regarding the vascularity of the Periodontal Ligament, which source provides the "Main" blood supply to the ligament space?

- A) Branches from the gingival vessels.
- B) Branches from the apical vessels supplying the pulp.
- C) Horizontal branches from the intra-alveolar vessels (cribriform plate).
- D) Diffusion from the interstitial fluid only.

. Answer:- C

Q5: A tooth has been out of function for a long time (non-functioning tooth). What is the expected change in the thickness of its Periodontal Ligament?

- A) Thickness increases to provide better support.
- B) Thickness remains constant at 0.38 mm.
- C) Thickness decreases.
- D) The PDL disappears and is replaced by bone.

Answer:- C

Q6: "Sharpey's Fibers" are defined in the PDL as:

- A) The free collagen fibers circulating in the ground substance.
- B) The part of collagen fibers embedded within cementum and alveolar bone.
- C) Specialized elastic fibers that resist rotation.
- D) The fibrils that make up the oxytalan group.

Answer:- B

Q7: Histologically, what is the origin of the "Epithelial Rests of Malassez" found within the connective tissue of the PDL?

- A) Ectomesenchymal cells of the dental sac.
- B) Remnants of the epithelial root sheath of Hertwig.
- C) Transformation of unipotent stem cells.
- D) Migration of cells from the gingival epithelium.

Answer:- B

Q8: During tooth movement, a specific cell type must undergo mitosis to produce two daughter cells—one to remain as a stem cell and the other to differentiate into a specialized cell (like an osteoblast). This description refers to:

- A) Fibrocytes
- B) Undifferentiated Mesenchymal Cells (UMCs)
- C) Osteocytes
- D) Macrophages

Answer:- B

Q9: Which fiber group specifically "fans out" from the inter-septal bone to the furcation area of a multi-rooted tooth?

- A) Apical group
- B) Alveolar crest group
- C) Inter-radicular group
- D) Horizontal group

Answer:- C

Q10: You notice small, round calcified nodules free within the PDL space near the root apex. These are likely "Cementicles." What is a common cause for their formation according to the lecture?

- A) Excessive Vitamin D intake.
- B) Calcification of epithelial rests of Malassez.
- C) Over-activity of the Trigeminal nerve.
- D) High masticatory forces on the alveolar crest.

Answer:- B