

Name: _____

Final Examination - D-273 Introduction to Periodontology - spring 2008

Instructions: Select the single best answer for each question. Fill in your answers, name, and the last 4 digits of your student number on the computer sheet. Both this examination copy and the computer answer sheet must be turned in. You have until 3:00 pm to complete the examination. No questions during the examination to supervising proctors will be answered. Each question is worth 2.5 points.

1. Which of the following is correct relative to IgG antibodies against dental plaque bacteria?
 - A. They are comprised of various carbohydrates.
 - B. They are synthesized by host T lymphocytes.
 - C. Their Fc surface receptors may enhance phagocytic ingestion by neutrophils by serving as an opsonin on bacterial cell surfaces.
 - D. They mature in the bone marrow and have a lifespan of 7-20 hours.
2. An absence of alveolar bone which extends over the root to the alveolar margin is called:
 - A. Pericoronal abscess
 - B. Fenestration
 - C. Cribiform plate
 - D. Dehiscence
3. Acellular extrinsic fiber cementum is:
 - A. devoid of all cells other than fibroblasts and neutrophils.
 - B. found mostly in the cervical third of tooth roots.
 - C. produced by cementoblasts alone.
 - D. does not have extrinsic Sharpey's fibers.
4. Necrotizing ulcerative periodontitis is most frequently found:
 - A. related to a Vitamin C deficiency.
 - B. in persons with an absence of CD18 neutrophil adhesion molecules.
 - C. associated with HIV infection
 - D. none of the above
5. The average width of the periodontal ligament around a functional permanent tooth is approximately:
 - A. 0.03 mm
 - B. 0.2 mm
 - C. 1.0 mm
 - D. 2.0 mm
6. The established gingivitis lesion:
 - A. will always convert to more progressive disease resulting in loss of periodontal attachment.
 - B. is dominated by B-cells and plasma cells in connective tissue inflammatory infiltrates.
 - C. usually exhibits slight crestal alveolar bone loss.
 - D. appears within one week after the onset of initial gingival inflammation.
7. The early gingivitis lesion:
 - A. usually exhibits loss of circular and dentogingival fibers in supragingival connective tissues.
 - B. has large numbers of antibodies in the junctional epithelium.
 - C. does not exhibit gingival bleeding on probing.
 - D. occurs within 2-3 days of undisturbed dental plaque growth.

8. In the earliest stages of onset of gingivitis in humans, vasculitis and dilation of the host microvasculature in response to dental plaque bacterial growth occurs first at which of the following?
- A. At the most coronal aspect of the junctional epithelium in closest proximity to the advancing apical front of dental plaque growth.
 - B. In gingival connective tissues immediately adjacent to the outer epithelium and free gingival groove.
 - C. Immediately apical of the junctional epithelium.
 - D. At the tip of interdental papillae.
9. Within inflamed human gingival connective tissue, the number of intact supracrestal collagen bundles and the number of infiltrating inflammatory cells:
- A. are not related to each other.
 - B. exhibit a positive relationship.
 - C. demonstrate an inverse relationship.
 - D. are present in similar numbers when B-cells and plasma cells are prominent.
10. According to the NHANES-III national survey data for the United States non-institutionalized civilian population, the highest prevalence of gingivitis is found in:
- A. elderly persons aged 65 years and older.
 - B. females.
 - C. smokers.
 - D. teenagers less than 18 years old.
11. In Loe's 1965 classic experimental gingivitis study, which of the following is correct?
- A. An inverse relationship was demonstrated for the first time in humans between dental plaque growth on teeth and gingivitis.
 - B. Gingival inflammation resolved in all study subjects within one day following the resumption of oral hygiene measures.
 - C. All of the study subjects developed gingivitis within three weeks after abstaining from all oral hygiene measures.
 - D. Only initial gingivitis lesions were found.
12. All of the following species are associated with the initiation of chronic periodontitis, that is those sites converting from health to periodontitis, except
- A. *Porphyromonas gingivalis*
 - B. *Tannerella forsythensis*
 - C. *Treponema denticola*
 - D. *Streptococcus mitis*
13. A patient with generalized moderate chronic periodontitis would demonstrate which of the following?
- 1. 1-2 mm of attachment loss
 - 2. 3-4 mm of attachment loss
 - 3. 5+ mm of attachment loss
 - 4. less than 30% of the sites involved
 - 5. greater than 30% of the sites involved
- A. #1 and #5 of the above only
 - B. #2 and #4 of the above only
 - C. #3 and #5 of the above only
 - D. #2 and #5 of the above only

14. The distance from the CEJ to the base of the pocket is a measure of

- A. clinical attachment level
- B. gingival recession
- C. probing pocket depth
- D. alveolar bone loss

15. Which of the following is **false** regarding risk factors for periodontitis?

- A. Periodontitis prevalence increases with age.
- B. Blacks and Mexicans exhibit a higher prevalence of periodontitis than whites.
- C. Females have a higher prevalence and severity of periodontitis than males.
- D. Periodontitis is strongly associated with systemic diseases reducing neutrophil functions (impaired host defenses).

16. Which of the following smoking and periodontal diseases is **false**?

- A. Smoking has no effect on periodontal tissues if the patient has good hygiene.
- B. The periodontitis risk for smokers is 2-7 times greater when compared to non-smokers.
- C. Smoking reduces periodontal host defenses.
- D. Smoking facilitates bacterial pathogen colonization in periodontal pockets.

17. Progression of periodontitis in humans:

- A. always follows the continuous model of disease progression.
- B. always follows the episodic model of disease progression.
- C. may exhibit both the continuous and the episodic pattern of periodontitis disease progression, either of which can appear in different patients, or at different sites within the same patient, or at different times within the same patient.
- D. none of the above

18. Which of the following regarding an infrabony pocket are true?

- 1. The bottom of the pocket is coronal to alveolar bone crest.
- 2. The bottom of the pocket is apical to the alveolar bone crest. ✓
- 3. The lateral wall of the periodontal pocket is between tooth root surface and alveolar bone. ✓
- 4. Radiographically it appears as vertical bone loss. ✓
- 5. Radiographically it appears as horizontal bone loss.

- A. #1, #3 and #4 of the above only
- B. #2, #3 and #5 of the above only
- C. #2, #3 and #4 of the above only
- D. #1 and #3 of the above only

19. The "Advanced Lesion" shows all of the following **except**:

- A. Extension of the lesion into alveolar bone and periodontal ligament with bone loss and attachment loss.
- B. The junctional epithelium proliferates and shifts apically into area of collagen destruction.
- C. The epithelium of the pocket wall proliferates into the connective tissue and exhibits localized necrosis leading to ulceration and exposure of the underlying connective tissue.
- D. The area of inflammation in the connective tissue is only about 5-10% of the connective tissue volume.

Early

20. Osseointegration as proposed by Branemark (1969) states there is a circumferential connective tissue interface between the bone and titanium surface.

A. The statement is true.

☒ B. The statement is false.

21. The most unfavorable bone to place an implant is in:

A. Type 1 bone. *Most Favourable*

B. Type 2 bone.

C. Type 3 bone.

☒ D. Type 4 bone.

22. Mandibular implants should be placed at least ____ mm coronal to the mandibular canal.

A. 0.5 mm

B. 0.75 mm

☒ C. 2 mm

D. 1.0 mm

23. The buccal-lingual dimension of alveolar bone remaining after an implant is placed should be at least:

☒ A. 1.5-2 mm.

B. 0.5 mm.

C. 1.0 mm.

D. one-third wider than the diameter of the implant being placed.

24. According to the clinical research study by Rosenberg et al. (1991), a traumatic implant failure will commonly exhibit which of the following:

A. suppuration.

☒ B. shallow probing depths.

C. high peri-implant levels of *Porphyromonas gingivalis*.

D. all of the above.

25. According to course textbook, the Periotest is used to evaluate:

A. quality of alveolar bone.

B. the temperature within the osteotomy site prior to implant placement.

☒ C. endosseous implant rigidity.

D. the general periodontal condition of the remaining natural dentition within an implant patient.

26. The interface between epithelial cells and the titanium surface of a dental implant is characterized by the presence of:

☒ A. hemidesmosomes

B. desmosomes

C. a periodontal ligament

D. neutrophils

27. According to Dr. Linkow's lecture, after bending the abutment portion of a blade implant, you should tap it in from the abutment head.

A. The statement is true.

☒ B. The statement is false.

28. According to Dr. Linkow's lecture, an epithelial inclusion has no effect on the residual osteotomy site.

A. True

→ B. False

29. According to Dr. Linkow's lecture, the lining of the maxillary sinus is called which of the following?

→ A. Schneiderian membrane.

B. Periosteal membrane.

C. Zygomatic membrane.

D. The sinus does not have a lining.

30. According to Dr. Linkow's lecture, a tripodial subperiosteal dental implant was used to:

A. distribute forces.

B. grow vertical bone.

C. prevent fracture of the jaw.

→ D. both A and C

31. Ulcerative lichen planus:

A. can be controlled with topical anesthetics.

→ B. has the potential to become malignant.

C. is successfully treated with penicillin.

D. is successfully treated with antiseptic mouthwashes.

32. Your patient reports a sudden generalized swelling of the gingiva. Which of the following is most likely to be present?

→ A. An allergic reaction

B. pyogenic granuloma

C. aphthous stomatitis

D. PMNR (periadinitis mucosa necrotica recurrens)

33. Which of the following is not a potential cause of gingival hyperplasia?

A. genetic predisposition

B. ingestion of calcium channel blocking drugs

C. development of neoplasia

→ D. toothbrush abrasion

34. Which of the following differentiates recurrent aphthous ulcers (RAU) from secondary herpes lesions?

→ A. RAU occur on attached gingiva. *(not correct; herpes is on attached gingiva)*

B. RAU is not responsive to topical or systemic steroid treatments.

C. RAU is caused by bacteria instead of a virus.

D. none of the above

35. Patients treated with chemotherapeutic agents and radiation for cancer:

A. often have a dry mouth.

B. should use a low-trauma toothbrushing technique.

C. may need sedative/analgesic mouthwashes.

→ D. all of the above

36. Which of the following is not associated with a periodontal abscess?

- A. No periapical radiolucency is present.
- B. Sensitivity to heat and/or cold is present on the immediately adjacent tooth.
- C. A periodontal pocket leading to the abscess can be detected.
- D. The swelling is usually coronally positioned.

37. Where are pericoronitis lesions most often located?

- A. Interdentally between the first and second mandibular molars.
- B. Associated with the distal-occlusal surfaces of mandibular third molars.
- C. On maxillary third molars.
- D. none of the above.

38. In which of the histologic zones of ANUG is spirochetal invasion of intact gingival tissues found?

- A. Zone 1
- B. Zone 2
- C. Zone 3
- D. Zone 4

39. Which of the following are contagious between affected and non-affected persons?

- A. pemphigoid
- B. acute herpetic gingivostomatitis
- C. Noma
- D. all of the above

40. Which of the following will not respond to antibiotic therapy?

- A. pericoronitis
- B. ANUG
- C. *Candida albicans* infections
- D. Noma