

Student Name: \_\_\_\_\_  
Student ID: \_\_\_\_\_

*TMD – Final*  
*November 13, 2006*

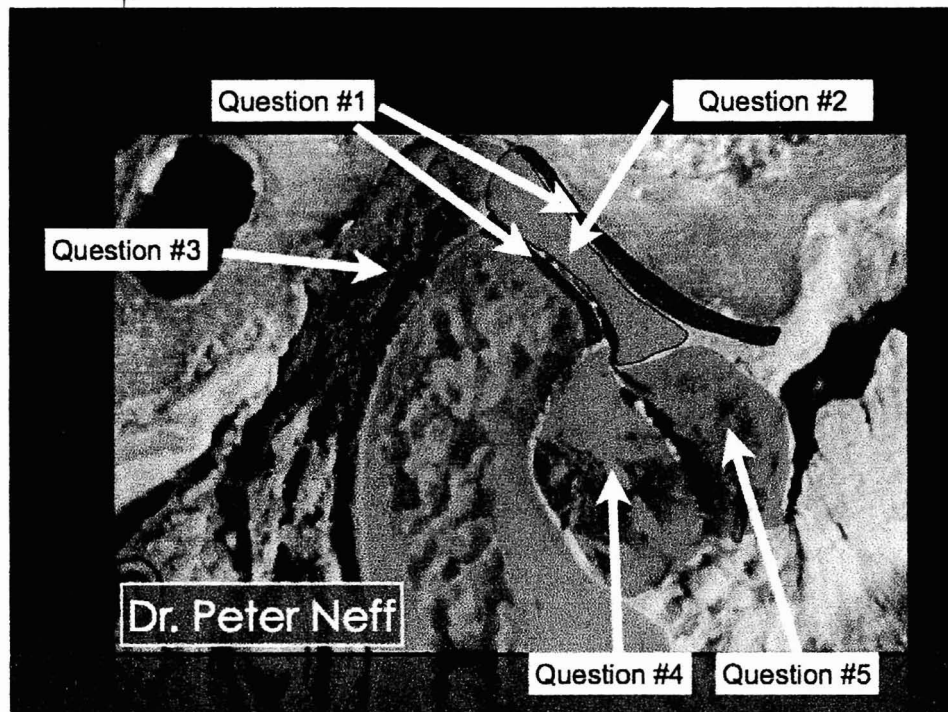
Place **NAME** and  
**STUDENT NUMBER**

on  
**ALL PAGES**

Where indicated

**ALL TEST PAGES  
MUST BE TURNED IN  
WHEN FINISHED**

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Use the above picture to answer questions #1 thru #5, Identify the appropriate structures from the drawing and write it on your exam sheet.

1. Name the appropriate structure indicated on diagram above  
Articular surfaces of condyle and eminence

2. Name the appropriate structure indicated on diagram above

TMJ disc

3. Name the appropriate structure indicated on diagram above

Retrodiscal tissue.

4. Name the appropriate structure indicated on diagram above

lateral pterygoid (inferior belly).

5. Name the appropriate structure indicated on diagram above

lateral pterygoid (superior belly).

5 + 36 = 41

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6. What is the most important reason a stabilization appliance should cover the posterior and provide posterior occlusion?

- ☒ a. To prevent indentations in the acrylic from locking the mandible in place
- ☒ b. With heavy anterior occlusion teeth can wear, fracture, move, become mobile and be symptomatic
- ☒ c. Stabilization of teeth to allow patient to "get into" CR
- d. Prevent the potential need for orthodontic treatment
- e. None of the above

7. A patient walks into your office with signs and symptoms of TMD. Exam reveals excessive vertical overlap of 10mm, lateral movement left – 10mm right – 12mm, lateral working interference #5, missing teeth #2, 3, 4, 13, 14, 15. Definitive treatment for this patient would most likely be:

- a. Stabilization appliance, occlusal equilibration, implant retained crowns and/or removable partials and stabilization appliance
- ☒ b. Stabilization appliance, orthodontic consultation, implant retained crowns and/or removable partials
- c. Stabilization appliance, implant retained crowns and/or removable partials
- d. Complete Maxillary denture

8. Some studies have shown that soft appliances ("bleaching type" appliances) can intrude posterior teeth; these types of appliances can be routinely used for patients that can't tolerate standard stabilization appliances.

- a. First statement is true; second statement is true
- ☒ b. First statement is true; second statement is false
- c. First statement is false; second statement is true
- d. First statement is false; second statement is false

9. In class we discussed major disadvantages in using a soft "rubbery" "bleaching-type" mouth guards for bruxing patients, they are

- a. Too soft and thus wear through easily (many students picked this answer even though we never mentioned this answer as a disadvantage, only stated increase bruxing and intrude)
- b. Increase bruxing
- c. Intrude posterior teeth
- ☒ d. All the above

10. Migraine headaches are characterized by all of the below EXCEPT

- ☒ a. activation of the trigeminal vascular system
- ☒ b. vascular changes
- ☒ c. affects the endogenous pain control mechanisms
- ☒ d. associated with tearing, rhinorrhea, vasodilatation
- e. None of the above

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11.

Which of the following headaches is typically **not** associated with pain in or around the eye?

- a. Temporal arteritis ✓
- b. Maxillary sinusitis ✓
- c. Tension-type headache ✗
- d. Migraine with aura ✓
- e. Cluster headache ✓

12. Which of the following headaches is typically **not** associated with increased pain with head movement?

- a. Meningitis ✓
- b. Migraine with aura ✓
- c. Sinusitis ✓
- d. Tension type headache ✗
- e. Migraine without aura

13. The occurrence of a persistent headache associated with systemic signs and symptoms for the first time in a person over the age of 50 is significant. The primary concern is the possible diagnosis of:

- a. Migraine with aura
- b. Cluster headache
- c. Meningitis ✓
- d. Sphenoidal sinusitis
- e. Temporal arteritis

14. Which type of pain is classically associated with a vascular headache?

- a. dull, aching ✗
- b. sharp, shooting ✗
- c. throbbing, pounding ✓
- d. electric shock-like
- e. soreness, tightness

15. Stress has been identified as a precipitating factor in both migraines and tension type headaches. Which of the following statements is true?

- a. Tension - type headaches typically occur after the stressful situation. ✓
- b. Migraine headaches typically occur after the stressful situation. ✓
- c. Migraine headaches typically occur during the stressful situation.
- d. Both migraine and tension headaches typically occur during the stressful situation.
- e. Both migraine and tension-type headaches occur after the stressful situation. ✓

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16. Photophobia, phonophobia and osmophobia are commonly associated with which type of headache?

- a. Tension-type headache
- b. Migraine ✓
- c. Temporal arteritis
- d. Meningitis
- e. Maxillary sinusitis

17. Which important chemical mediator has been associated with the development of migraine and tension-type headaches?

- a. norepinephrine
- b. dopamine
- c. serotonin
- d. histamine
- e. interleukin

18. The TMJ is supported by

- a. temporomandibular ligament
- b. bilateral zone
- c. retrodiscal tissue
- d. all of the above

19. Which of the following would the patient most likely report an inability to "open wide"

- a. anterior displaced disc with reduction of left joint ✕
- b. anterior displaced disc with reduction of right joint ✕
- c. anterior displaced disc without reduction ✓
- d. All of the above
- e. None of the above

20. Centric relation is used as a treatment position because it is

- a. Stable position under considerable stress at the joint for many years
- b. a repeatable position ✓
- c. It is a treatment position, which will not change with time ✕
- d. All of the above

21. Your patient opens 20mm unassisted. You can increase their opening to 40mm by pressing down on the mandibular centrals.

- a) the patient exhibits an anterior displaced disc without reduction
- b) muscle restriction of mandible ✓
- c) shortening of TMJ ligaments
- d) all of the above

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22. You examine teeth #8 & #9 and detect fremitus. Most likely etiology could be *medial ...*
- a. heavy contact in maximum intercuspation on lingual of crown #9 by mandibular central(s) ✓
  - b. Mandibular stabilization appliance unmonitored ✓
  - c. Patient was in a fight and was severely punched in the mouth ✓
  - d. All of the above
23. A patient reports symptoms; pain, tightness, inability to open wide, inability to move left and right in the muscles of mastication. Appropriate treatment is
- a. Stabilization Appliance covering maxillary arch ✓
  - b. Stabilization Appliance covering mandibular arch
  - c. Stabilization Appliance covering mandibular posterior teeth
  - d. A & B
  - e. All of the above
24. In class we discussed 5 occlusal problems which may predisposes a patient to TMD. Which of the following would not predispose a patient to TMD
- ✓ a. Anterior open bite
  - ✓ b. Class II division with lateral non-working interferences and severe horizontal overlap
  - ✓ c. Maxillary unilateral cross bite
  - d. Bilateral missing mandibular posterior teeth *75 only*
  - ✓ d. Class I with lateral non-working interferences *✓*
  - e. More than of the above
25. A patient reports pain in masseter muscles; mandible deviates severely to the left on wide opening and has an opening and closing click. The diagnosis is most likely
- a. Displaced disc with reduction of right TMJ ✓
  - ~~b. Displaced disc with reduction of left TMJ~~
  - ~~c. Displaced disc without reduction of left TMJ~~ *✓*
  - d. Displaced disc without reduction of right TMJ *✓*
  - e. A & D *A & C*
26. While examining a new patient, they state their chief complaint as pain in jaw muscles, clicking of both joints and numerous posterior teeth. Multiple non-working interferences are documented. Your initial treatment recommendations are:
- a. Endodontic consultation of symptomatic posterior teeth
  - b. Adjustment of non-working interferences
  - c. Stabilization appliance
  - d. Anterior repositioning appliance
  - e. All of the above are acceptable initial treatments

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27. You just finish preparing a tooth #31 for a crown, which took you 2 ½ hours. You ask your patient to close and they can't. Your diagnosis would most likely be:

- a. displaced disc without reduction —
- b. displaced disc with reduction ✕
- c. spontaneous dislocation
- d. two of the above
- e. all of the above

28. Your patient presents with opening and closing clicking with intracapsular pain. Your primary treatment goal should be:

- a. increase inter-incisal opening ✕
- b. reduction of pain ✓
- c. reposition disc in it's proper relation
- d. surgery
- e. all of the above

29. You would order radiographs for your patient for:

- a. insurance companies
- b. base line information
- c. diagnosis ✓
- d. two of the above
- e. all of the above

30. The disc is attached to the ramus of the mandible by

- a. collateral ligaments ✓
- b. posterior attachment
- c. oblique ligaments
- d. all of the above
- e. none of the above

31. Your patient require crown and bridge treatment on all of the maxillary teeth, which of the following is true when sending case to the lab.

- a. mount case with maximum intercuspation interocclusal record
- b. mount case with a regular interocclusal record
- c. mount case with centric relation interocclusal record
- d. all of the above are acceptable for this case
- e. Depends on Preceptor

32. Which of the following may increase a patients bruxism

- a. occlusal splint constructed at CR
- b. occlusal splint constructed at maximum intercuspation ✕
- c. mandibular occlusal splint
- d. anterior stop
- e. soft "rubbery-type" mouth guard occlusal splint ✓

To see a funny video, go to [www.youtube.com](http://www.youtube.com), search for "Mother's Day Card"

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33. The primary purpose of the stabilization phase of splint construction is
- mandibular support
  - prevent tooth movement
  - posterior tooth guidance ✗
  - all of the above
34. When adjusting an anterior stop, the contact area on the mandibular centrals should be where
- lingual surface of centrals
  - facial surface of centrals
  - incisal edge of centrals —
  - contact should allow thin articulating paper to pull between appliance and teeth
35. Cleveland Indians catcher Sandy Alomar's hitting streak ended in Minnesota and was the longest streak in baseball since 1989
- TRUE**
  - False
36. Which of the following characteristics best describes the type of pain found in trigeminal neuralgia?
- Throbbing, pulsing pain
  - Deep, aching pain
  - Diffuse, poorly localized pain
  - Sharp, shooting pain, electric shock-like pain —
  - Deep, burning, pounding pain
37. An anterior repositioning appliance generally is used only when sleeping because
- Extrusion of mandibular teeth —
  - Poor esthetics and phonetics ✗
  - Posterior tooth intrusion —
  - Permanent joint changes —
38. Which muscle is involved in maintaining the appropriate relationship of the disc to the head of the condyle during opening and closing?
- Superficial masseter
  - Superior head of the medial pterygoid
  - Inferior head of the medial pterygoid
  - Superior head of the lateral pterygoid ✓
  - Inferior head of the lateral pterygoid
39. TMD splint therapy is effective in relieving the symptoms of bruxism because if the TMD splint is properly designed, it will eliminate the bruxism.
- True
  - False



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40. What is the most important reason a maxillary stabilization appliance should cover the posterior teeth?

- a. To prevent indentations in the acrylic from locking the mandible in place ✓
- b. With heavy anterior occlusion teeth can wear, fracture, move, become mobile and be symptomatic
- c. Stabilization of teeth to allow patient to "get into" CR
- d. Prevent posterior extrusion
- e. None of the above

41. Reduced activity of the Temporalis and Masseter occurs by elimination of?

- a. Opening very wide and hyperactivity of those muscles
- ☒ b. Elimination of posterior lateral working and non-working contacts
- c. Elimination of posterior contacts
- d. Elimination of anterior contacts in working and non-working contacts
- e. More than one of the above

42. Some studies have shown that soft appliances ("bleaching type" appliances) are acceptable appliances; therefore, these types of appliances can be routinely used for patients that can't tolerate standard stabilization appliances.

- a. First statement is true; second statement is true
- b. First statement is true; second statement is false
- c. First statement is false; second statement is true
- d. First statement is false; second statement is false

T F

43. Which of the following would not be primary site of pain referral to the maxillary posterior teeth

- a. Temporalis ✓
- b. Masseter ✓
- c. Tension-Type Headache ✓
- d. Atypical odontalgia ✓
- e. Sinusitis

Temp  
MA

44. Which of the following would indicate a Temporal Arteritis

- a. Muscle pain, ✓
- b. Fever ✓
- c. Severe headaches
- d. Pain when chewing
- e. disc displacement due to swelling

45. Treatment of TMD is mostly confined to treatment of:

- a. Masticatory Muscles
- b. Temporomandibular joint derangements
- c. Associated Structures
- d. Headaches
- e. All of the Above

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46. FIRST STATEMENT: TMD symptoms can be triggered by mandibular blocks. SECOND STATEMENT: Potential tissues affected are mucosa, buccinator muscle medial Pterygoid muscle, connective tissue, adipose tissue and Sphenomandibular ligament.

- a. FIRST STATEMENT IS TRUE, SECOND STATEMENT IS FALSE
- b. FIRST STATEMENT IS TRUE, SECOND STATEMENT IS TRUE
- c. FIRST STATEMENT IS FALSE, SECOND STATEMENT IS TRUE
- d. FIRST STATEMENT IS FALSE, SECOND STATEMENT IS FALSE

47. Which of the following occlusal problems are not considered primary etiology for TMD patients

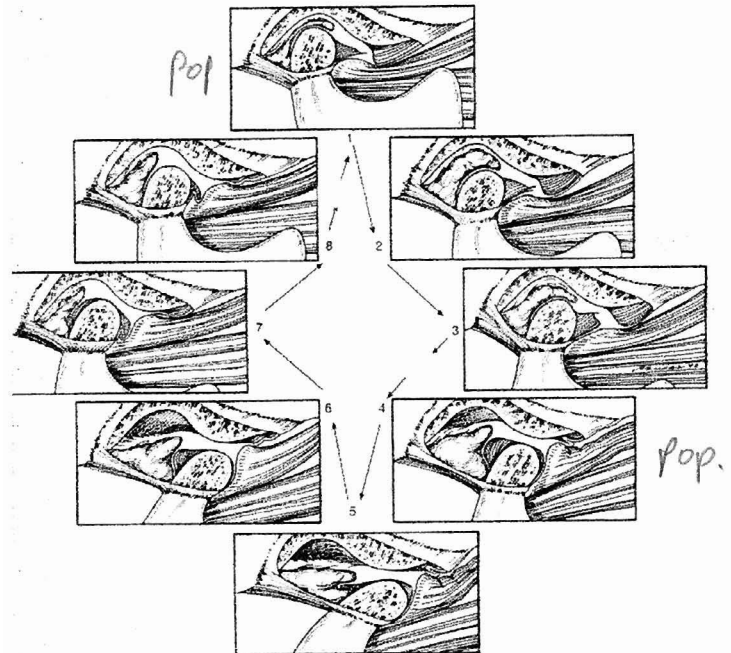
- ✓ a. Class II Division II occlusion
- b. Anterior Open Bite
- ✓ c. Severe Class II Division I occlusion
- Ⓐ d. Unrestored Kennedy I partial denture case replacing all posteriors
- e. Group function with working interferences

48. The diagram on right depicts what type of temporomandibular disorder

- a. Normal TMJ
- b. Disc displacement with reduction ✓
- c. Disc displacement without reduction
- d. Spontaneous dislocation
- e. Closed Lock

49. Joint sounds are very common and not usually associated with pain or decreased joint mobility. TMJ joints usually progress to more severe conditions as the patient ages.

- a. First Statement is False, Second is False
- b. First Statement is False, Second is True
- c. First statement is True, Second is False
- d. First statement is True, Second is True



50. A patient reports to your office with the following chief complaints: clicking of the left and right joint with pain, tenderness to palpation of the right joint. Maximum opening you measure at 55mm, left lateral 9mm and right lateral 10mm. What is your recommended treatment for your patient.

- a. Monitor
- b. Stabilization Appliance ✓
- c. Anterior Repositioning Appliance
- d. Surgical Consultation

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51. After 6 months of treatment of the above patient (question #50), are still in pain, what is your recommended treatment.

- a. Monitor
- b. Stabilization Appliance
- c. Anterior Repositioning Appliance
- d. Surgical Consultation

52. The same patient above (question #50 and #51) is at your office 3 years later with no pain and a maximum opening of 30mm. Your treatment recommendations are

- a. Monitor
- b. Stabilization Appliance
- c. Anterior Repositioning Appliance
- d. Surgical Consultation

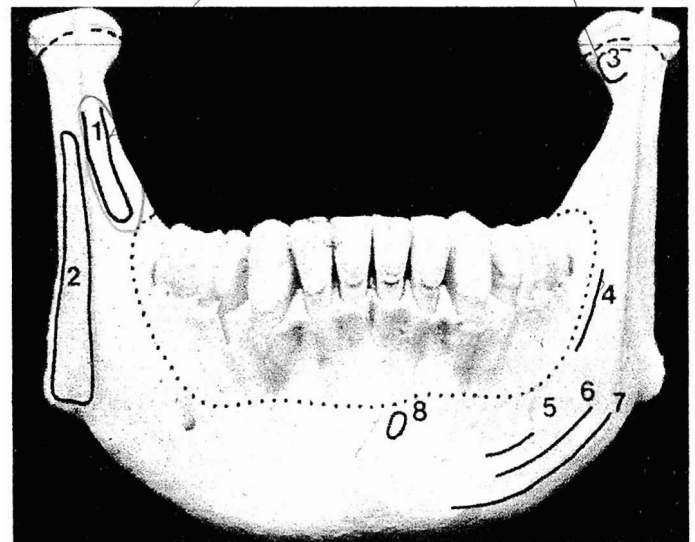
Answer questions 53-57 with the mandible diagram below right

53. Name the muscle that attaches to the mandible at point (1) on the diagram at the right

- a. Later Pterygoid
- b. Buccinator
- c. Masseter
- d. Temporalis
- e. Muscles of facial expression

54. Name the muscle that attaches to the mandible at point (2) on the diagram at the right

- a. Later Pterygoid
- b. Buccinator
- c. Masseter
- d. Temporalis
- e. Muscles of facial expression



55. Name the muscle that attaches to the mandible at point (3) on the diagram at the right

- a. Later Pterygoid
- b. Buccinator
- c. Masseter
- d. Temporalis
- e. Muscles of facial expression

56. Name the muscle that attaches to the mandible at point (4) on the diagram at the right

- a. Later Pterygoid
- b. Buccinator
- c. Masseter
- d. Temporalis
- e. Muscles of facial expression

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57. Name the muscle that attaches to the mandible at point (5,6,7) on the diagram at the right

- a. Later Pterygoid
- b. Buccinator
- c. Masseter
- d. Temporalis
- e. Muscles of facial expression

**58. Clinical Case, Short Answer; Write on the test sheet the appropriate Answers**

You examine your new patient that they report a history of head trauma 14 months ago. Initially both joints were painful, muscle pain in the right side of the face. Patient noticed initial clicking on opening and closing which now is no longer present. Current exam reveals Maximum opening is 38mm, lateral movement from midline is 5mm right and 4 mm left. At one time they state being able to push on their joints to get a pop and then they were able to open normally, but recently they can't open wide. You inquire about their pain now, they say it no longer hurts. You examine their occlusion and find worn insicals of 22,23,24,25,26,27, chipped incisals of 7,8,9,10, flat worn spots that are perfectly flat, ultra smooth and have a shiny appearance. **To answer this question you do not need any more room than the lines provided.**

Diagnosis 14 months ago: Disc displacement with reduction with pain

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Diagnosis: currently: Disc displacement with reduction

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Treatment recommendations 14 months ago at first appointment: Stabilization Appliance

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Current Treatment recommendations: Stabilization Appliance

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