## **Chapter 02: Oral Cavity and Pharynx**

## Fehrenbach: Illustrated Dental Embryology, Histology, and Anatomy, 5th Edition

## **MULTIPLE CHOICE**

- 1. Which of the following oral landmarks may be noted on the soft palate?
  - a. Incisive papilla
  - b. Palatine rugae
  - c. Median palatine raphe
  - d. Uvula

ANS: D

A midline muscular structure, the uvula of the palate, hangs down from the posterior margin of the soft palate. The incisive papilla is a small bulge of tissue at the most anterior part of the hard palate. The median palatine raphe is a midline ridge of tissue on the hard palate. The palatine rugae are firm, irregular ridges of tissue on the hard palate.

DIF: Recall REF: Chapter 2, Palate, Page 15 OBJ: 2

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 2. Which of the following oral landmarks separates the base from the body of the tongue?
  - a. Sublingual fold
  - b. Lingual tonsil
  - c. Plica fimbriatae
  - d. Sulcus terminalis

ANS: D

Posteriorly on the dorsal surface of the tongue is an inverted V-shaped groove, the sulcus terminalis; it separates the base from the body of the tongue, demarcating a line of fusion of tissue during the tongue's development. A ridge of tissue on each side of the floor of the mouth, the sublingual fold, joins in a V-shaped configuration extending from the lingual frenum to the base of the tongue; it contains openings of the sublingual duct from the sublingual salivary gland. Even farther posteriorly on the dorsal surface of the base of the tongue is an irregular mass of tissue, the lingual tonsil. Lateral to each deep lingual vein on the ventral surface of the tongue is the plica fimbriata (plural, plicae fimbriatae) with fringelike projections.

DIF: Recall REF: Chapter 2, Tongue, Page 15 OBJ: 2

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 3. Which of the following statements concerning Fordyce spots is *correct*?
  - a. Composed of salivary gland tissue
  - b. Located on attached gingiva
  - c. Composed of sebum from sebaceous tissue
  - d. Indicate disease state in tissue

ANS: C

On the surface of the labial and buccal mucosa is a common variation, Fordyce spots. These are visible as small, yellowish elevations on the oral mucosa. They represent deeper deposits of sebum from trapped or misplaced sebaceous gland tissue, usually associated with hair follicles.

DIF: Comprehension

REF: Chapter 2, Clinical Considerations with Oral Mucosa, Page 10 OBJ: 1 TOP: CDA, GC, I.B.6 | NBDHE, Physiology

- 4. The line of demarcation between the attached gingiva and the alveolar mucosa is the
  - a. mucogingival junction.
  - b. interdental gingiva.
  - c. mucobuccal fold.
  - d. marginal gingiva.

ANS: A

The line of demarcation between the firmer and pinker attached gingiva and the movable and redder alveolar mucosa is the scallop-shaped mucogingival junction. The interdental gingiva is the gingival tissue between adjacent teeth adjoining attached gingiva. Deep within each vestibule is the vestibular fornix, where the pink labial mucosa or buccal mucosa meets the redder alveolar mucosa at the mucobuccal fold. At the gingival margin of each tooth is the marginal gingiva, which forms a cuff above the neck of the tooth.

DIF: Recall REF: Chapter 2, Gingival Tissue, Page 13

OBJ: 2

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 5. The root of the mature and fully erupted tooth is composed of
  - a. enamel, dentin, and pulp.
  - b. dentin and pulp.
  - c. dentin, pulp, and cementum.
  - d. pulp, cementum, and periodontal ligament.

ANS: C

The crown of the tooth is composed of the extremely hard outer enamel layer and the moderately hard inner dentinal layer overlying the pulp of the tooth. The pulp is the soft innermost layer in the tooth. The moderately hard dentin continues to cover the soft tissue of the pulp of the tooth in the root(s), but the outermost layer of the root(s) is composed of cementum. The bonelike cementum is the part of the tooth that attaches to the periodontal ligament, which then attaches to the alveolus of bone, holding the tooth in its socket.

DIF: Recall REF: Chapter 2, Jaws, Alveolar Processes, and Teeth, Page 10

OBJ: 2

TOP: CDA, GC, I.B.7 | NBDHE, Anatomic Sciences (Anatomy, Dental anatomy, Root anatomy)

- 6. Which of the following lingual papillae are located on the lateral surface of the tongue?
  - a. Circumvallate papillae
  - b. Filiform papillae
  - c. Fungiform papillae
  - d. Foliate papillae

ANS: D

Certain surfaces of the tongue have small, elevated structures of specialized mucosa, the lingual papillae, some of which are associated with taste buds. The side or lateral surface of the tongue has vertical ridges, the foliate lingual papillae. The dorsal surface has the filiform, fungiform, and circumvallate.

DIF: Recall REF: Chapter 2, Tongue, Page 15 OBJ: 2

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 7. Which of the following folds or grooves of tissue are located on the floor of the mouth?
  - a. Plica fimbriatae
  - b. Labiomental groove
  - c. Sublingual folds
  - d. Labial commissure

ANS: C

A ridge of tissue on each side of the floor of the mouth, the sublingual fold, joins in a V-shaped configuration extending from the lingual frenum to the base of the tongue. The sublingual folds contain openings of the sublingual duct from the sublingual salivary gland. The labiomental groove is the natural indentation in the chin, just inferior to the lips, that takes its form from the muscles and bones lying beneath the skin. The upper and lower lips meet at each corner of the mouth at the labial commissure.

DIF: Recall REF: Chapter 2, Floor of Mouth, Page 17

OBJ: 2

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 8. Which of the following structures is *never* visible in any part on a dental intraoral examination?
  - a. Oropharynx
  - b. Laryngopharynx
  - c. Soft palate
  - d. Nasopharynx

ANS: B

The laryngopharynx is the more inferior division of the pharynx, close to the laryngeal opening. To examine the more extensive parts of the nasopharynx as well as the laryngopharynx or even the oropharynx in some patients, special diagnostic tools are needed.

DIF: Recall REF: Chapter 2, Pharyngeal Divisions, Page 18

OBJ: 4

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 9. A midline depression on the dorsal surface of the tongue is called the
  - a. median palatine raphe.
  - b. sulcus terminalis.
  - c. labiomental groove.
  - d. median lingual sulcus.

ANS: D

The top, or dorsal surface of the tongue, has a midline depression, the median lingual sulcus, corresponding to the position of a midline fibrous structure deeper in the tongue and fusion tissue area. A midline ridge of tissue on the hard palate is the median palatine raphe, which overlies the bony fusion of the palate. The labiomental groove is the natural indentation in the chin, just inferior to the lips. Posteriorly on the dorsal surface of the tongue, and more difficult to see clinically, is an inverted V-shaped groove, the sulcus terminalis.

DIF: Recall REF: Chapter 2, Tongue, Page 15 OBJ: 2

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 10. Adult teeth, or \_\_\_\_\_ teeth, also include all the same teeth as the primary teeth as well as premolars.
  - a. deciduous
  - b. permanent
  - c. baby
  - d. primary

ANS: B

Adult teeth, or permanent teeth, also include all the same teeth as the primary teeth, as well as premolars. The tooth types in both arches of the teeth of children, or primary teeth, include incisors, canines, and molars. Other terms for the primary teeth are the deciduous or "baby" teeth.

DIF: Recall REF: Chapter 2, Dental Arches, Page 10 OBJ: 1

TOP: CDA, GC, I.B.7 | NBDHE, Anatomic Sciences (Anatomy, Dental anatomy, General anatomy)

- 11. Which of the following orofacial structures contains the alveolus of a tooth?
  - a. Vestibular fornix
  - b. Alveolar process
  - c. Zygomatic arch
  - d. Retromolar pad

ANS: B

The alveolar process, or alveolar bone, is the bony extension for both the maxilla and mandible that contains each tooth socket of the teeth or alveolus (plural, alveoli). The alveolar process, or alveolar bone, is the bony extension for both the maxilla and mandible that contains each tooth socket of the teeth or alveolus (plural, alveoli). Farther laterally is the zygomatic region, which overlies the bony support for the cheek, the zygomatic arch. On the lower jaw is a dense pad of tissue located just distal to the last tooth of the mandibular arch, the retromolar pad.

DIF: Recall REF: Chapter 2, Jaws, Alveolar Processes, Page 10

OBJ: 2

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Dental anatomy, General anatomy)

- 12. The oral tissue closest to the inner cheek is *best* described as
  - a. labial.
  - b. facial.
  - c. buccal.
  - d. palatal.

ANS: C

The facial structures close to the inner cheek are buccal. The structures closest to the tongue are lingual. The lingual structures closest to the palate are palatal. The structures closest to the facial surface are facial. The facial structures closest to the lips are labial.

DIF: Comprehension REF: Chapter 2, Oral Cavity Divisions, Page 9

OBJ: 1

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 13. The outermost layer of the root is composed of
  - a. cementum.
  - b. pulp.
  - c. dentin.
  - d. enamel.

ANS: A

The crown of the tooth is composed of the extremely hard outer enamel layer and the moderately hard inner dentinal layer overlying the pulp of the tooth. The pulp is the soft innermost layer in the tooth. The moderately hard dentin continues to cover the soft tissue of the pulp of the tooth in the root(s), but the outermost layer of the root(s) is composed of cementum. The bonelike cementum is the part of the tooth that attaches to the periodontal ligament.

DIF: Recall REF: Chapter 2, Jaws, Alveolar Processes, and Teeth, Page 10

OBJ: 2

TOP: CDA, GC, I.B.7 | NBDHE, Anatomic Sciences (Anatomy, Dental anatomy, Root anatomy)

- 14. Just distal to the last tooth of the maxillary arch is a tissue-covered elevation of the bone called the
  - a. maxillary arch.
  - b. maxillary tuberosity.
  - c. canine eminence.
  - d. retromolar pad.

ANS: B

Just distal to the last tooth of the maxillary arch is a tissue-covered elevation of the bone, the maxillary tuberosity. Similarly, on the lower jaw is a dense pad of tissue located just distal to the last tooth of the mandibular arch, the retromolar pad. The alveolar processes with the teeth in the alveoli are also called dental arches, the maxillary arch and mandibular arch. The facial part of the alveolus of each canine, the vertically placed canine eminence, is especially prominent on each side of the maxilla.

DIF: Recall REF: Chapter 2, Dental Arches, Page 10 OBJ: 2

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 15. On which of the following orofacial tissue is the linea alba located?
  - a. Attached gingiva
  - b. Marginal gingiva
  - c. Labial mucosa
  - d. Buccal mucosa

ANS: D

A variation that can be noted on the buccal mucosa is the linea alba. This is a white ridge of hyperkeratinization that extends horizontally at the level where the maxillary and mandibular teeth come together and occlude; similar ridges of white tissue can sometimes be present on the tongue perimeter.

DIF: Recall REF: Chapter 2, Clinical Considerations with Oral Mucosa, Page 10

OBJ: 2

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 16. The structures closest to the lips are termed \_\_\_\_\_ or labial.
  - a. lingual
  - b. facial
  - c. buccal
  - d. palatal

ANS: B

The structures closest to the facial surface are facial. The facial structures closest to the lips are labial. The facial structures close to the inner cheek are buccal. The structures closest to the tongue are lingual. The lingual structures closest to the palate are palatal.

DIF: Recall REF: Chapter 2, Oral Cavity Divisions, Page 9

OBJ: 1

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 17. The pink labial mucosa or buccal mucosa meets the redder \_\_\_\_\_ at the mucobuccal fold.
  - a. marginal gingiva
  - b. attached gingiva
  - c. alveolar mucosa N
  - d. interdental papilla

ANS: C

Deep within each vestibule is the vestibular fornix, where the pink labial mucosa or buccal mucosa meets the redder alveolar mucosa at the mucobuccal fold. The gingival tissue that tightly adheres to the alveolar process surrounding the roots of the teeth is the attached gingiva. At the gingival margin of each tooth is the marginal gingiva, which forms a cuff above the neck of the tooth. The interdental gingiva is the gingival tissue between adjacent teeth adjoining attached gingiva, with each individual extension being an interdental papilla.

DIF: Recall REF: Chapter 2, Oral Vestibules, Page 10

OBJ: 2

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 18. The \_\_\_\_\_ is a white ridge of raised callused tissue that extends horizontally at the level where the maxillary and mandibular teeth come together and occlude.
  - a. linea alba
  - b. buccal fat pad
  - c. parotid papilla
  - d. labial frenum

ANS: A

DIF: Recall

d. linea alba

The linea alba is a white ridge of hyperkeratinization that extends horizontally at the level where the maxillary and mandibular teeth come together and occlude; similar ridges of white tissue can sometimes be present on the tongue perimeter. The buccal mucosa covers a dense pad of underlying fat tissue at the posterior part of each vestibule, the buccal fat pad. On the inner part of the buccal mucosa, just opposite the maxillary second molar, is a small elevation of tissue is the parotid papilla. The labial frenum (plural, frena) is a fold of tissue located at the midline between the labial mucosa and the alveolar mucosa on the upper and lower dental arches.

REF: Chapter 2, Clinical Considerations with Oral Mucosa Features, Page 10

	OBJ: 1 TOP: CDA, GC, I.B.6   NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)
19.	Each body of the maxilla is superior to the teeth and contains the sinuses.  a. sphenoidal b. ethmoidal c. frontal d. maxillary
	ANS: D Each body of the maxilla, a facial bone, is superior to the teeth and contains the maxillary sinus. The other sinuses listed—the sphenoidal, ethmoidal, and frontal—are contained within the cranial bones.
	DIF: Recall REF: Chapter 2, Jaws, Alveolar Processes, and Teeth, Page 10 OBJ: 1 TOP: CDA, GC, I.B   NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)
20.	The facial part of the alveolus of the, the vertically placed eminence, is especially prominent on the maxilla.  a. premolar  b. canine  c. molar  d. incisor
	ANS: B The facial part of the alveolus of each canine, the vertically placed canine eminence, is especially prominent on each side of the maxilla. The alveolar process, or alveolar bone, is the bony extension for both the maxilla and mandible that contains each tooth socket of the teeth or alveolus (plural, alveoli).
	DIF: Recall REF: Chapter 2, Jaws, Alveolar Processes, and Teeth, Page 10 OBJ: 2 TOP: CDA, GC, I.B.6   NBDHE, Anatomic Sciences (Anatomy, Dental anatomy, General anatomy)
21.	Surrounding the teeth in the alveoli and covering the alveolar processes is the, which is composed of a firm pink tissue.  a. gingiva  b. minor salivary glands  c. Fordyce spots

ANS: A

Surrounding the maxillary and mandibular teeth in the alveoli and covering the alveolar processes are the soft tissue gums, or gingiva (or more accurately, but not commonly, by the dental community, gingivae), composed of a firm pink mucosa. Minor salivary glands are deep within the oral mucosa throughout the oral cavity. Fordyce spots are visible as small, yellowish elevations on the oral mucosa; they represent deeper deposits of sebum from trapped or misplaced sebaceous gland tissue, usually associated with hair follicles. The linea alba is a white ridge of hyperkeratinization that extends horizontally at the level where the maxillary and mandibular teeth come together and occlude; similar ridges of white tissue can sometimes be present on the tongue perimeter.

DIF: Recall REF: Chapter 2, Gingival Tissue, Page 13

OBJ: 1

TOP: CDA, GC, I.B.7 | NBDHE, Anatomic Sciences (Anatomy, Dental anatomy, General anatomy)

- 22. What is the midline ridge of tissue on the hard palate?
  - a. Incisive papilla
  - b. Palatine rugae
  - c. Median palatine raphe
  - d. Uvula

ANS: C

The median palatine raphe is a midline ridge of tissue on the hard palate. The incisive papilla is a small bulge of tissue at the most anterior part of the hard palate. The palatine rugae are firm, irregular ridges of tissue on the hard palate. A midline muscular structure, the uvula of the palate, hangs down from the posterior margin of the soft palate.

DIF: Recall REF: Chapter 2, Palate, Page 15 OBJ: 1

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 23. What are the small, elevated structures of specialized mucosa located on the dorsal surfaces of the tongue, some of which are associated with taste buds?
  - a. Lingual papilla
  - b. Sulcus terminalis
  - c. Parotid papilla
  - d. Foramen cecum

ANS: A

The dorsal surface of the tongue has small, elevated structures of specialized mucosa, the lingual papillae, some of which are associated with taste buds. Posteriorly on the dorsal surface of the tongue is an inverted V-shaped groove, the sulcus terminalis. Where the sulcus terminalis points backward toward the throat is a small, pitlike depression, the foramen cecum. On the inner part of the buccal mucosa, just opposite the maxillary second molar, is a small elevation of tissue is the parotid papilla.

DIF: Recall REF: Chapter 2, Tongue, Page 15 OBJ: 2

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 24. What is the small bulge of tissue at the most anterior part of the hard palate?
  - a. Incisive papilla
  - b. Palatine rugae

- c. Median palatine raphe
- d. Uvula

ANS: A

The incisive papilla is a small bulge of tissue at the most anterior part of the hard palate. The palatine rugae are firm, irregular ridges of tissue on the hard palate. The median palatine raphe is a midline ridge of tissue on the hard palate. A midline muscular structure, the uvula of the palate, hangs down from the posterior margin of the soft palate.

DIF: Recall REF: Chapter 2, Palate, Page 15 OBJ: 1

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)

- 25. Which of the following structures protects the opening of the parotid duct of its salivary gland?
  - a. Labial frenum
  - b. Parotid papilla
  - c. Incisive papilla
  - d. Linea alba

ANS: B

On the inner part of the buccal mucosa, just opposite the maxillary second molar, is a small elevation of tissue is the parotid papilla. The parotid papilla protects the opening of the parotid duct of the parotid salivary gland. The labial frenum (plural, frena) is a fold of tissue located at the midline between the labial mucosa and the alveolar mucosa on the upper and lower dental arches. A small bulge of tissue at the most anterior part of the hard palate, lingual to the anterior teeth, is the incisive papilla. The linea alba is a white ridge of hyperkeratinization (or calloused tissue) that extends horizontally at the level where the maxillary and mandibular teeth come together and occlude.

DIF: Recall REF: Chapter 2, Oral Vestibules, Page 10

OBJ: 1

TOP: CDA, GC, I.B.6 | NBDHE, Anatomic Sciences (Anatomy, Head and neck anatomy)