

Chapter 02: Inflammation and Repair

Test Bank

MULTIPLE CHOICE

1. A decrease in the size and function of a cell, a tissue, an organ, or the whole body is referred to as:
- A. emigration.
 - B. atrophy.
 - C. hyperplasia.
 - D. phagocytosis.

ANS: B

	Feedback
A	Emigration is the passage of white blood cells through the endothelium and wall of the microcirculation into the injured tissue.
B	Correct! <i>Atrophy</i> is defined as a decrease in the size and function of a cell, a tissue, an organ, or the whole body.
C	Hyperplasia is the enlargement of a tissue or organ resulting from an increase in the number of normal cells.
D	Phagocytosis is the process of ingestion and digestion of particulate material by cells.

REF: Reactive Tissue Responses, pages 43-44

OBJ: 8

2. The first response of the body to injury is:
- A. anaphylaxis.
 - B. erythema.
 - C. fever.
 - D. inflammation.

ANS: D

	Feedback
A	Anaphylaxis is a severe type of hypersensitivity or allergic reaction in which there is an exaggerated immunologic reaction resulting from the release of vasoactive substances such as histamine.
B	Erythema is redness of the skin or mucosa and is a local sign of inflammation.
C	Fever is the elevation of the normal body temperature and is a systemic sign of inflammation.
D	Correct! The inflammatory response is the first reaction to injury, and it involves a series of microscopic events.

REF: Inflammation, page 34

OBJ: 1

3. Which type of inflammation occurs when the injury is minimal and brief and its source is removed from the tissue?
- A. Acute

- B. Chronic
- C. Local
- D. Systemic

ANS: A

	Feedback
A	Correct! Acute inflammation occurs when the injury is minimal and brief.
B	Chronic inflammation occurs when the inflammatory response lasts for longer periods, even indefinitely.
C	<i>Local</i> is a term used to describe a specific area of inflammation.
D	Systemic factors such as fever, leukocytosis, and lymphadenopathy occur when the injury is extensive.

REF: Inflammation, page 34

OBJ: 2

4. Which type of cell is the first to arrive at the site of injury and is the primary cell type involved in acute inflammation?
- A. Macrophage
 - B. Neutrophil
 - C. Plasma cell
 - D. Mast cell

ANS: B

	Feedback
A	The macrophage is the second cell type to participate in the inflammatory response.
B	Correct! The neutrophil is the first cell to arrive at the site of injury and is the primary cell type involved in acute inflammation.
C	The plasma cell is involved in chronic inflammation.
D	The mast cell participates in both the inflammatory and immune responses.

REF: White Blood Cells in the Inflammatory Response, page 38

OBJ: 4

5. Which one of the following is *not* a classic local sign of inflammation?
- A. Redness
 - B. Swelling
 - C. Leukocytosis
 - D. Loss of normal tissue function

ANS: C

	Feedback
A	Redness is a local clinical change at the site of injury and is one of the classic local signs of inflammation.
B	Swelling is a local clinical change observed at the site of injury and is one of the classic local signs of inflammation.
C	Correct! Leukocytosis is an increase in the number of white blood cells and is a sign of systemic inflammation.

D	Loss of normal tissue function at the site of injury is a classic local sign of inflammation.
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REF: Leukocytosis, page 41

OBJ: 5

6. Healing of an injury in which there is little loss of tissue, such as a surgical incision, is referred to as healing by:
- tertiary intention.
 - keloid formation.
 - secondary intention.
 - primary intention.

ANS: D

Feedback	
A	Healing by tertiary intention occurs when an infection develops at the site of a surgical incision that is healing by primary intention. Healing by secondary intention may ensue.
B	Keloid formation is excessive scar tissue development that can occur in healing by secondary intention when there is a significant loss of tissue.
C	Healing by secondary intention occurs when the injury involves significant loss of tissue and the edges of the injury cannot be joined during healing. A large clot forms, resulting in an increase in granulation tissue.
D	Correct! Healing by primary intention occurs when there is very little loss of tissue. The clean edges of the surgical incision are joined with sutures, and very little granulation tissue forms.

REF: Healing by Primary Intention, page 45

OBJ: 11

7. The wearing away of tooth structure during mastication is called:
- attrition.
 - erosion.
 - abrasion.
 - abfraction.

ANS: A

Feedback	
A	Correct! Attrition is defined as the wearing away of tooth structure during mastication.
B	Erosion is the loss of tooth structure from chemical action.
C	Abrasion is a pathologic wearing of tooth structure resulting from a repetitive mechanical habit.
D	Abfraction is the result of biomechanical forces on the teeth.

REF: Attrition, page 46

OBJ: 14

8. The loss of tooth structure seen in bulimia is caused by:
- anorexia.
 - erosion.

- C. attrition.
- D. bruxism.

ANS: B

	Feedback
A	Patients with anorexia nervosa do not vomit after eating.
B	Correct! Generalized erosion, especially on the lingual surfaces of maxillary anterior teeth, is caused by frequent vomiting in patients with bulimia.
C	Attrition is the wearing away of tooth structure during mastication.
D	Bruxism occurs when there is nonfunctional grinding or clenching of the teeth.

REF: Erosion, page 49

OBJ: 14

9. A patient comes to the office for an emergency visit. The patient complains of a toothache in the left mandibular posterior area. On clinical examination you notice a gray-to-white patch on the left posterior buccal mucosa. On questioning, the patient tells you that this area is also painful. After reviewing the patient's medical history, you question the patient regarding his recent use of:



- A. hydrogen peroxide.
- B. aspirin.
- C. antibiotics.
- D. mouthwash.

ANS: B

	Feedback
A	A chemical burn from the use of hydrogen peroxide would be more diffuse, probably bilateral, and not a white plaque.
B	Correct! This is a classic case of aspirin burn caused by the misuse of aspirin. The patient placed aspirin near the tooth that was aching; thus necrosis of the mucosa occurred, resulting in the painful white patch on the buccal mucosa.
C	Antibiotics would be taken systemically and most likely swallowed.
D	Commercial mouthwashes would not cause a localized lesion.

REF: Aspirin Burn, page 50

OBJ: 17

10. This white raised line observed on the buccal mucosa along the occlusal plane of the teeth is:



- A. cheek biting.
- B. linea alba.
- C. white sponge nevus.
- D. frictional keratosis.

ANS: B

	Feedback
A	Cheek biting is usually seen bilaterally as a diffuse area causing sloughing of the buccal mucosa near the occlusal plane.
B	Correct! Linea alba is a raised white line on the buccal mucosa along the occlusal plane; it is considered a variant of normal.
C	White sponge nevus is a genetic autosomal-dominant condition. Clinically, it is characterized by a white, soft, folding (<i>corrugation</i>) of the buccal mucosa. A thick layer of keratin produces the whitening effect.
D	Frictional keratosis is caused by a chronic rubbing or friction against the mucosa or alveolar ridge. Diagnosis is made by identifying the trauma causing the lesion and removing the cause.

REF: Linea Alba, page 54

OBJ: 17

11. Which one of the following describes white blood cells adhering to the walls of a blood vessel during inflammation?
- A. Margination
 - B. Pavementing
 - C. Leukocytosis
 - D. Emigration

ANS: B

	Feedback
A	Margination is a process during inflammation in which white blood cells move to the periphery of the blood vessel wall.
B	Correct! Pavementing is the adherence of white blood cells to the walls of a blood vessel during inflammation.
C	Leukocytosis is a temporary increase in the number of white blood cells circulating in blood.
D	Emigration is the passage of white blood cells through the endothelium and wall of the microcirculation into the injured tissue.

REF: Microscopic Events of Inflammation and Clinical Signs, page 35

OBJ: 1

12. Which one of the following is a systemic sign of inflammation?
- A. Redness
 - B. Pain
 - C. Loss of normal tissue function
 - D. Fever

ANS: D

	Feedback
A	Redness is a local sign of inflammation.
B	Pain is a local sign of inflammation caused by pressure on nerves by exudate formation.
C	Loss of normal tissue function is a local sign of inflammation associated with local swelling and pain.
D	Correct! Fever is a systemic sign of inflammation.

REF: Microscopic Events of Inflammation and Clinical Signs, Table 2-1, page 35

OBJ: 3

13. The enlargement of lymph nodes is called:
- A. atrophy.
 - B. lymphadenopathy.
 - C. hyperplasia.
 - D. leukocytosis.

ANS: B

	Feedback
A	Atrophy is a decrease in size and function of a cell, a tissue, an organ, or the whole body.
B	Correct! Lymphadenopathy occurs when lymph nodes become enlarged and palpable.
C	Hyperplasia is an enlargement of a tissue or an organ resulting from an increase in the number of normal cells.
D	Leukocytosis is a temporary increase in the number of white blood cells.

REF: Lymphadenopathy, page 41

OBJ: 1

14. The first microscopic event in the inflammatory response is:
- A. decreased blood flow.
 - B. constriction of the microvasculature.
 - C. phagocytosis.
 - D. dilation of microvasculature.

ANS: B

	Feedback
A	Decreased blood flow occurs after exudate formation.
B	Correct! After injury to the tissue, the first microscopic event is constriction of

	the microvasculature.
C	Phagocytosis occurs when the white blood cells remove foreign substances from the site by ingestion and digestion; these substances must be removed for the inflammation to resolve.
D	Dilation of the microvasculature is the second microcirculation event to occur after injury.

REF: Microscopic Events of Inflammation and Clinical Signs, page 35

OBJ: 4

15. Serous exudate is composed of:
- A. tissue debris and many white blood cells.
 - B. suppuration.
 - C. plasma fluids and proteins with a few white blood cells.
 - D. plasma fluids and red blood cells.

ANS: C

	Feedback
A	Purulent exudate contains tissue debris and many white blood cells.
B	Suppuration is the formation and discharge of pus, as seen in purulent exudate.
C	Correct! Serous exudate is composed of plasma fluids and proteins with a few white blood cells.
D	<i>Serous</i> describes the watery consistency of plasma. Red blood cells are not a component of serous fluid.

REF: Microscopic Events of Inflammation and Clinical Signs, pages 36-37

OBJ: 5

16. When formation of exudate is excessive, a drainage tract may develop through the injured tissue. This channel is often called:
- A. a fistula.
 - B. leukocytosis.
 - C. erythema.
 - D. emigration.

ANS: A

	Feedback
A	Correct! A fistula is the channel through which excessive exudate passes to drain to the outside.
B	Leukocytosis is a temporary increase in white blood cells.
C	Erythema is redness of the skin or mucosa.
D	Emigration occurs when white blood cells pass through the endothelium and wall of the microcirculation into the injured tissue.

REF: Microscopic Events of Inflammation and Clinical Signs, page 37

OBJ: 5

17. Neutrophils constitute how much of the entire white blood cell population?
- A. 5%

- B. 20%
- C. 65%
- D. 90%

ANS: C

Feedback	
A	There are significantly more than 5% of neutrophils in the entire white blood cell count.
B	There are significantly more than 20% of neutrophils in the entire white blood cell count.
C	Correct! Neutrophils make up 60% to 70% of all white blood cells.
D	There are fewer than 90% of neutrophils in the entire white blood cell count.

REF: Neutrophils, page 39

OBJ: 6

18. All of the following are true concerning the neutrophil *except* that the neutrophil is:
- A. the first cell at the site of injury.
 - B. the primary cell in acute inflammation.
 - C. the primary cell in chronic inflammation.
 - D. a phagocyte.

ANS: C

Feedback	
A	Neutrophils are the first cells at the site of injury.
B	Neutrophils are the primary cells in acute inflammation.
C	Correct! In chronic inflammation, the primary cells are macrophages, lymphocytes, and plasma cells.
D	The main function of the neutrophil is phagocytosis.

REF: White Blood Cells in the Inflammatory Response, page 38

OBJ: 6

19. Which system in the blood mediates inflammation by causing increased dilation of the blood vessels at the site of injury and increases the permeability of local blood vessels?
- A. Kinin system
 - B. Clotting system
 - C. Complement system
 - D. Lysosomal enzymes

ANS: A

Feedback	
A	Correct! The kinin system mediates inflammation by causing increased dilation of the blood vessels at the site of injury and increases the permeability of local blood vessels.
B	The clotting mechanism functions primarily in the clotting of blood.
C	The complement system involves the production of a sequential cascade of plasma proteins that function in inflammation and immunity.
D	Lysosomal enzymes are released from granules in the white blood cells; they act

	as chemotactic factors and can cause damage to connective tissues and the clot that has formed at the site of injury.
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REF: Kinin System, page 40

OBJ: 4

20. Which one of the following is a steroidal antiinflammatory drug?
- A. Aspirin
 - B. Prednisone
 - C. Ibuprofen
 - D. Motrin

ANS: B

	Feedback
A	Aspirin is a nonsteroidal antiinflammatory agent.
B	Correct! Prednisone is a steroidal antiinflammatory drug.
C	Ibuprofen is a nonsteroidal antiinflammatory agent.
D	Motrin is ibuprofen, a nonsteroidal antiinflammatory drug.

REF: Antiinflammatory Drugs, page 43

OBJ: 6

21. Which of the following is defined as an increase in the number of cells in a tissue or organ?
- A. Hypertrophy
 - B. Atrophy
 - C. Hyperplasia
 - D. Repair

ANS: C

	Feedback
A	Hypertrophy is an increase in the size of an organ or tissue but not in the number of cells.
B	Atrophy is a decrease in the size and function of a cell, a tissue, or an organ.
C	Correct! Hyperplasia is an increase in the number of cells in a tissue or organ.
D	Repair is the restoration of damaged or diseased tissue.

REF: Reactive Tissue Responses, page 43

OBJ: 1

22. Excessive scarring in skin is called:
- A. a keloid.
 - B. healing by primary intention.
 - C. a hematoma.
 - D. healing by tertiary intention.

ANS: A

	Feedback
A	Correct! A keloid occurs when there is excessive scarring in the skin.
B	In healing by primary intention, very little granulation tissue forms.
C	A hematoma occurs when there is hemorrhage into the tissue. This may impair healing.

D	Healing by tertiary intention occurs after the infection has been resolved and surgical tissue repair has been performed.
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REF: Healing by Secondary Intention, page 46

OBJ: 9

23. The first sign of attrition is:
- A. open contacts.
 - B. disappearance of mamelons on incisors.
 - C. temporomandibular joint dysfunction.
 - D. biomechanical forces on the teeth.

ANS: B

	Feedback
A	Open contacts are associated with erosion.
B	Correct! The first sign of attrition is the disappearance of mamelons on incisors.
C	Temporomandibular joint dysfunction problems are more likely associated with bruxism. Excessive attrition, muscle pain, and wear facets are present in bruxism.
D	Abfraction results from biomechanical forces on the teeth.

REF: Attrition, page 46

OBJ: 14

24. Which one of the following is *not* a cause of abrasion?
- A. Pipe placement by pipe smokers
 - B. Playing wind instruments
 - C. Holding needles or pins with the teeth
 - D. Frequent sucking on lemons

ANS: D

	Feedback
A	Abrasion can be caused by pipe placement by pipe smokers.
B	Abrasion may be caused by playing wind instruments.
C	Abrasion can be caused by needles and pins held between the teeth.
D	Correct! Erosion, not abrasion, can be caused by the frequent sucking of lemons.

REF: Erosion, pages 48-49

OBJ: 14

25. This type of erosion is classically associated with:



- A. anorexia nervosa.
- B. bulimia.
- C. sucking lemons.

D. abrasive toothpaste.

ANS: B

	Feedback
A	Anorexia nervosa is an eating disorder, but it is not associated with erosion because vomiting after eating is not a component of the disorder.
B	Correct! Bulimia is an eating disorder characterized by food binges followed by self-induced vomiting that causes erosion to the lingual aspects of the teeth.
C	Sucking lemons would cause erosion to the facial aspects of the teeth.
D	Abrasive toothpastes are more responsible for contributing to abrasion.

REF: Erosion, Figure 2-25, page 49 OBJ: 14

26. Aspirin burn on the oral mucosa:

- A. is caused by ingestion of too many aspirin tablets.
- B. is caused by placing the aspirin on the tooth with the toothache, causing the surrounding mucosa to become necrotic.
- C. is painless.
- D. requires a biopsy for diagnosis.

ANS: B

	Feedback
A	Aspirin burn is caused by a topical misuse of aspirin; it is not systemic.
B	Correct! Aspirin burn is caused when aspirin is placed on the tooth with the toothache, causing the surrounding mucosa to become necrotic.
C	Aspirin burn is very painful and slow to heal.
D	Aspirin burn is usually diagnosed by questioning the patient to reveal the cause of the lesion.

REF: Aspirin Burn, page 50 OBJ: 17

27. Electric burns in the oral area are usually seen in:

- A. electricians.
- B. infants and young children.
- C. the elderly.
- D. individuals involved in an electrical fire.

ANS: B

	Feedback
A	Electricians do not usually have electric burns in the oral area.
B	Correct! Electric burns in the oral area are most often seen in infants and young children who have bitten or chewed a live electrical cord.
C	The elderly do not usually have electric burns in the oral area.
D	Individuals in an electrical fire do not usually have electric burns in the oral area.

REF: Electric Burn, page 51 OBJ: 17

28. The diagnosis of a traumatic ulcer is usually based on:

- A. history of the lesion.
- B. scalpel biopsy.
- C. therapeutic procedures.
- D. laboratory tests.

ANS: A

	Feedback
A	Correct! Traumatic ulcers are usually diagnosed on the basis of the relationship of the history to the lesion.
B	Scalpel biopsy is not used in the diagnosis of traumatic ulcers. However, if the trauma persists and the ulcer lasts 14 days, a biopsy may be performed.
C	Therapeutic measures are not used to diagnose traumatic ulcers.
D	Laboratory tests are not used to diagnose traumatic ulcers.

REF: Traumatic Ulcer, page 53

OBJ: 17

29. The major cause of a mucocele is:
- A. a sialolith.
 - B. salivary duct obstruction.
 - C. trauma to a minor duct.
 - D. allergic reaction.

ANS: C

	Feedback
A	A sialolith is a salivary gland stone.
B	Dilated salivary gland ducts are believed to develop as a result of salivary duct obstruction.
C	Correct! The major cause of a mucocele is trauma to a minor duct. The mucous salivary gland secretion spills into the adjacent connective tissue.
D	A mucocele is not caused by an allergic reaction.

REF: Mucous Retention Lesions, page 57

OBJ: 19

30. Necrotizing sialometaplasia is thought to result from:
- A. lack of blood supply to the affected salivary gland.
 - B. a sialolith.
 - C. trauma to the floor of the mouth.
 - D. pleomorphic adenoma.

ANS: A

	Feedback
A	Correct! Necrotizing sialometaplasia results from lack of blood supply to the affected salivary gland.
B	A sialolith is a salivary gland stone that causes an obstruction in the salivary gland.
C	Necrotizing sialometaplasia occurs on the hard palate, not the floor of the mouth.
D	Pleomorphic adenoma is a benign salivary gland tumor found unilaterally on the posterior palate.

31. Which of the following is most likely to result in frictional keratosis?
- A. High-fiber diet
 - B. Chewing on an edentulous ridge
 - C. Malignancy
 - D. Daily use of mouthwash

ANS: B

	Feedback
A	A high-fiber diet does not cause frictional keratosis.
B	Correct! Frictional keratosis results from chronic chewing on an edentulous ridge.
C	Frictional keratosis is not associated with malignancy.
D	Mouthwashes do not cause frictional keratosis.

32. This lesion on the palate is typically associated with heavy pipe and cigar smoking and is called:



- A. tobacco pouch keratosis.
- B. necrotizing sialometaplasia.
- C. nicotine stomatitis.
- D. frictional keratosis.

ANS: C

	Feedback
A	Tobacco pouch keratosis occurs in the mucobuccal fold and is caused by chewing/spitting tobacco.
B	Necrotizing sialometaplasia is caused by lack of blood supply to a specific area of the palate. An ulcer is often present.
C	Correct! Nicotine stomatitis is a benign lesion of the hard palate typically associated with heavy pipe and cigar smoking.
D	Frictional keratosis results from chronic chewing on an edentulous alveolar ridge.

33. Traumatic neuroma is a lesion caused by injury to:

- A. The epithelium
- B. A peripheral nerve
- C. A salivary gland
- D. Striated muscle

ANS: B

	Feedback
A	The traumatic neuroma does not result from epithelial injury.
B	Correct! The traumatic neuroma is a lesion caused by injury to a peripheral nerve. The mental foramen is the most common location.
C	The traumatic neuroma does not result from injury to a salivary gland.
D	The traumatic neuroma does not result from injury to striated muscle.

REF: Traumatic Neuroma, page 54 OBJ: 18

34. Which of the following is a lesion that occurs on the gingiva or alveolar process and contains many multinucleated giant cells, red blood cells, and chronic inflammatory cells?
- A. Ranula
 - B. Central giant cell granuloma
 - C. Fibroma
 - D. Peripheral giant cell granuloma

ANS: D

	Feedback
A	The ranula is found on the floor of the mouth.
B	The central giant cell granuloma is found within bone.
C	The fibroma occurs most frequently on the buccal mucosa and is composed of dense scarlike connective tissue containing few blood vessels.
D	Correct! The peripheral giant cell granuloma occurs on the gingiva or alveolar process; originates from the periodontal ligament; is thought to be a response to injury; and histologically is characterized by many multinucleated giant cells, red blood cells, and inflammatory cells.

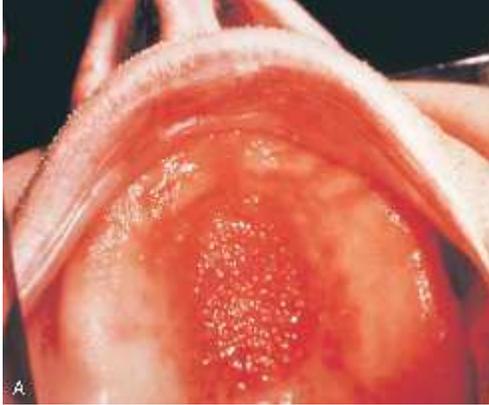
REF: Peripheral Giant Cell Granuloma, page 60 OBJ: 18

35. Epulis fissuratum is caused by:
- A. Denture adhesive products
 - B. Poor suction in the palatal vault
 - C. Poor denture hygiene
 - D. An ill-fitting denture flange

ANS: D

	Feedback
A	Denture adhesive products do not cause epulis fissuratum.
B	Poor suction in the palatal vault causes papillary hyperplasia of the palate.
C	Poor denture hygiene does not cause epulis fissuratum.
D	Correct! Epulis fissuratum is caused by an ill-fitting denture flange.

36. This granular, erythematous papillary surface of the palatal vault was caused by:



- A. Poor oral hygiene
- B. An ill-fitting suction area of a maxillary denture
- C. The denture flange
- D. Soaking the denture in caustic rinses

ANS: B

	Feedback
A	Poor oral hygiene does not cause papillary hyperplasia. It may contribute to the inflammatory response of the area.
B	Correct! Papillary hyperplasia is caused by the palatal suction of an ill-fitting maxillary denture.
C	The ill-fitting denture flange causes epulis fissuratum.
D	Soaking the denture in caustic rinses may contribute to inflammation but not papillary hyperplasia.

37. The most common site for the pulp polyp is:
- A. the occlusal surface of a large open carious tooth.
 - B. the apex of the tooth.
 - C. the gingival margin of the tooth.
 - D. deep in the pulp canal.

ANS: A

	Feedback
A	Correct! The most common site for the pulp polyp is in the occlusal surface of large open carious teeth. It is seen as a red or pink nodule that fills the occlusal surface. It is an excessive proliferation of chronically inflamed dental pulp tissue.
B	Pulp polyps are not seen at the apex of teeth.
C	Pulp polyps are not seen on the gingival margin of teeth.
D	Pulp polyps are not seen deep in the pulp canal.

38. Which one of the following does *not* cause gingival enlargement?
- A. Hormonal changes
 - B. Calcium channel blockers
 - C. Hereditary factors
 - D. Nitroglycerin

ANS: D

	Feedback
A	Hormonal changes do contribute to gingival enlargement.
B	Calcium channel blockers do cause gingival enlargement.
C	Certain hereditary factors do cause gingival enlargement.
D	Correct! Nitroglycerin is prescribed for angina and does not cause gingival enlargement.

39. Which one of the following inflammatory periapical lesions is most painful?
- A. Periapical abscess
 - B. Periapical granuloma
 - C. Radicular cyst
 - D. Residual cyst

ANS: A

	Feedback
A	Correct! The periapical abscess is associated with severe pain caused by the inflammation.
B	Periapical granuloma is most often asymptomatic.
C	The radicular cyst is often asymptomatic and discovered on radiographic examination.
D	The residual cyst forms when the radicular cyst is incompletely removed and left behind at the extraction site.

40. Resorption of tooth structure from outside the tooth is called:
- A. internal resorption.
 - B. external resorption.
 - C. idiopathic tooth resorption.
 - D. condensing osteitis.

ANS: B

	Feedback
A	Internal resorption begins inside the pulpal area.
B	Correct! External resorption begins outside the tooth.
C	Idiopathic tooth resorption can involve the crown or roots of impacted teeth, and the cause cannot be identified.

D	Condensing osteitis is a change in the bone near the apices of teeth that is thought to be a reaction to a low-grade infection. The mandibular first molar is most commonly involved, and the area is seen radiographically as a radiopacity below the root apex of the involved tooth.
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REF: Tooth Resorption, page 64

OBJ: 13

41. A process during inflammation in which white blood cells move to the blood vessel wall is referred to as:
- chemotaxis.
 - margination.
 - leukocytosis.
 - transudate.

ANS: B

	Feedback
A	Chemotaxis is the directed movement of white blood cells to the area of injury by biochemical mediators.
B	Correct! Margination is defined as a process during inflammation in which white blood cells move to the blood vessel wall.
C	Leukocytosis is a temporary increase in the number of white blood cells circulating in blood.
D	Transudate is the fluid component of blood that normally passes through the endothelial walls of the microvasculature.

REF: Microscopic Events of Inflammation and Clinical Signs, page 35

OBJ: 1

42. An example of an irreversible cellular response that occurs during tissue injury is:
- atrophy.
 - hypertrophy.
 - hyperplasia.
 - necrosis.

ANS: D

	Feedback
A	Atrophy is an example of a reversible cellular response.
B	Hypertrophy is an example of a reversible cellular response.
C	Hyperplasia is an example of a reversible cellular response.
D	Correct! Necrosis is the pathologic death of one or more cells or a portion of the tissue or an organ that results from irreversible damage to cells.

REF: Injury, page 34

OBJ: 2

43. The inflammatory response is a dynamic process, continually changing in response to injury and repair. Repair of tissue occurs only if the persistent source of injury is removed.
- Both statements are true.
 - Both statements are false.
 - The first statement is true; the second is false.

D. The first statement is false; the second is true.

ANS: A

	Feedback
A	Correct! Both statements are true.
B	Both statements are true.
C	Both statements are true.
D	Both statements are true.

REF: Inflammation, page 34

OBJ: 3

44. Hyperemia is responsible for which two clinical signs of inflammation?
- A. Emigration and pain
 - B. Heat and erythema
 - C. Transudation and redness
 - D. Swelling and chemotaxis

ANS: B

	Feedback
A	Emigration is the process by which the white blood cells escape from the blood vessels and is not a clinical sign of inflammation.
B	Correct! Heat and erythema are caused by hyperemia.
C	Transudation is the process of plasma cells passing between the endothelial cells and entering the tissue and is not a clinical sign of inflammation.
D	Chemotaxis is the directed movement of white blood cells toward the site of the injury and is not a clinical sign of inflammation.

REF: Microscopic Events of Inflammation and Clinical Signs, page 35

OBJ: 4

45. During the microscopic event of inflammation, pain may be caused by which of the following?
- A. Phagocytosis
 - B. Leukocytosis
 - C. Exudate formation
 - D. Anaphylaxis

ANS: C

	Feedback
A	Phagocytosis is the ingestion and digestion of foreign substances and is not a cause of pain.
B	Leukocytosis is an increase in the number of white blood cells and is not a cause of pain.
C	Correct! Exudate presses on sensory nerves and may cause pain.
D	Anaphylaxis is a type of hypersensitivity or allergic reaction and is not a direct cause of pain.

REF: Microscopic Events of Inflammation and Clinical Signs, page 35

OBJ: 5

46. During the acute inflammatory process, the second type of white blood cell to emigrate from the blood vessel into the injured tissue is the:
- A. macrophage.
 - B. neutrophil.
 - C. plasma cell.
 - D. lymphocyte.

ANS: A

	Feedback
A	Correct! The macrophage is the second cell to participate in the inflammatory response.
B	The neutrophil is the first cell to arrive at the site of injury and is the primary cell involved in acute inflammation.
C	The plasma cell is involved in chronic inflammation.
D	The lymphocyte is involved in chronic inflammation.

REF: White Blood Cells in the Inflammatory Response, page 38

OBJ: 6

47. Each of the following statements regarding the atrophy of tissue cells is true except one. Which one is the *exception*?
- A. Atrophied cells are capable of returning to their normal size after stress is removed.
 - B. Atrophy can occur with changes in cellular growth, malnutrition, ischemia, or hormonal changes.
 - C. Atrophy can be present in the muscular wasting that occurs in some chronic diseases that do not allow for mobility.
 - D. Atrophy occurs in the smooth muscles of the uterus and the mammary glands in response to pregnancy.

ANS: D

	Feedback
A	This statement is true.
B	This statement is true.
C	This statement is true.
D	Correct! Hypertrophy occurs in the smooth muscles of the uterus and the mammary glands in response to pregnancy.

REF: Reactive Tissue Response, page 43

OBJ: 8

48. If the source of injury has been completely removed, the inflammation and immune responses in the tissues are completed in approximately what time frame?
- A. Day after removal of injury
 - B. Two days after removal of injury
 - C. Seven days after removal of injury
 - D. Two weeks after removal of injury

ANS: C

	Feedback
A	The day after injury removal, acute inflammation takes place in the area of future repair.
B	Two days after removal of injury, fibroplasia, angiogenesis, the formation of granulation tissue, and epithelialization occur.
C	Correct! If the source of injury has been completely removed, the inflammation and immune responses in the tissues are completed in approximately 7 days.
D	Two weeks after removal of injury, matured fibrous connective tissue or scar tissue occurs.

REF: Seven Days After Injury, page 45 OBJ: 9

49. Repair of bone injury is similar to the process that takes place in fibrous connective tissue except that it involves the creation of bone tissue. The removal of osteoblast-producing tissues and excessive movement of the bone promote bone healing.
- A. Both statements are true.
 - B. Both statements are false.
 - C. The first statement is true; the second is false.
 - D. The first statement is false; the second is true.

ANS: C

	Feedback
A	The first statement is true and the second is false.
B	The first statement is true and the second is false.
C	Correct! The removal of osteoblast-producing tissues and excessive movement of the bone can interrupt healing.
D	The first statement is true and the second is false.

REF: Bone Tissue Repair, page 46 OBJ: 10

50. In cases of healing, if an infected injury is left open and the edges are not surgically joined until the infection is controlled, this is referred to as _____ intention.
- A. primary
 - B. secondary
 - C. tertiary

ANS: C

	Feedback
A	Healing by primary intention refers to the healing of an injury in which little loss of tissue takes place.
B	Healing by secondary intention involves injury in which tissue is lost; thus the edges of the injury cannot be joined by healing.
C	Correct! Healing by tertiary intention occurs when an infected injury is left open and the edges are not surgically joined until the infection is controlled.

REF: Healing by Tertiary Intention, page 46

OBJ: 11

51. Each of the following is a factor that may impair healing except one. Which one is the *exception*?
- A. Tobacco use
 - B. *Staphylococcus*
 - C. Nutritional supplements
 - D. Renal failure

ANS: C

	Feedback
A	Tobacco use has been shown to impair healing.
B	<i>Staphylococcus</i> infection has been shown to impair healing.
C	Correct! The use of nutritional supplements has not been shown to impair healing.
D	Renal failure has been shown to impair healing.

REF: Factors that Impair Healing, page 46

OBJ: 12

52. A tooth must be extracted if internal root resorption is present and a perforation occurs.
- A. Both the statement and reason are correct and related.
 - B. Both the statement and reason are correct but *not* related.
 - C. The statement is correct, but the reason is *not*.
 - D. The statement is *not* correct, but the reason is correct.
 - E. *Neither* the statement *nor* the reason is correct.

ANS: A

	Feedback
A	Correct! A tooth must be extracted if internal root resorption is present and a perforation occurs.
B	Both the statement and reason are correct and related.
C	Both the statement and reason are correct and related.
D	Both the statement and reason are correct and related.
E	Both the statement and reason are correct and related.

REF: Tooth Resorption, page 64

OBJ: 13

53. A wedge-shaped defect at the cervical area of a tooth, the cause of which is related to microfracture of the tooth structure in areas of concentration of stress, is called:
- A. attrition.
 - B. erosion.
 - C. abrasion.
 - D. abfraction.

ANS: D

	Feedback
A	Attrition is defined as the wearing away of tooth structure during mastication.
B	Erosion is the loss of tooth structure from chemical action.
C	Abrasion is a pathologic wearing of tooth structure resulting from a repetitive mechanical habit.

D	Correct! Abfraction is the result of biomechanical forces on the teeth.
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REF: Abfraction, page 48

OBJ: 14

54. Which of the following is characteristic of erosion?
- It is a pathologic wearing away of tooth structure that results from a repetitive mechanical habit.
 - It is caused by local factors such as occlusal interferences in combination with stress and tension.
 - If tooth structure is lost around a restoration, the restoration will appear raised from the surrounding demineralized tooth structure.
 - Its first clinical sign is the disappearance of mamelons on the anterior teeth and the flattening of occlusal cusps on the molar teeth.

ANS: C

	Feedback
A	This is the definition of abrasion.
B	This describes bruxism.
C	Correct! This phenomenon is seen in erosion and is not seen in abrasion, bruxism, or attrition.
D	This describes attrition.

REF: Erosion, pages 48-49

OBJ: 15

55. Aspirin burn to the oral mucosa appears as:
- white.
 - pigmented.
 - bulbous.
 - papillary.

ANS: A

	Feedback
A	Correct! Aspirin burn causes the tissue to become necrotic and appears white.
B	Aspirin burn does not appear pigmented.
C	Aspirin burn does not appear bulbous.
D	Aspirin burn does not appear papillary.

REF: Aspirin Burn, page 50

OBJ: 17

56. The most likely cause of a ranula is:
- inflammation of gland tissue.
 - blockage of blood supply.
 - trauma to a minor duct.
 - salivary duct obstruction.

ANS: D

	Feedback
A	Inflammation of salivary gland tissue is referred to as <i>sialadenitis</i> .

B	Necrotizing sialometaplasia results from blockage of the blood supply.
C	The major cause of a mucocele is trauma to a minor duct.
D	Correct! Salivary gland obstruction is the most likely cause of a ranula.

REF: Mucous Retention Lesions, page 58

OBJ: 19

57. Each of the following is most likely to result in frictional keratosis except one. Which one is the *exception*?
- A. Chronic cheek biting
 - B. Chewing on an edentulous ridge
 - C. Cigarette smoking
 - D. Tongue chewing

ANS: C

Feedback	
A	Chronic cheek biting can result in frictional keratosis.
B	Frictional keratosis results from chronic chewing on an edentulous ridge.
C	Correct! Frictional keratosis is not associated with cigarette smoking.
D	Tongue chewing can result in frictional keratosis.

REF: Frictional Keratosis, page 53

OBJ: 17

58. This sessile-based lesion is on the gingiva of a 13-year-old female. It is soft to palpation and bleeds easily.



The accurate diagnosis for this lesion is:

- A. peripheral giant cell granuloma.
- B. pyogenic granuloma.
- C. traumatic neuroma.
- D. irritation fibroma.

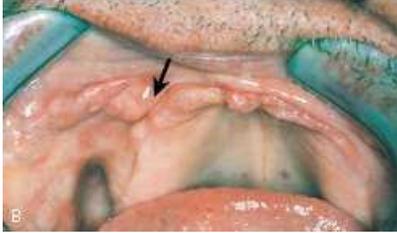
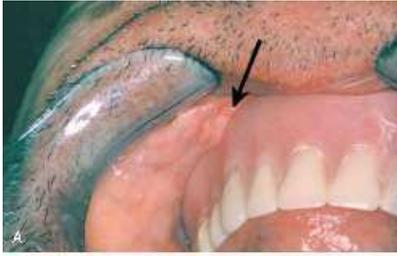
ANS: B

Feedback	
A	Peripheral giant cell granuloma does not exhibit these characteristics.
B	Correct! Pyogenic granulomas are commonly found in teenagers and exhibit a lesion that is soft to palpation and bleeds easily.
C	Traumatic neuroma does not exhibit these characteristics.
D	Irritation fibroma does not exhibit these characteristics.

REF: Pyogenic Granuloma, page 59

OBJ: 19

59. These elongated folds of tissue are a result of irritation from an ill-fitting denture.



The accurate diagnosis for this lesion is:

- A. palatal papillomatosis.
- B. gingival hyperplasia.
- C. chronic hyperplastic pulpitis.
- D. epulis fissuratum.

ANS: D

	Feedback
A	Palatal papillomatosis is seen on the palate.
B	Gingival hyperplasia is an enlargement of the gingiva.
C	Chronic hyperplastic pulpitis is an excessive proliferation of chronically inflamed dental pulp tissue.
D	Correct! Epulis fissuratum (denture-induced fibrous hyperplasia) consists of elongated folds of tissue as a result of irritation from an ill-fitting denture.

REF: Denture-induced Fibrous Hyperplasia, page 61

OBJ: 18