

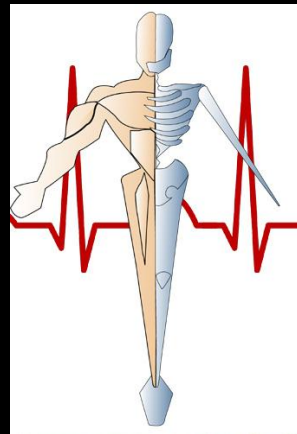
Three Phase CEUs &
SCS Continuing Education Presents:

*Anatomy and Radiography of the
Wrist, Hand, and Fingers* ©

Mastery Test

by

Shane Smith PTA, RT(R), MBA



Please scroll down to proceed.

Forward:

The premise behind the creation of this tutorial is to provide imaging professionals with access to high quality yet affordable continuing education credits (CEUs).

Our Courses qualify as Category A (technical) points for the following: all ARRT recognized imaging modalities, ARRT-CQR, FDOH –Bureau of Radiation Control, NMTCB, and RCIS.

According to the ARRT, a current license as a general radiographer with the FDOH is required to qualify to complete this course.

This rule does not apply to either the NMTCB or RCIS credentials.

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Course Abstract & Objectives:

Course Abstract:

The objective of this course is to provide the learner with a computer-based tutorial that will provide them with the means to learn the radiographic anatomy of the wrist, hand, and fingers. This 60-question mastery test will be employed to ensure that competency of the material has been achieved.

Please scroll down to proceed.

Mastery Test Instructions:

Please place an “X” over the correct response on your answer sheet. If you are unable to print the answer sheet, writing your answers down on a blank sheet a paper is acceptable.

After you complete your answer sheet, snap a picture of it with your cell phone and text it to [Shane Smith at \(727\) 515-9532](tel:7275159532) or email it to ceuarmy@yahoo.com. Please be sure to include your email and FDOH license number.

We will return your certificate of completion to you via email after we receive your payment and answer sheet. A score of 75% or higher is required to successfully pass this course.

Thank you for your support and please reach out via text message if you encounter any issues.

Please scroll down to proceed.

Question #1:

1. The recommended kVp range for radiography of the wrist and hand is between:
 - a) 70-80 kVp
 - b) 30-40 kVp
 - c) 50-65 kVP
 - d) none of the above

Question #1: Review

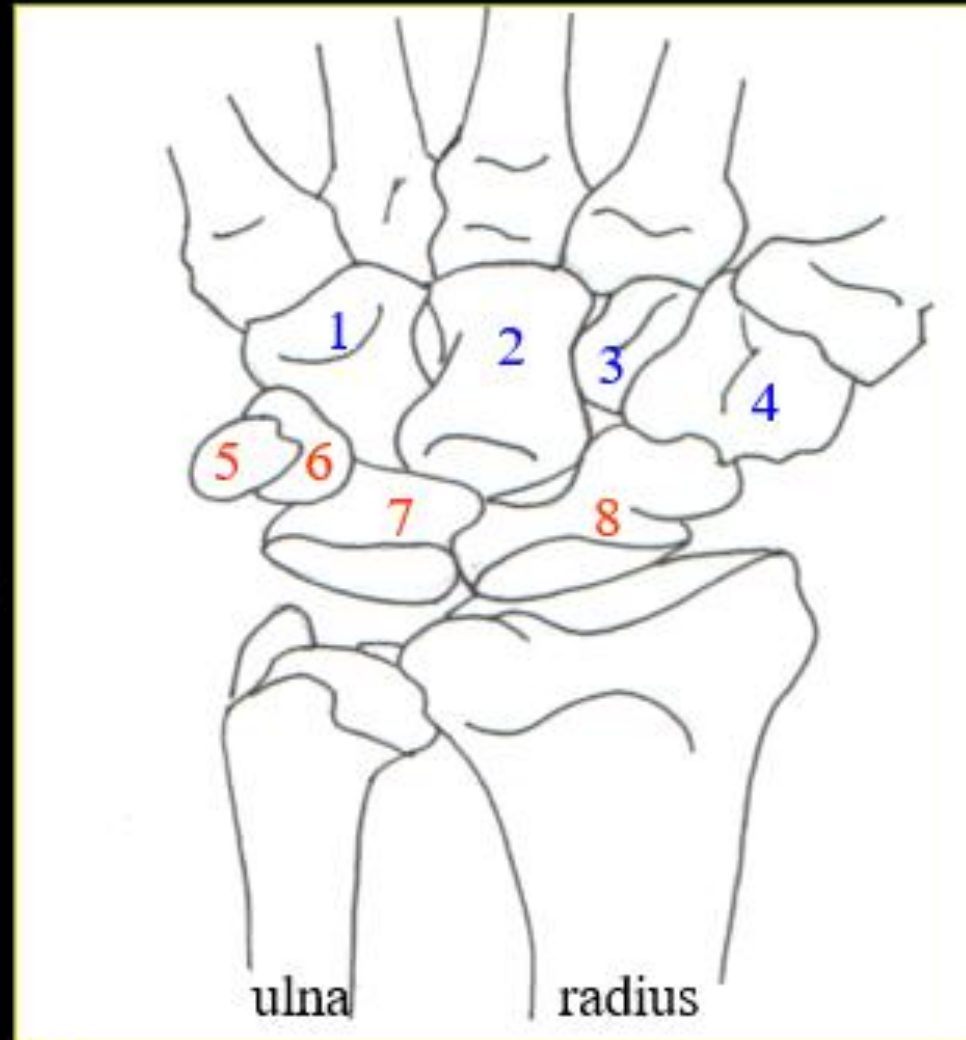
- Radiography of the hand and wrist is done at a **40-inch SID** (source image distance).
- Keep the body part as close to the cassette as possible to reduce **OID** (object image distance).
- Although x-ray machines vary, the general **kVp** ranges for radiography of the wrist and hand is between **50-65 kVp**.
- Adjustments in **kVp** and **MA**s should be considered in cases involving splints, casts, wraps, swelling, braces, etc.
- The body part should be **parallel** to the film; the **central ray** (centering) should be **perpendicular (90°)** to the body part and the film.
- Always **shield** when possible; use **collimation**, identify **LEFT** or **RIGHT** by utilizing lead markers, remove jewelry that may interfere with anatomy and be conscious of patient comfort when positioning.

Question #2:

2. The ulna is considered to be part of the wrist complex.

- a) true
- b) false

Question #2: Review



Note: the ulna is not considered part of the wrist complex and is named for identification purposes only.

Question #3:

3. The carpometacarpal joint of the thumb is considered to be a saddle joint.

- a) true
- b) false

Question #3: Review

Joint	Bones involved	Type
➤ radiocarpal (wrist)	radius and carpals	synovial; ellipsoid
➤ intercarpal	adjacent carpals	synovial; gliding
➤ carpometacarpal (digits 2-5)	carpals and metacarpals	synovial; gliding
➤ carpometacarpal (thumb)	trapezium and 1st metacarpal	synovial; saddle
➤ metacarpophalangeal	metacarpal and proximal phalanx	synovial; gliding
➤ interphalangeal	adjacent phalanges	synovial; hinge

Question #4:

4. The nerve that passes through the carpal tunnel is:

- a) radial
- b) sciatic
- c) ulnar
- d) median

Question #4: Review

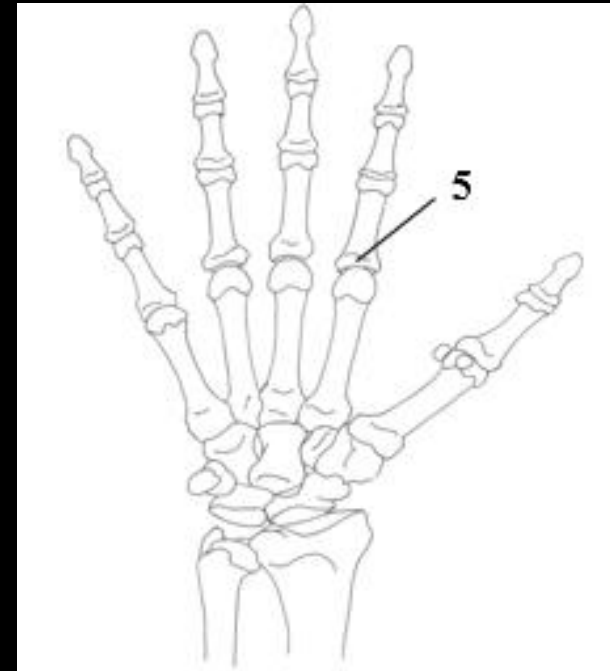
4. Carpal Tunnel Syndrome

- compression of the **median nerve** between the flexor tendons and the transverse carpal ligament; primarily found in patients with history of prolonged (repetitive) manual work with hands (specifically wrist flexion)
which puts pressure on the flexor retinaculum; results in pain and/or numbness which may radiate up arm
- Phalen's Test: hold wrist hyperflexion x 1 minute; positive test if sensation changes result
- Tinel's Sign: tap flexor retinaculum; results in tingling sensation if median nerve is compressed
- Rx: rest, temporary splinting, surgery, NSAIDs, iontophoresis, ice, heat

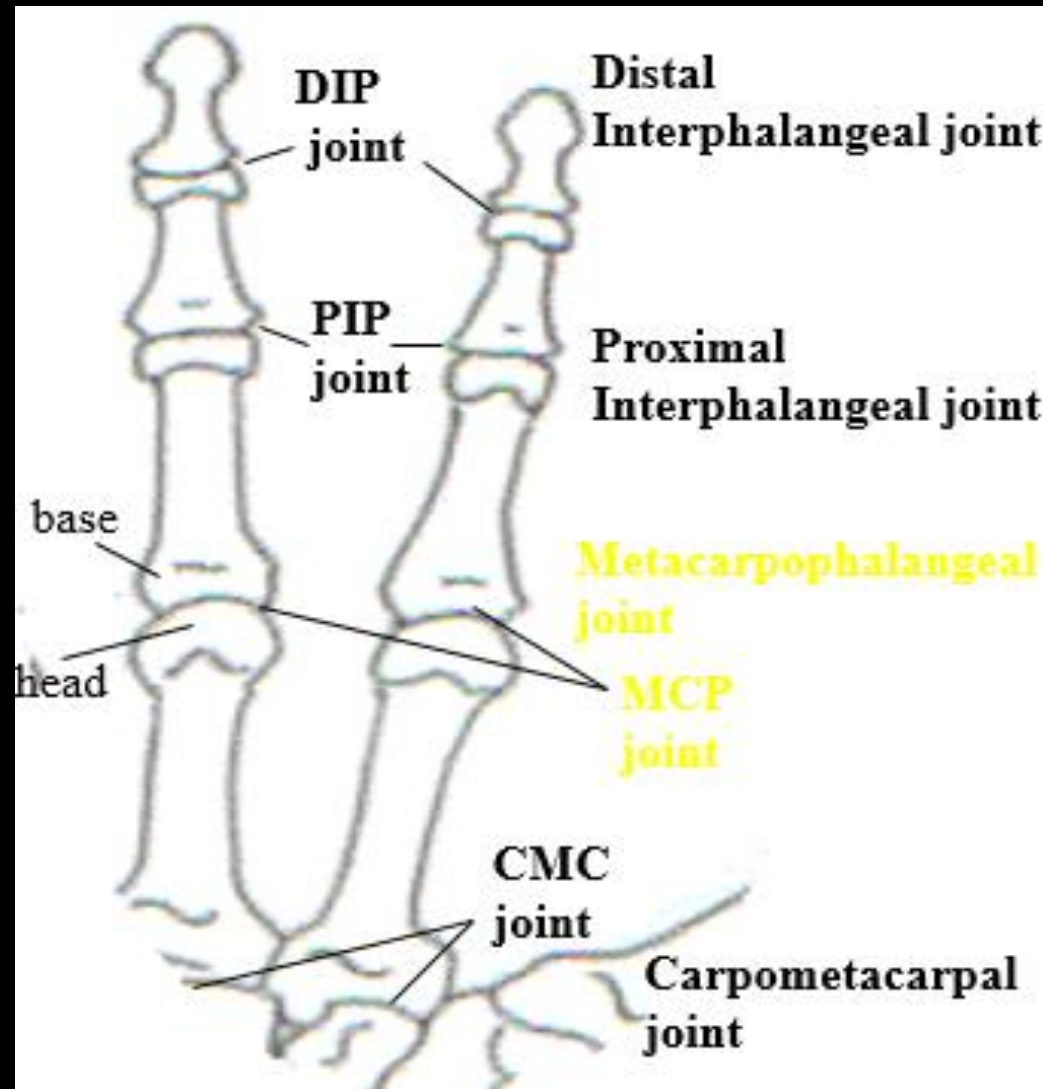
Question #5:

Use the diagram to the right to answer 5.:

- a) MCP joint
- b) head of distal phalanx
- c) navicular (scaphoid)
- d) CMC joint



Question #5: Review



Question #6:

6. Pollicis refers to the:

- a) thumb
- b) capitate
- c) little finger
- d) radius

Question #6: **Review**

Phalanges:

Digits 2-5 have a proximal, middle and distal phalanx. The **thumb** (**pollicis**) does not consist of a middle phalanx, however, it does have two **sesamoid** bones.

Question #7:

7. It is not necessary to make adjustments in technique to compensate for casts.

- a) true
- b) false

Question #7: Review

- Radiography of the hand and wrist is done at a **40-inch SID** (source image distance).
- Keep the body part as close to the cassette as possible to reduce **OID** (object image distance).
- Although x-ray machines vary, the general **kVp** ranges for radiography of the wrist and hand is between **50-65 kVp**.
- **Adjustments in kVp and MAs should be considered in cases involving splints, casts, wraps, swelling, braces, etc.**
- The body part should be **parallel** to the film; the **central ray** (centering) should be **perpendicular (90°)** to the body part and the film.
- Always **shield** when possible; use **collimation**, identify **LEFT** or **RIGHT** by utilizing lead markers, remove jewelry that may interfere with anatomy and be conscious of patient comfort when positioning.

Question #8:

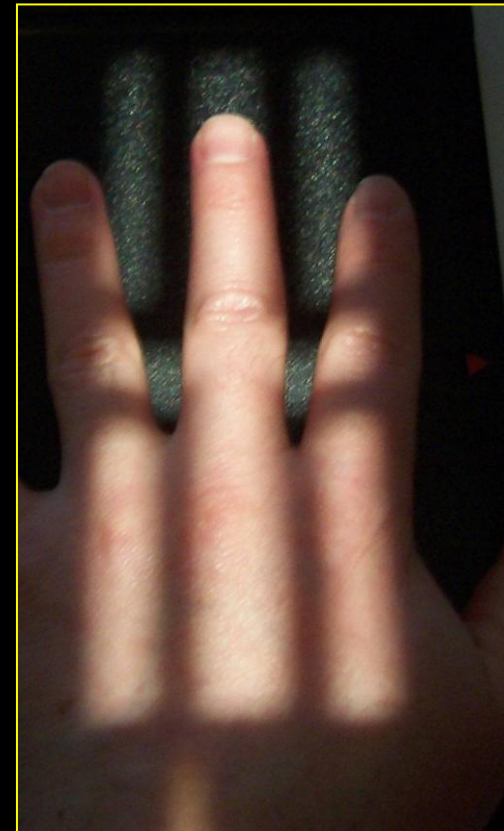
8. The centering point for an x-ray of a PA finger is:

- a) MCP joint
- b) DIP joint
- c) CMC joint
- d) PIP joint

Question #8: Review

PA finger:

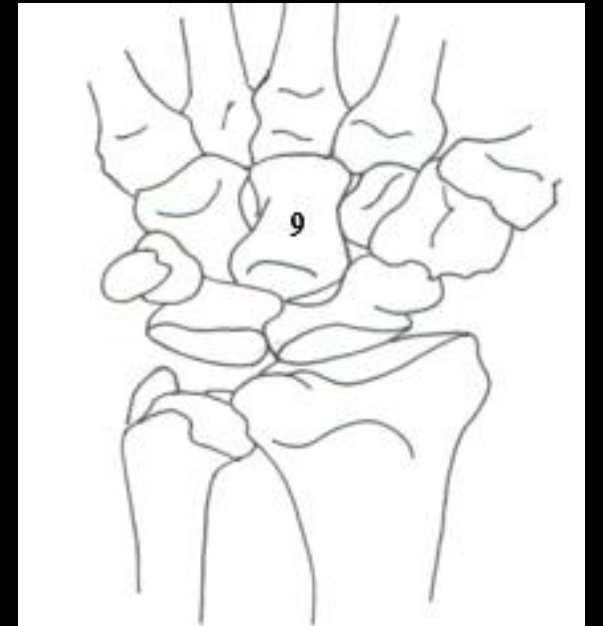
- Place hand palm down onto the cassette.
- Center to the **PIP** joint.



Question #9:

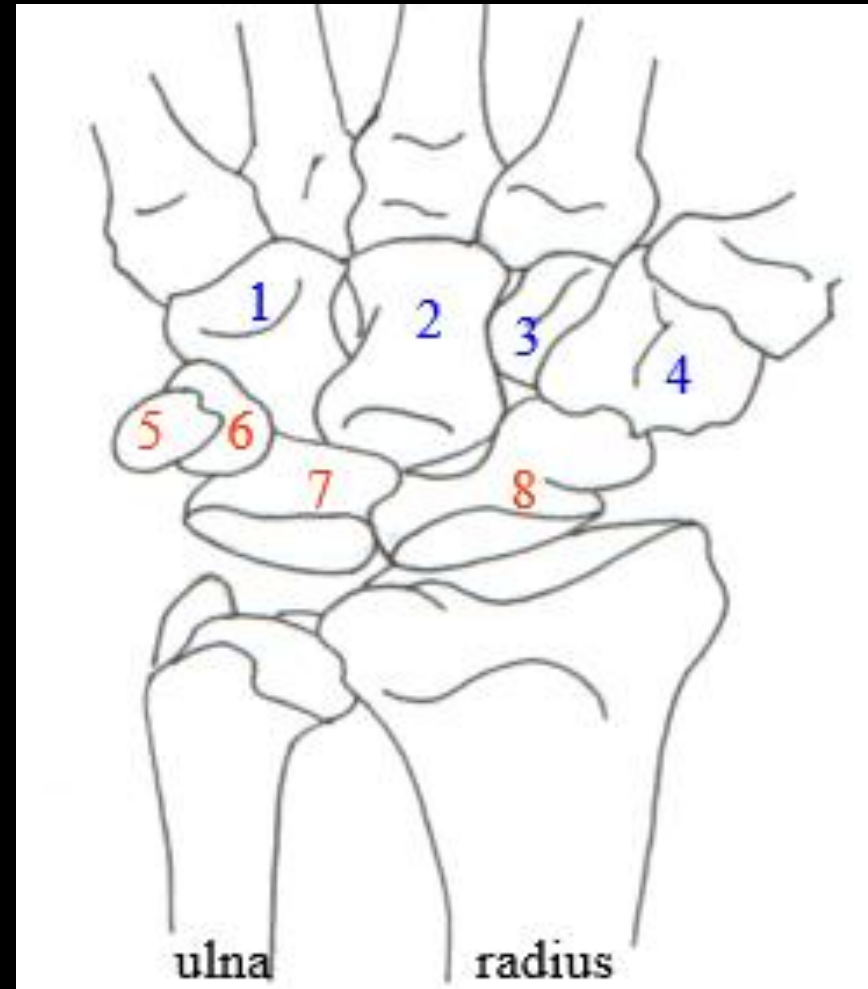
9. Name the carpal bone marked on the diagram to the right.

- a) lunate
- b) navicular
- c) capitate
- d) trapezoid



Question #9: Review

1. Hamate (unciform)
2. **Capitate** (os magnum)
3. Trapezoid (lesser multangular)
4. Trapezium (greater multangular)
5. Pisiform
6. Triquetral (triquetrum)
7. Lunate (semilunar)
8. Scaphoid (navicular)



Question #10:

10. The angle at which a PA hand is placed in order to obtain an oblique view is:

- a) 15°
- b) 45°
- c) 60°
- d) all of the above are acceptable

Question #10: Review

PA Oblique hand:

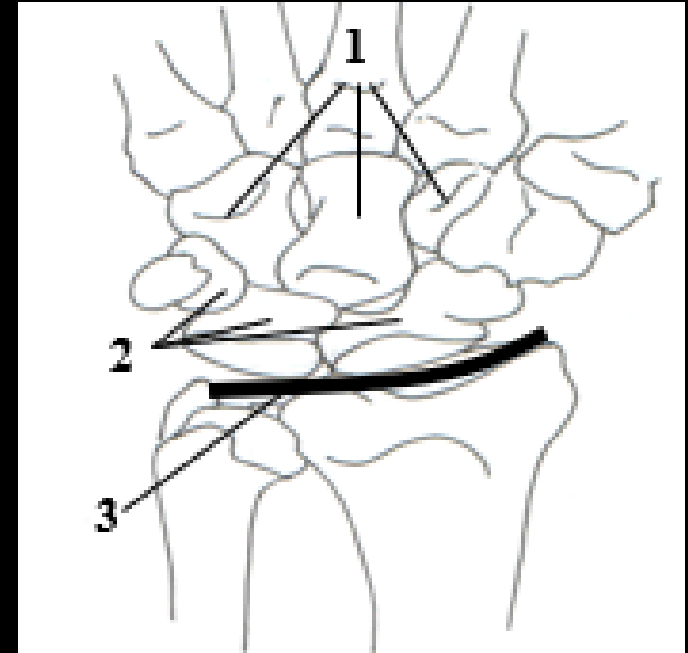
- Place pronated hand onto the cassette at a **45° angle**.
- Center at the 3rd MP joint.



Question #11:

11. Which of the choices below would correctly label the diagram to the right.

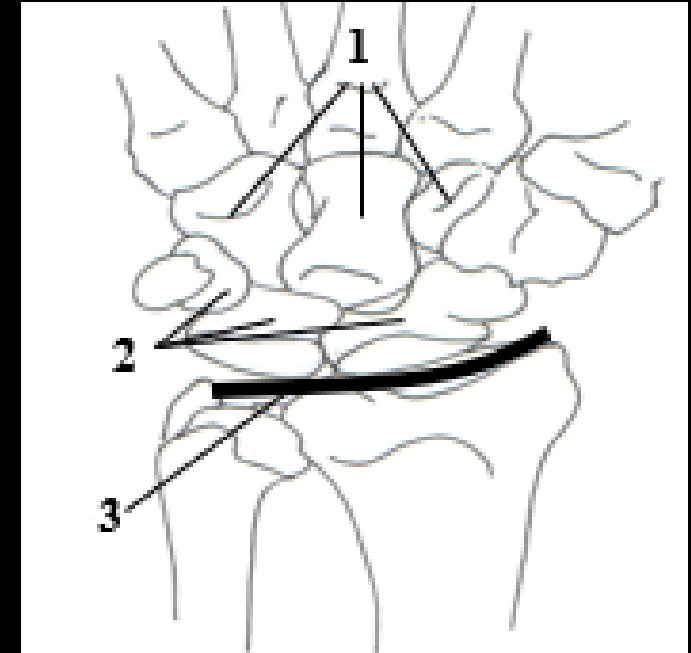
- a) 1. proximal row 2. distal row 3. radioulnar disc
- b) 1. distal row 2. proximal row 3. radioulnar disc



Question #11: Review

11. Which of the choices below would correctly label the diagram to the right.

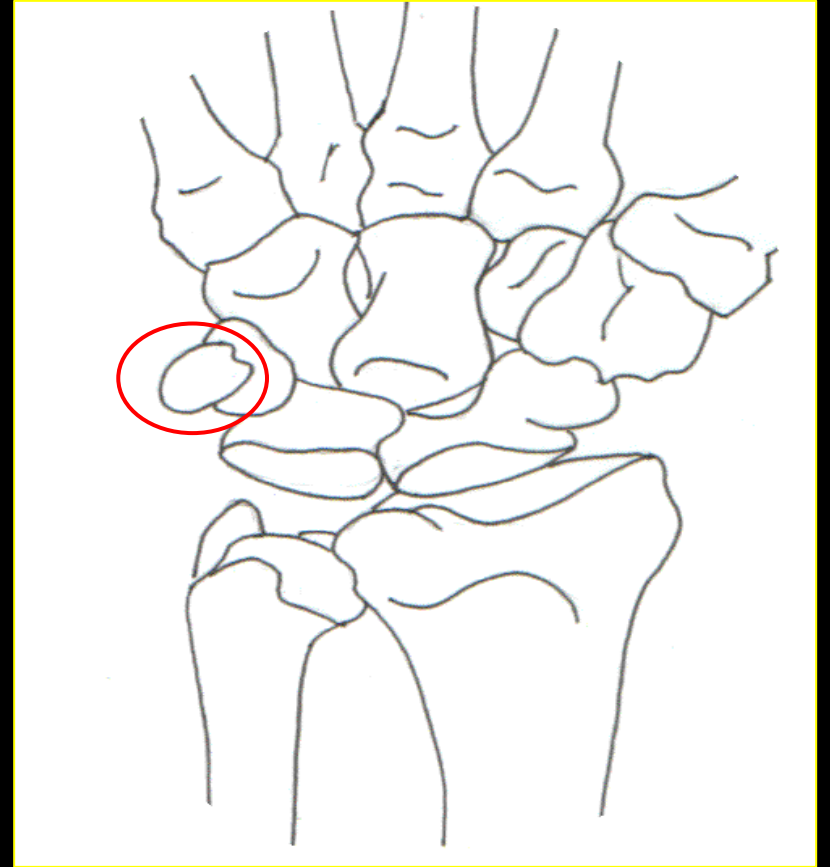
- a) 1. proximal row 2. distal row 3. radioulnar disc
- b) 1. distal row 2. proximal row 3. radioulnar disc**



Question #12:

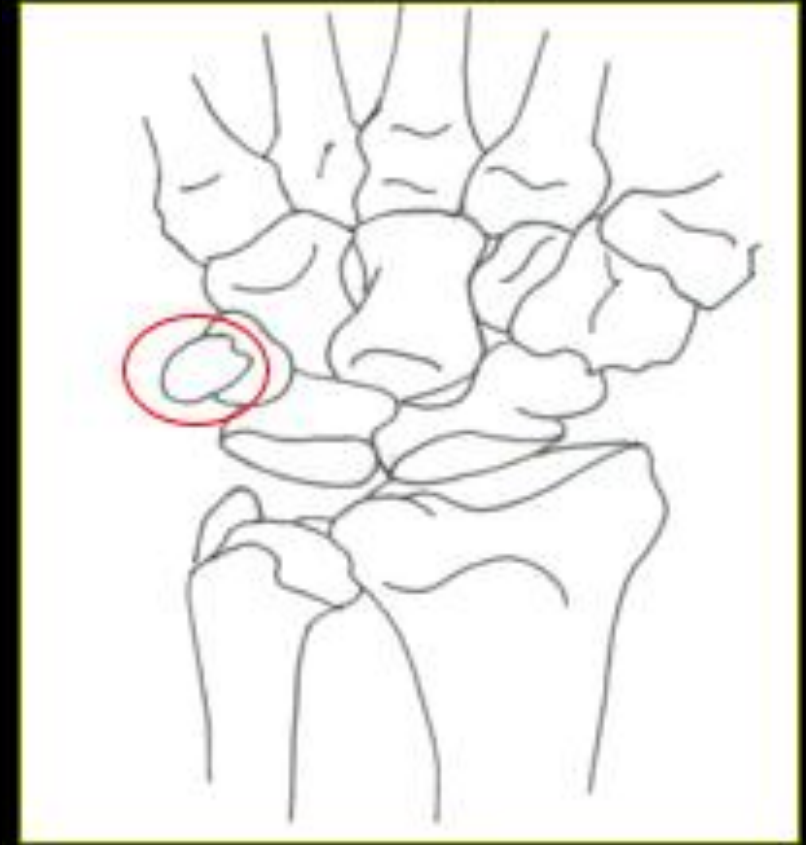
12. With the right hand in anatomical position, the pisiform is located:

- a) medial
- b) lateral
- c) midline



Question #12: Review

The pisiform is **medial** in anatomical position.



Question #13:

13. The interphalangeal joints are described as:

- a) synovial
- b) gliding
- c) hinge
- d) a and c

Question #13: Review

Joint	Bones involved	Type
➤ radiocarpal (wrist)	radius and carpals	synovial; ellipsoid
➤ intercarpal	adjacent carpals	synovial; gliding
➤ carpometacarpal (digits 2-5)	carpals and metacarpals	synovial; gliding
➤ carpometacarpal (thumb)	trapezium and 1st metacarpal	synovial; saddle
➤ metacarpophalangeal	metacarpal and proximal phalanx	synovial; gliding
➤ interphalangeal	adjacent phalanges	synovial; hinge

Question #14:

14. The wrist is considered to be a biaxial joint.

- a) true
- b) false

Question #14: Review

Joint	Bones involved	Type
➤ radiocarpal (wrist)	radius and carpals	synovial; ellipsoid
➤ intercarpal	adjacent carpals	synovial; gliding
➤ carpometacarpal (digits 2-5)	carpals and metacarpals	synovial; gliding
➤ carpometacarpal (thumb)	trapezium and 1st metacarpal	synovial; saddle
➤ metacarpophalangeal	metacarpal and proximal phalanx	synovial; gliding
➤ interphalangeal	adjacent phalanges	synovial; hinge

Question #15:

15. In a rested position, the palm of the hand is:

- a) convex
- b) concave
- c) flat
- d) twisted

Question #15: Review

In a rested position, the palm of the hand is **concave**. The thumb is located **90°** to the fingers and is of particular importance to the dexterity of the hand.

Question #16:

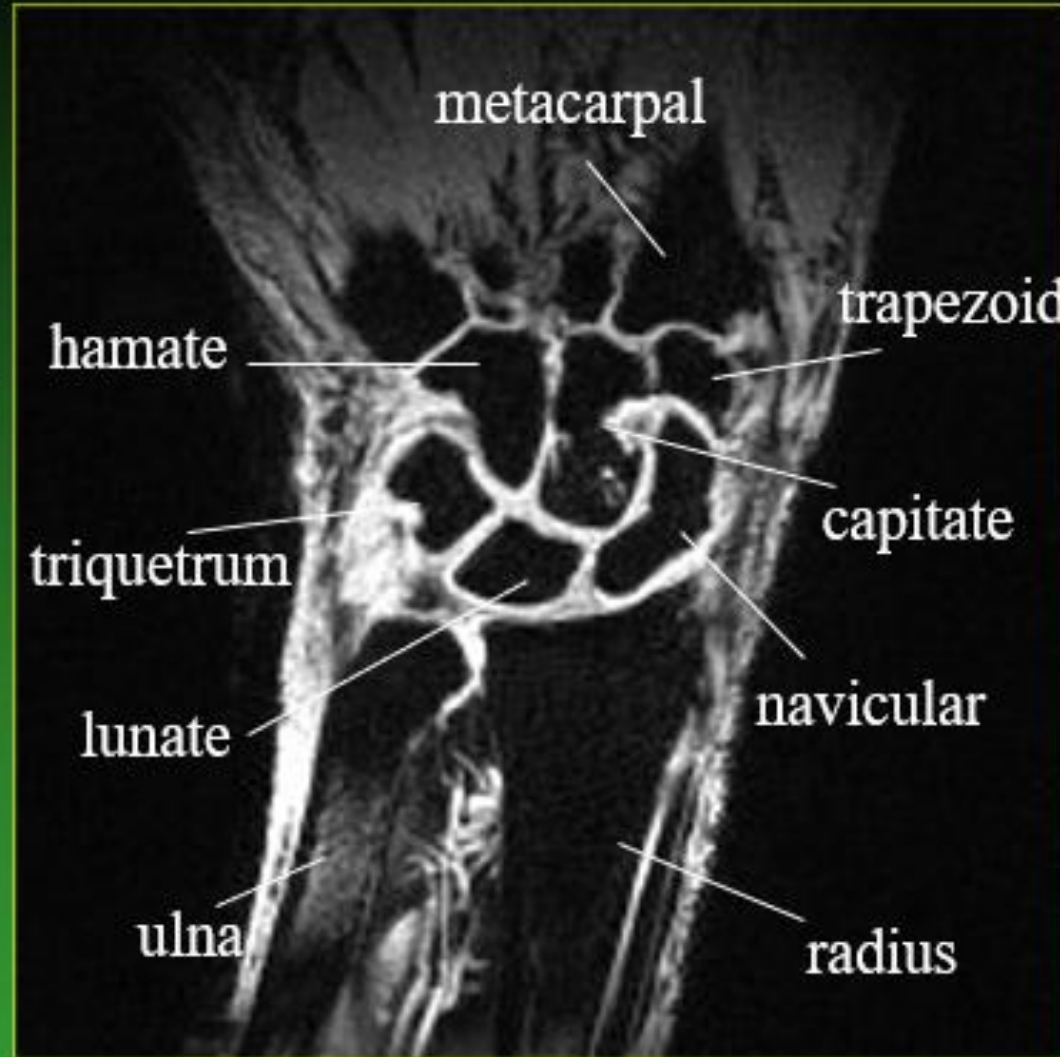
16. A coronal slice of the wrist in MRI is comparable to what view of the wrist in radiography?

- a) lateral
- b) oblique
- c) PA
- d) none of the above

Question #16: Review

MRI Coronal T2

The coronal view of the wrist in MRI is comparable to the PA view of the wrist in x-ray. The image to the right is one slice of a coronal sequence.



Question #17:

17. MRI primarily affects _____ in the body.

- a) calcium
- b) oxygen
- c) hydrogen
- d) potassium

Question #17: **Review**

The magnetic field primarily affects tissues with an adequate amount of **hydrogen**. A high concentration of hydrogen will produce a strong signal and a bright area on the image while a low concentration will produce little or no signal. No signal will produce a black area with the signals in between producing gray areas, **contrast**.

Question #18:

18. What is the name of the bone labeled on the image?

- a) capitate
- b) lunate
- c) trapezoid
- d) pisiform



Question #18: Review



Question #19:

19. A x-ray of the navicular requires:

- a) ulnar deviation of the wrist and a 10° - 15° tube angle toward the fingers
- b) radial deviation of the wrist and a 10° - 15° tube angle toward the elbow
- c) radial deviation of the wrist and a 10° - 15° tube angle toward the fingers
- d) ulnar deviation of the wrist and a 10° - 15° tube angle toward the elbow

Question #19: Review

PA Navicular:

- Place hand onto the cassette palm down with wrist in ulnar deviation (flexion toward ulnar side).
- Angle tube 10° - 15° toward the elbow.
- Center at the navicular (scaphoid).

Question #20:

20. A pronated hand describes a hand that is palm up.

- a) true
- b) false

Question #20: Review

PA hand:

- Place pronated hand (palm down) onto the cassette.
- Center at the 3rd MP joint.

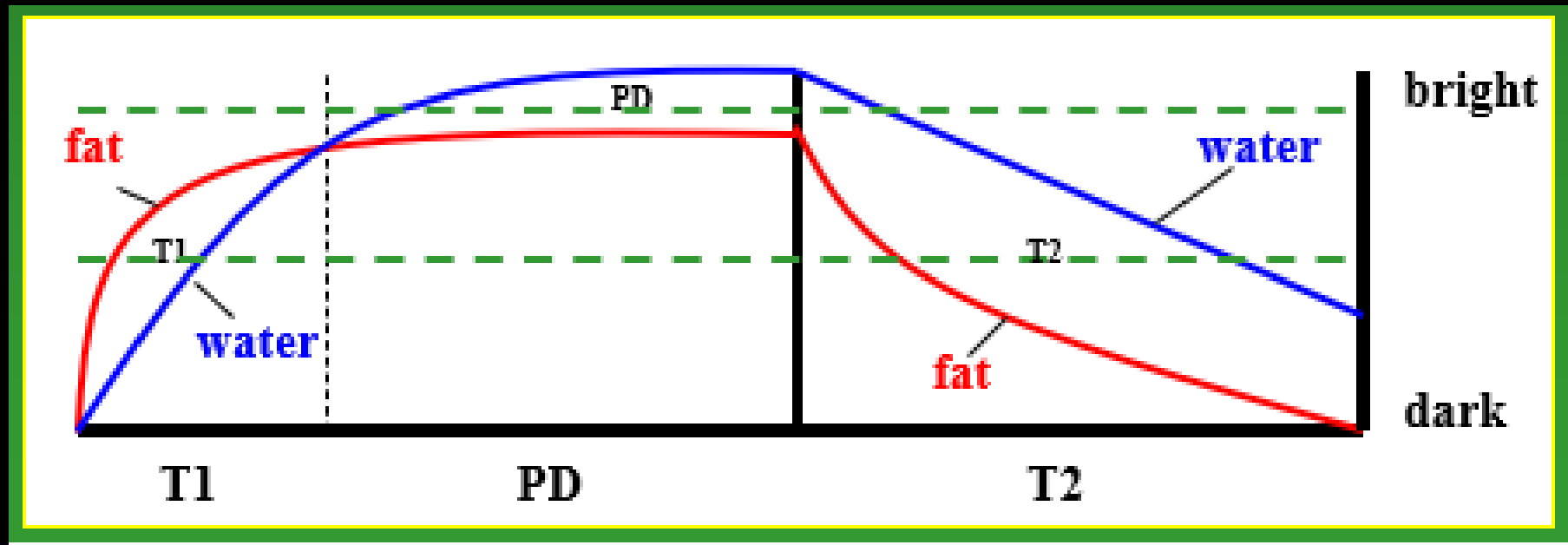
Question #21:

21. On a T2 weighted image, fat is _____ and water is _____.

- a) bright; dark
- b) dark; bright
- c) dark; dark
- d) bright; bright

Question #21: Review

T2: on a T2 weighted image, water is bright and fat is dark, but the contrast is greater.



Question #22:

22. When the body part being radiographed can make contact with the cassette, the recommended SID for the hand is:

- a) 72 inches
- b) 48 inches
- c) 40 inches
- d) none of the above

Question #22: **Review**

Radiography of the hand and wrist is done at a **40-inch SID** (source image distance).

Question #23:

23. The “fan” lateral x-ray of the hand is recommended due to less overlap of the fingers.

- a) true
- b) false

Question #23: Review

Lateral hand:

- If possible, place hand in a “fan” lateral position (recommended) onto the cassette.
- Center at the 2nd MP joint.
- Include the entire hand and distal radius and ulna.

Question #24:

24. Carpal Tunnel Syndrome is a condition caused by compression of which nerve:

- a) radial
- b) sciatic
- c) ulnar
- d) median

Question #24: Review

Carpal Tunnel Syndrome

- compression of the **median** nerve between the flexor tendons and the transverse carpal ligament; primarily found in patients with history of prolonged (repetitive) manual work with hands (specifically wrist flexion) which puts pressure on the flexor retinaculum; results in pain and/or numbness which may radiate up arm
- Phalen's Test: hold wrist hyperflexion x 1 minute; positive test if sensation changes result
- Tinel's Sign: tap flexor retinaculum; results in tingling sensation if median nerve is compressed
- Rx: rest, temporary splinting, surgery, NSAIDs, iontophoresis, ice, heat

Question #25:

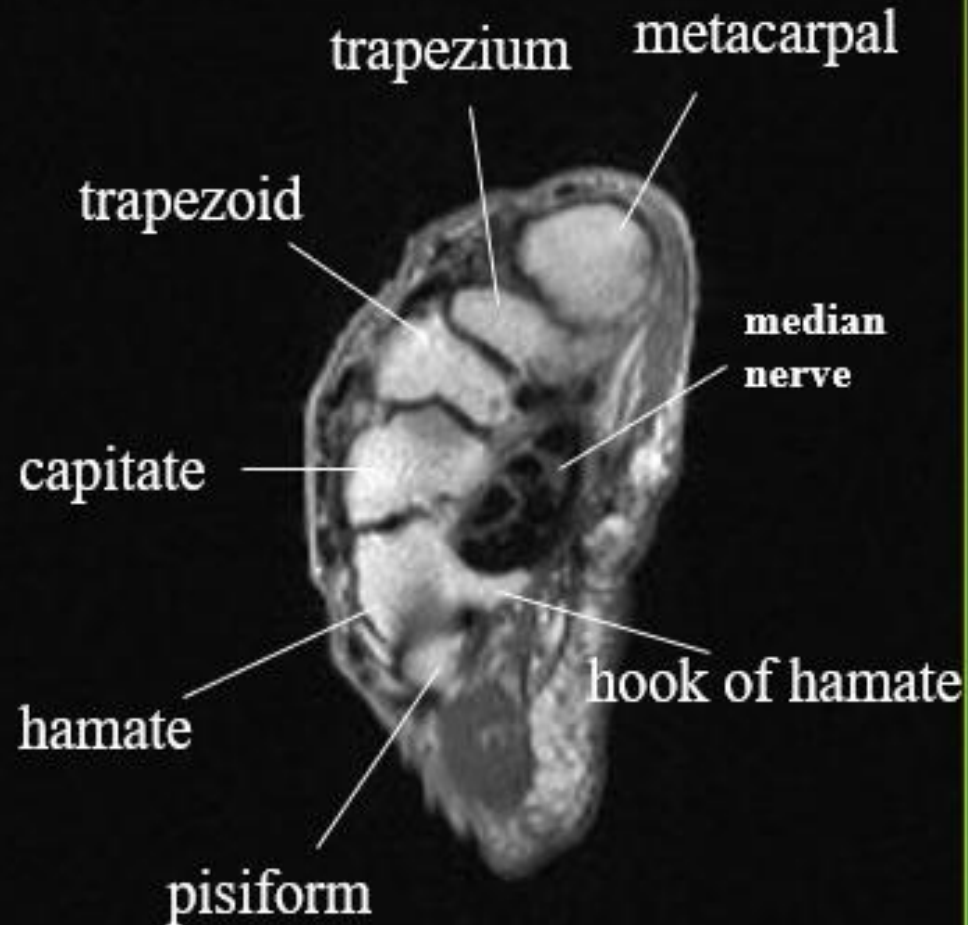
25. Which MRI image is best described as a slice from a loaf of bread?

- a) coronal
- b) sagittal
- c) axial
- d) a and b

Question #25: Review

Axial PD T2

The axial view of the wrist in MRI has no comparable view in x-ray. The axial slice is similar to slices in a loaf of bread. The image to the right is one slice of an axial sequence.



Question #26:

26. Functional position of the wrist complex consists of:

- a) 50° extension and 25° ulnar deviation
- b) 20° extension and 10° ulnar deviation
- c) 10° extension and 5° radial deviation
- d) 30° flexion and 10° radial deviation

Question #26: Review

Functional position of the wrist and hand has been determined to be:

- **wrist complex:** 20° extension and 10° ulnar deviation
- **MCP joint:** 45° flexion
- **PIP joint:** 30° flexion
- **DIP joint:** slight flexion

Question #27:

27. The entire metacarpal should be included in a radiograph of the finger.

- a) true
- b) false

Question #27: Review

PA finger:

- Place hand palm down onto the cassette.
- Center to the PIP joint.
- Include the entire finger and distal third of metacarpal.

Question #28:

28. Collimation should be at minimum:

- a) the cassette size
- b) $\frac{1}{4}$ inch outside of the cassette
- c) both are acceptable
- d) neither are acceptable

Question #28: **Review**

General Guidelines

- ✓ use **collimation**; at minimum, collimation should not exceed the cassette size.

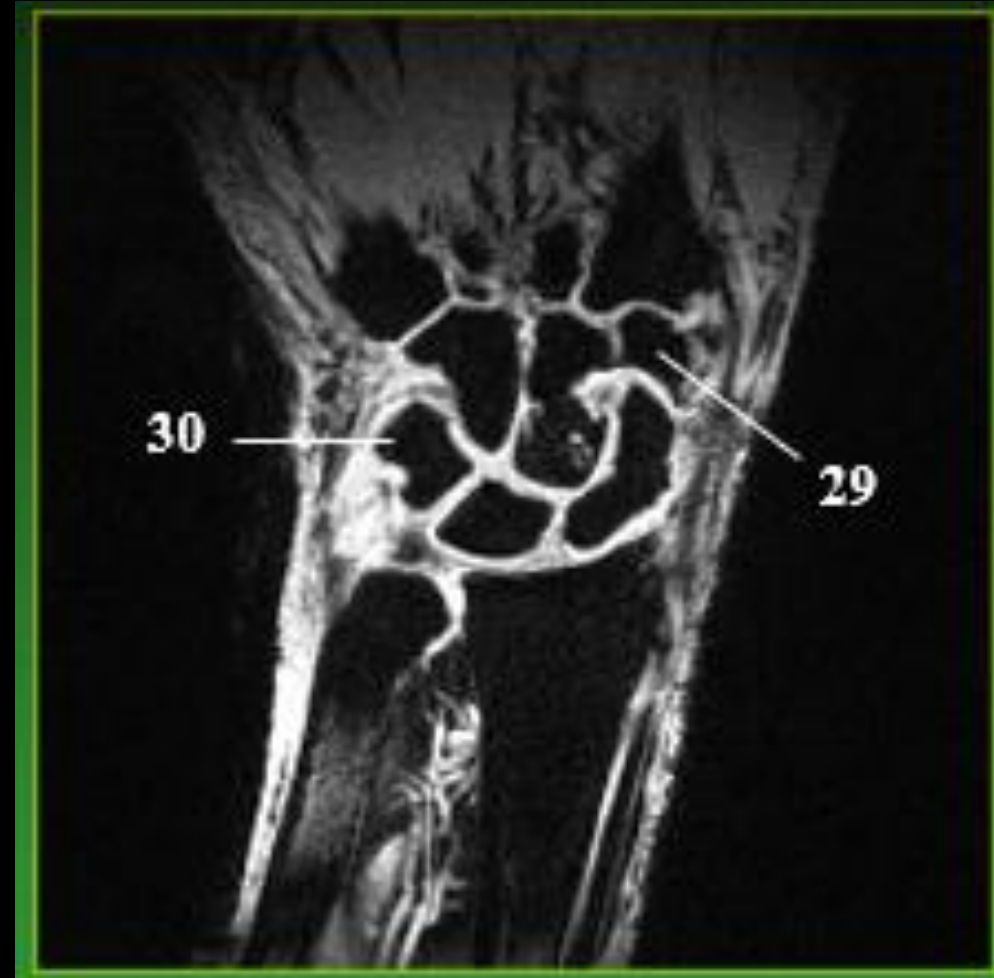
Question #29 and 30:

29. The name of this bone is:

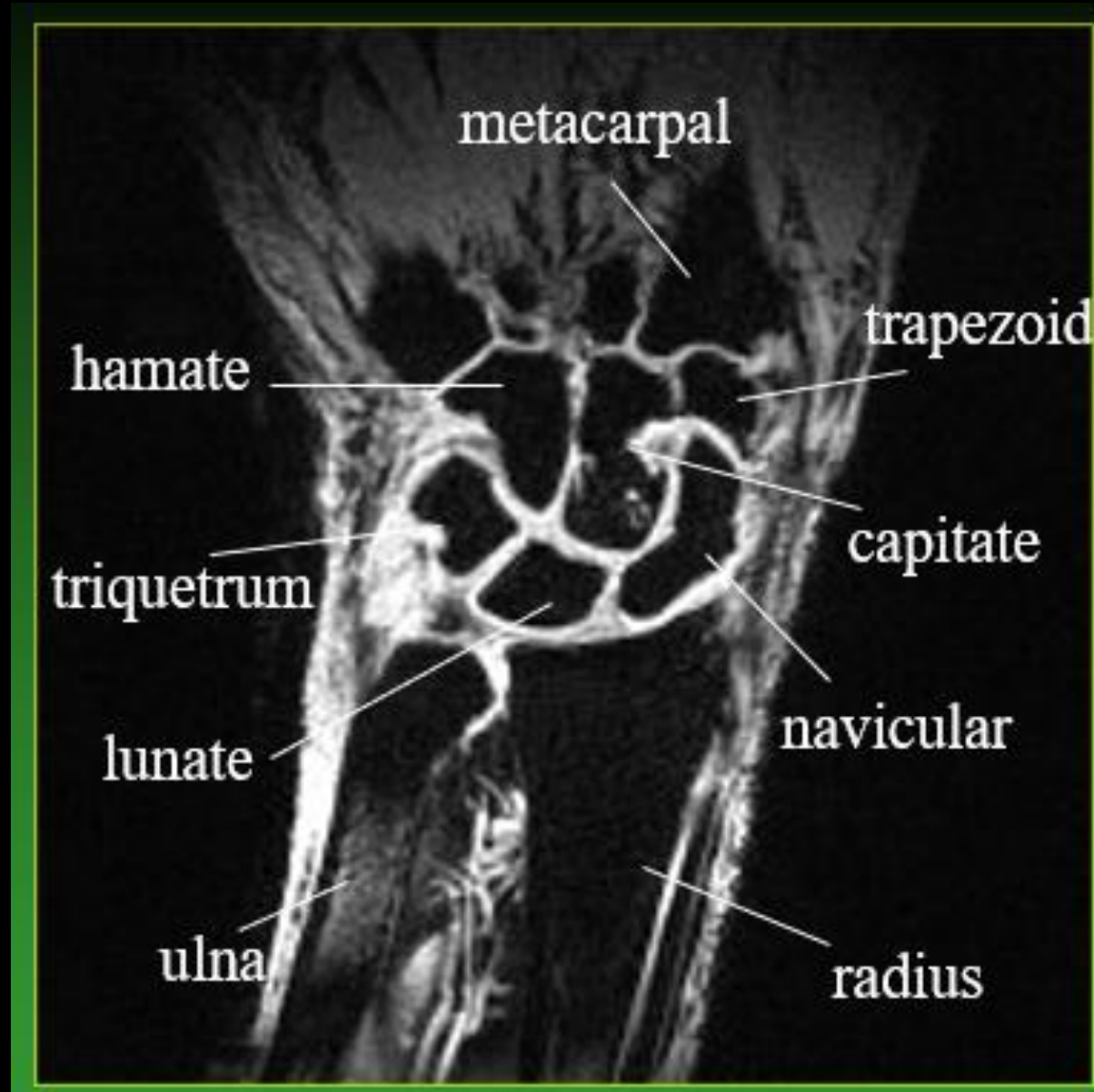
- a) navicular
- b) scaphoid
- c) pisiform
- d) trapezoid

30. The name of this bone is:

- a) lunate
- b) pisiform
- c) triquetrum
- d) hamate



Question #29 and 30: Review



Question #31 - 34:

31. The names of these bones are:

- a) proximal and distal phalanges
- b) middle and distal phalanges
- c) middle and proximal phalanges

32. The names of these joints are:

- a) MCP and DIP joints
- b) PIP and MCP joints
- c) PIP and DIP joints

33. The names of these bones are:

- a) proximal phalanx and metacarpal
- b) metacarpal and distal phalanx
- c) middle and proximal phalanges

34. The names of these joints are:

- a) MCP and PIP joints
- b) CMC and MCP joints
- c) CMC and PIP joints



Question #31 - 34: Review

Let's review the bones of the left hand x-ray in this PA position:

Metacarpals:

There are 5 metacarpals in the hand.

Phalanges:

Digits 2-5 have a proximal, middle and distal phalanx. The thumb (**pollicis**) does not consist of a middle phalanx, however, it does have two **sesamoid** bones.

- Both the Metacarpal and Phalanx have articulating surfaces; the **head** distally and the **base** proximally.



Question #35:

35. A PA wrist x-ray should include the entire metacarpal.

- a) true
- b) false

Question #35: Review

PA wrist:

- Place hand and wrist onto the cassette palm down.
- Center at the midcarpal area of the wrist.
- Include the distal radius and ulna, carpals and $\frac{1}{2}$ of the metacarpals.

Question #36:

36. A synovial joint has a fibrous capsule, synovial fluid and articular cartilage.

- a) true
- b) false

Question #36: **Review**

A **synovial joint**: diarthrotic; allows one or more types of free movement; contain articular cartilage, synovial fluid, synovial membrane and a fibrous capsule.

Question #37:

37. To obtain proper positioning for an AP thumb, the hand must be:

- a) extended
- b) flexed
- c) externally rotated
- d) internally rotated

Question #37: Review

AP thumb:

- Internally rotate hand until the back of the thumb can be placed onto the cassette.
- Center at the 1st MP joint.
- Include the entire thumb, CMC joint and trapezium.

Question #38:

38. A mediolateral projection is used on which finger?

- a) 3rd (middle)
- b) thumb
- c) 2nd (index)
- d) 5th (little)

Question #38: Review

Lateral finger:

- A mediolateral projection is utilized for the 2nd finger.
- Place finger onto the cassette from a thumb-down lateral position.
- A lateromedial projection is utilized for the 3rd, 4th and 5th fingers.
- Place finger parallel to the cassette from a thumb-up lateral position.
- Center to the PIP joint.
- Include the entire finger and MCP joint.

Question #39:

39. A sagittal image in MRI can be compared to the _____ view in radiography.

- a) AP
- b) lateral
- c) PA
- d) oblique

Question #39: Review

Sagittal T1

The sagittal view of the wrist in MRI is comparable to the lateral view of the wrist in x-ray. The image to the right is one slice of a sagittal sequence.



Question #40:

40. The DIP joint is a:

- a) saddle joint
- b) ball and socket joint
- c) hinge joint
- d) more than one but not all of the above

Question #40: Review

Joint	Bones involved	Type
➤ radiocarpal (wrist)	radius and carpals	synovial; ellipsoid
➤ intercarpal	adjacent carpals	synovial; gliding
➤ carpometacarpal (digits 2-5)	carpals and metacarpals	synovial; gliding
➤ carpometacarpal (thumb)	trapezium and 1st metacarpal	synovial; saddle
➤ metacarpophalangeal	metacarpal and proximal phalanx	synovial; gliding
➤ interphalangeal	adjacent phalanges	synovial; hinge

Question #41:

41. A fracture occurring at the distal radius is known as:

- a) Pott's fracture
- b) greenstick fracture
- c) Mitola's fracture
- d) Colles' fracture

Question #41: Review

Colles' Fracture

- a fall on an outstretched hand produces a supinating force on the wrist as the forearm pronates under the weight of the body; results in a transverse fracture of the distal radius with a displacement of the hand backward and outward; this combination produces a dinner fork deformity
- Rx: ice (swelling), splint, cast (closed reduction) or pins (external fixation)

Question #42:

42. A Swan Neck Deformity would be best described as a:

- a) hyperextension of the DIP joint and flexion of the PIP joint
- b) flexion of the MCP joint and flexion of the DIP joint
- c) hyperextension of the PIP joint and flexion of the DIP joint
- d) all of the above are true

Question #42: Review

Swan Neck Deformity

-hyperextension of the PIP joint and flexion of the DIP joint as a result of damage (frequently from rheumatoid arthritis) that causes hypermobility of the PIP joints and a migration of the lateral bands dorsally; results in a loss of the normal balance of forces around the PIP joint; may result in interossei muscles to become taunt

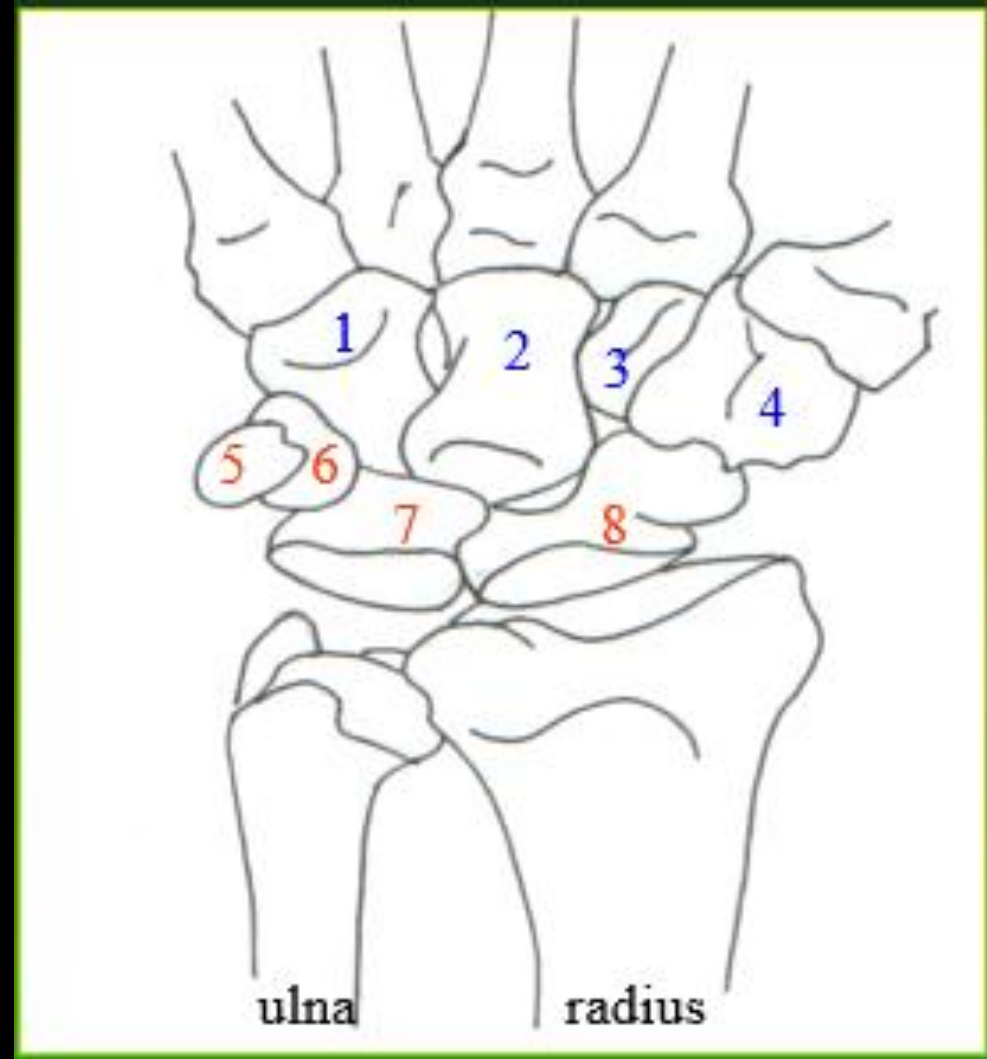
Question #43:

43. The capitate contacts all of the following except:

- a) triquetrum
- b) navicular
- c) hamate
- d) lunate

Question #43: Review

1. Hamate (unciform)
2. Capitate (os magnum)
3. Trapezoid (lesser multangular)
4. Trapezium (greater multangular)
5. Pisiform
6. Triquetral (triquetrum)
7. Lunate (semilunar)
8. Scaphoid (navicular)



Question #44:

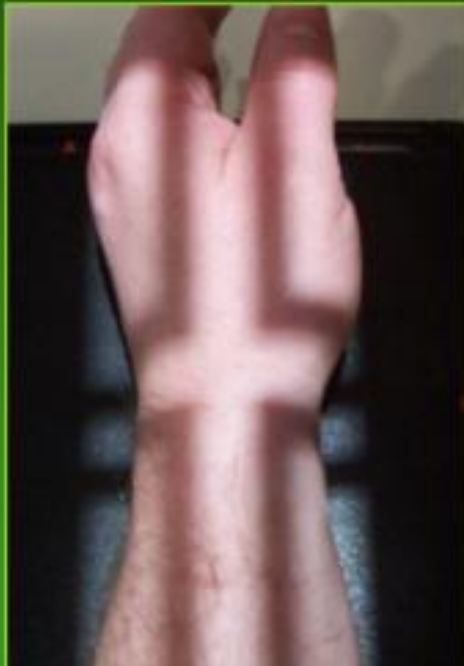
44. A true lateral position of the wrist would show the distal radius and distal ulna superimposed.

- a) true
- b) false

Question #44: Review

Lateral wrist:

- Place the wrist onto the cassette in a lateral (thumb up) position.
- Center at the midcarpal area of the wrist.
- Include the distal radius and ulna, carpals and $\frac{1}{2}$ of the metacarpals.



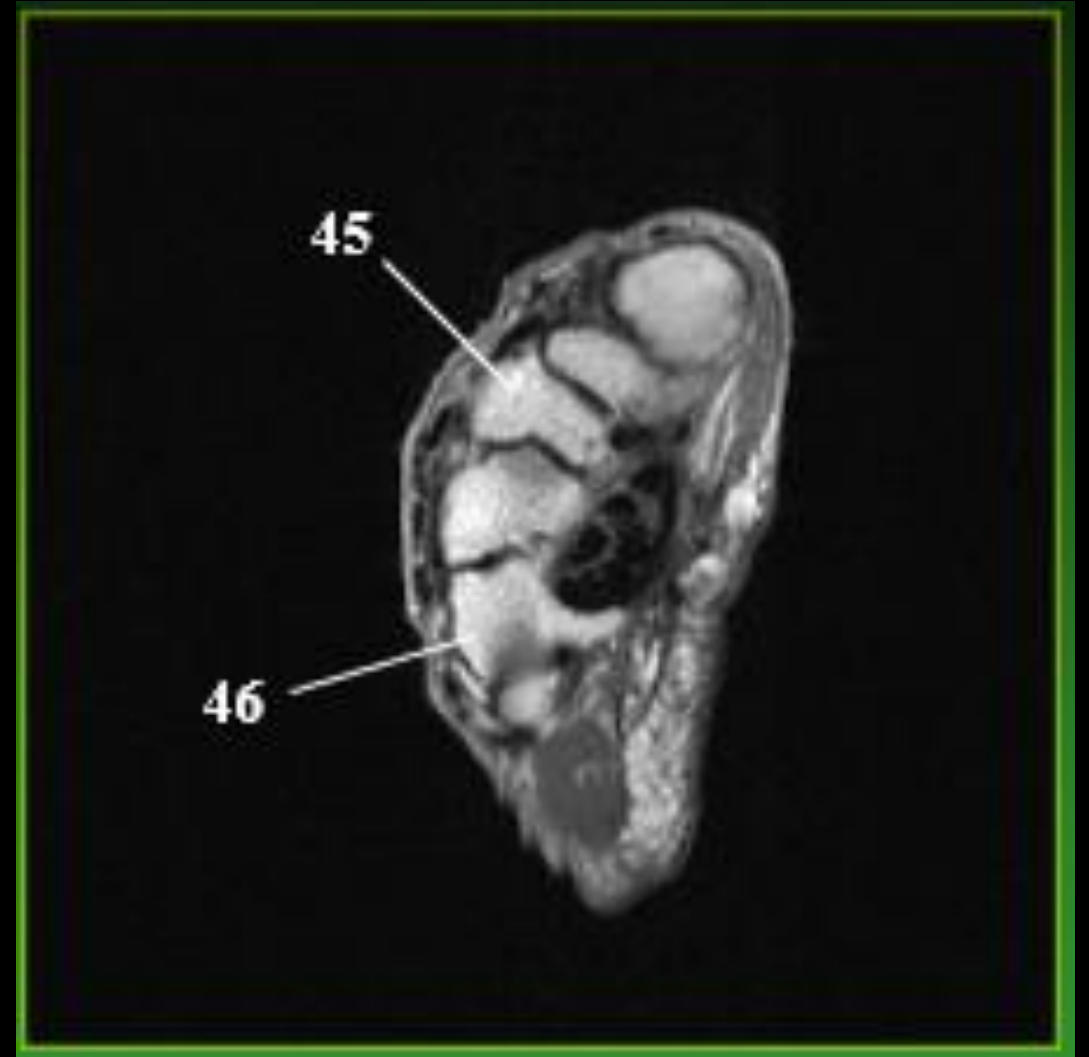
Question #45 and 46:

45. The name of this carpal bone is:

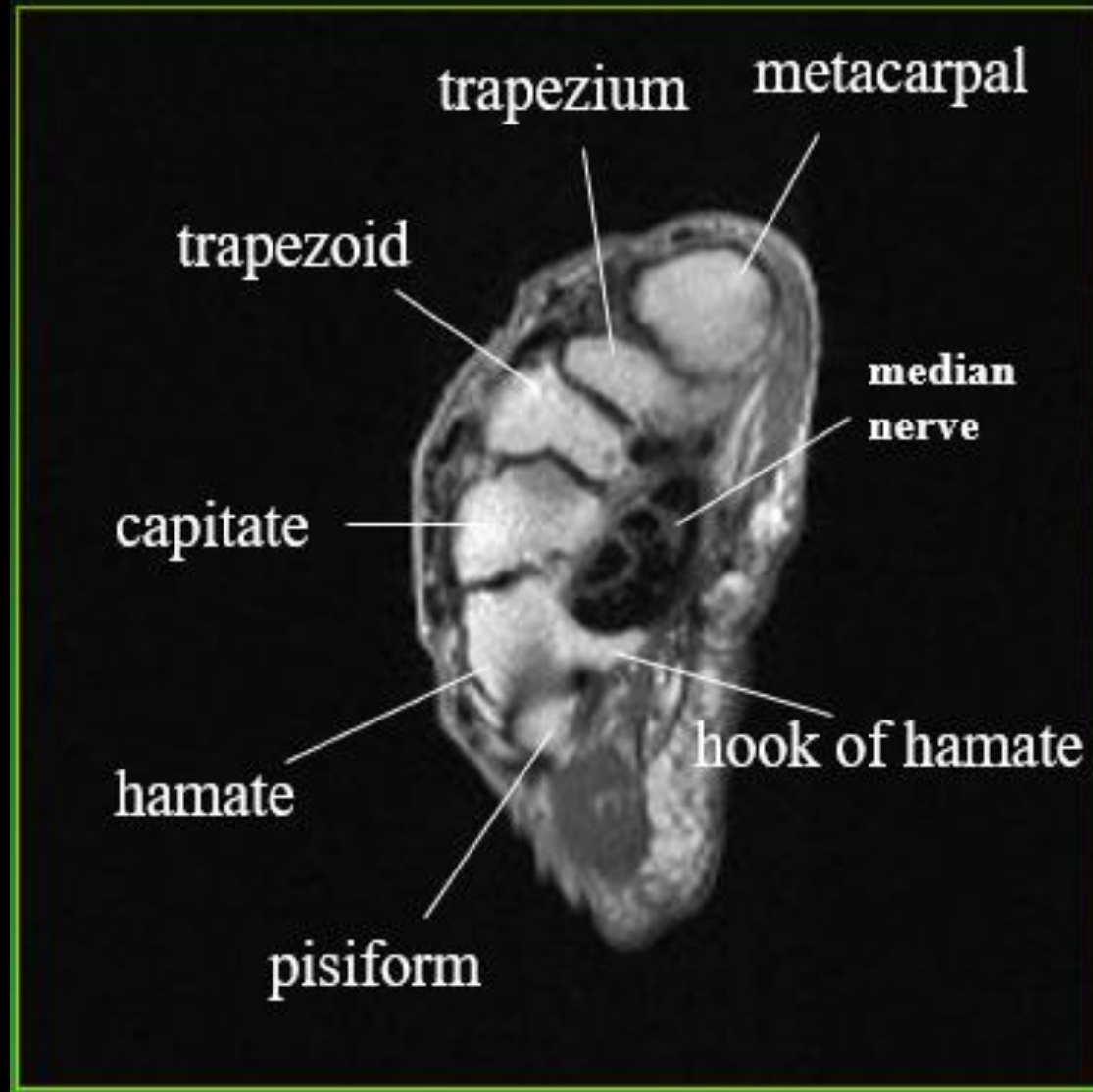
- a) trapeziod
- b) trapezium
- c) triquetrum
- d) none of the above

46. The name of this carpal bone is:

- a) triquetrum
- b) hamate
- c) lunate
- d) scaphoid



Question #45 and 46: **Review**



Question #47:

47. Given the anatomy being viewed, it is acceptable to leave rings on taking an x-ray of the wrist.

- a) true
- b) false

Question #47: Review



Question #48:

48. Anatomical position of the hand requires the hand to be:

- a) perpendicular to midline
- b) palm down
- c) palm up
- d) abducted 45°

Question #48: Review

Anatomical position of the hand is palm up or facing forward.

Question #49:

49. The carpal row identified on the image to the right is:

- a) proximal row
- b) distal row
- c) carpal bones from both rows are marked
- d) none of the above



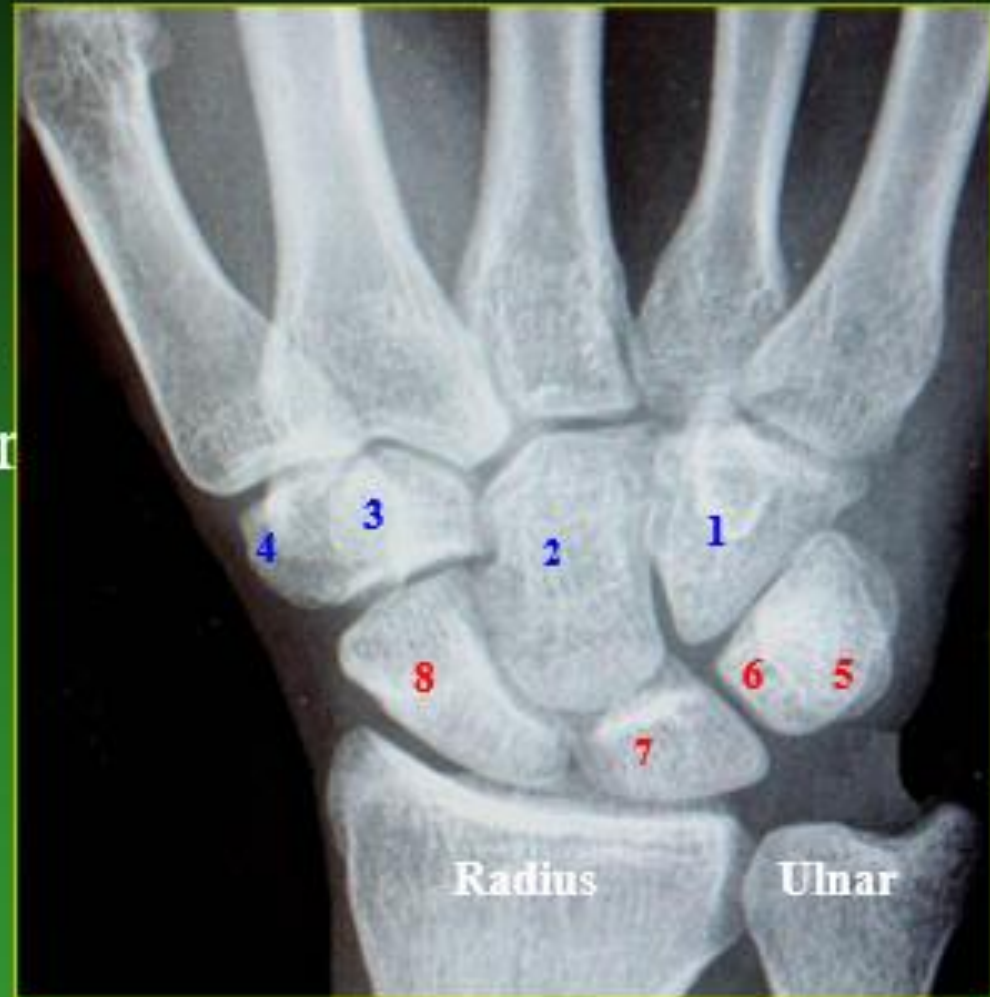
Question #49: Review

Distal Row:

1. Hamate (unciform)
2. Capitate (os magnum)
3. Trapezoid (lesser multangular)
4. Trapezium (greater multangular)

Proximal Row:

5. Pisiform
6. Triquetral (triquetrum)
7. Lunate (semilunar)
8. Scaphoid (navicular)



Note: The PA wrist is obtained when the patient's hand is in a palm down position. This is not anatomical position

Question #50:

50. It is good practice to utilizing shielding regardless of age.

- a) true
- b) false

Question #50: Review

- Radiography of the hand and wrist is done at a **40-inch SID** (source image distance).
- Keep the body part as close to the cassette as possible in order to reduce **OID** (object image distance).
- Although x-ray machines vary, the general **kVp** ranges for radiography of the wrist and hand is between **50-65 kVp**.
- Adjustments in **kVp** and **MA**s should be considered in cases involving splints, casts, wraps, swelling, braces, etc.
- The body part should be **parallel** to the film; the **central ray** (centering) should be **perpendicular (90°)** to the body part and the film.
- Always **shield** when possible; use **collimation**, identify **LEFT** or **RIGHT** by utilizing lead markers, remove jewelry that may interfere with anatomy and be conscious of patient comfort when positioning.

Question #51:

51. The carpal row identified on the image to the right is:

- a) proximal row
- b) distal row
- c) carpal bones from both rows are marked
- d) none of the above



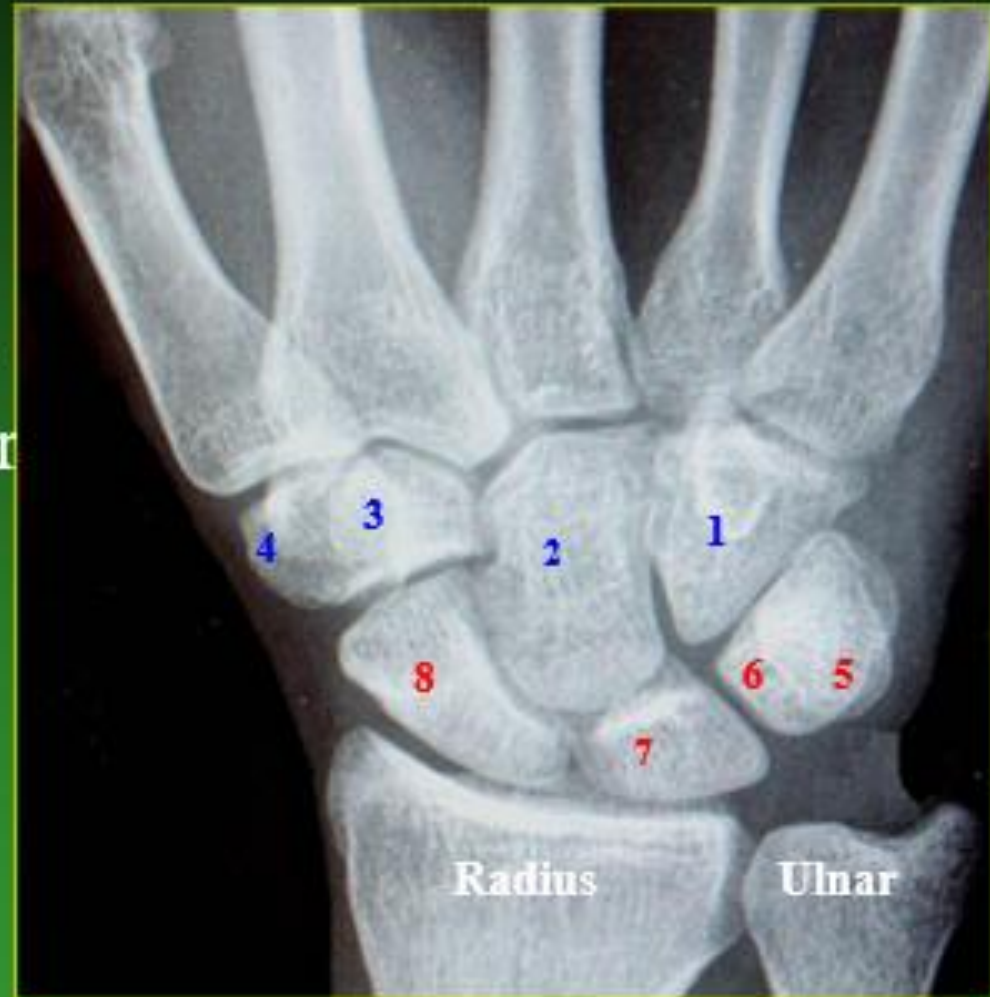
Question #51: Review

Distal Row:

1. Hamate (unciform)
2. Capitate (os magnum)
3. Trapezoid (lesser multangular)
4. Trapezium (greater multangular)

Proximal Row:

5. Pisiform
6. Triquetral (triquetrum)
7. Lunate (semilunar)
8. Scaphoid (navicular)



Note: The PA wrist is obtained when the patient's hand is in a palm down position. This is not anatomical position

Question #52:

52. It is not necessary to utilizing shielding when using DR or CR.

- a) true
- b) false

Question #52: Review

- Radiography of the hand and wrist is done at a **40-inch SID** (source image distance).
- Keep the body part as close to the cassette as possible in order to reduce **OID** (object image distance).
- Although x-ray machines vary, the general **kVp** ranges for radiography of the wrist and hand is between **50-65 kVp**.
- Adjustments in **kVp** and **MA**s should be considered in cases involving splints, casts, wraps, swelling, braces, etc.
- The body part should be **parallel** to the film; the **central ray** (centering) should be **perpendicular (90°)** to the body part and the film.
- Always **shield** when possible; use **collimation**, identify **LEFT** or **RIGHT** by utilizing lead markers, remove jewelry that may interfere with anatomy and be conscious of patient comfort when positioning.

Question #53:

53. The carpal row visible on the image to the right is:

- a) proximal row
- b) distal row
- c) no carpal bones are visible
- d) both a and b



Question #53: Review

Lateral wrist:

- Place the wrist onto the cassette in a lateral (thumb up) position.
- Center at the midcarpal area of the wrist.
- Include the distal radius and ulna, carpals and $\frac{1}{2}$ of the metacarpals.



Question #54:

54. It is necessary to include metacarpals in the image of a lateral wrist.

- a) true
- b) false

Question #54: Review

Lateral wrist:

- Place the wrist onto the cassette in a lateral (thumb up) position.
- Center at the midcarpal area of the wrist.
- Include the distal radius and ulna, carpals and $\frac{1}{2}$ of the metacarpals.

Question #55:

55. Keeping the body part as close to the cassette as possible will reduce **OID** (object image distance).

- a) true
- b) false

Question #55: Review

- Radiography of the hand and wrist is done at a **40-inch SID** (source image distance).
- Keep the body part as close to the cassette as possible in order to reduce **OID** (object image distance).
- Although x-ray machines vary, the general **kVp** ranges for radiography of the wrist and hand is between **50-65 kVp**.
- Adjustments in **kVp** and **MA**s should be considered in cases involving splints, casts, wraps, swelling, braces, etc.
- The body part should be **parallel** to the film; the **central ray** (centering) should be **perpendicular (90°)** to the body part and the film.
- Always **shield** when possible; use **collimation**, identify **LEFT** or **RIGHT** by utilizing lead markers, remove jewelry that may interfere with anatomy and be conscious of patient comfort when positioning.

Question #56:

56. The central ray (centering) should be perpendicular (90°) to the body part and the film.

- a) true
- b) false

Question #56: Review

- Radiography of the hand and wrist is done at a **40-inch SID** (source image distance).
- Keep the body part as close to the cassette as possible in order to reduce **OID** (object image distance).
- Although x-ray machines vary, the general **kVp** ranges for radiography of the wrist and hand is between **50-65 kVp**.
- Adjustments in **kVp** and **MA**s should be considered in cases involving splints, casts, wraps, swelling, braces, etc.
- The body part should be **parallel** to the film; the **central ray** (centering) should be **perpendicular (90°)** to the body part and the film.
- Always **shield** when possible; use **collimation**, identify **LEFT** or **RIGHT** by utilizing lead markers, remove jewelry that may interfere with anatomy and be conscious of patient comfort when positioning.

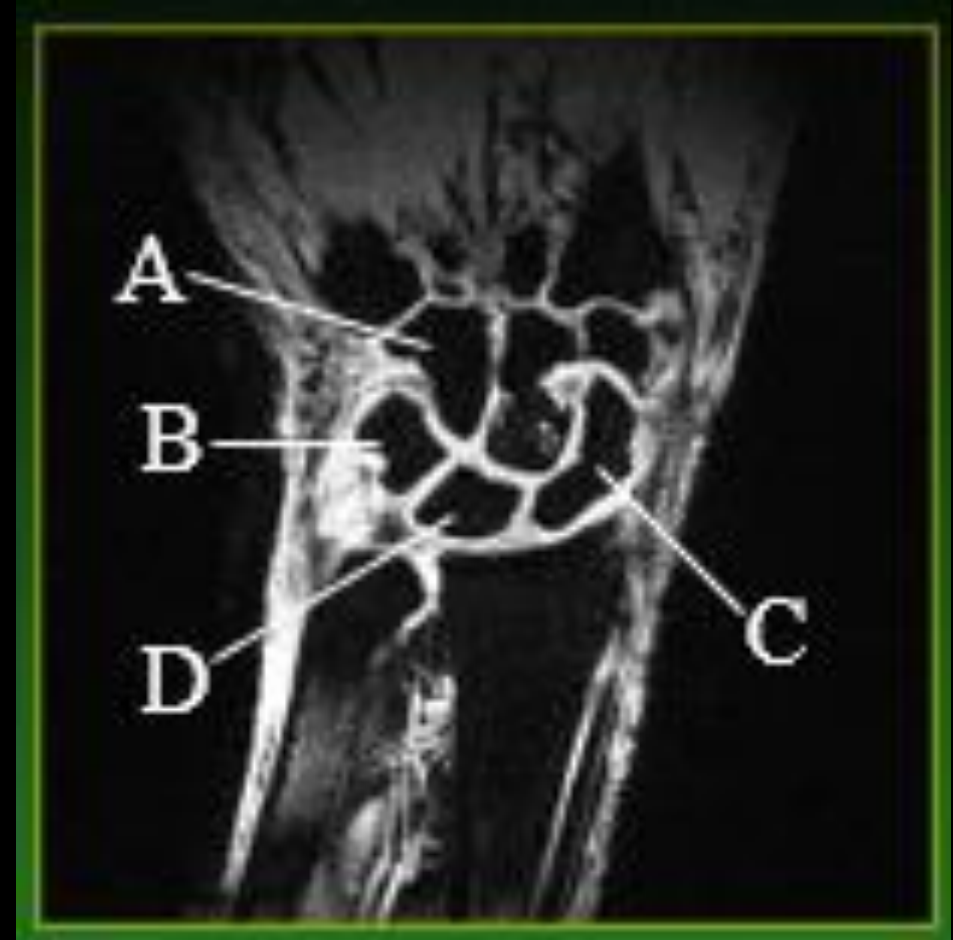
Question #57 and 58:

57. The coronal view of the wrist is comparable to this view in x-ray:

- a) proximal
- b) distal
- c) PA
- d) none of the above

58. Which bone in the image above is the lunate?

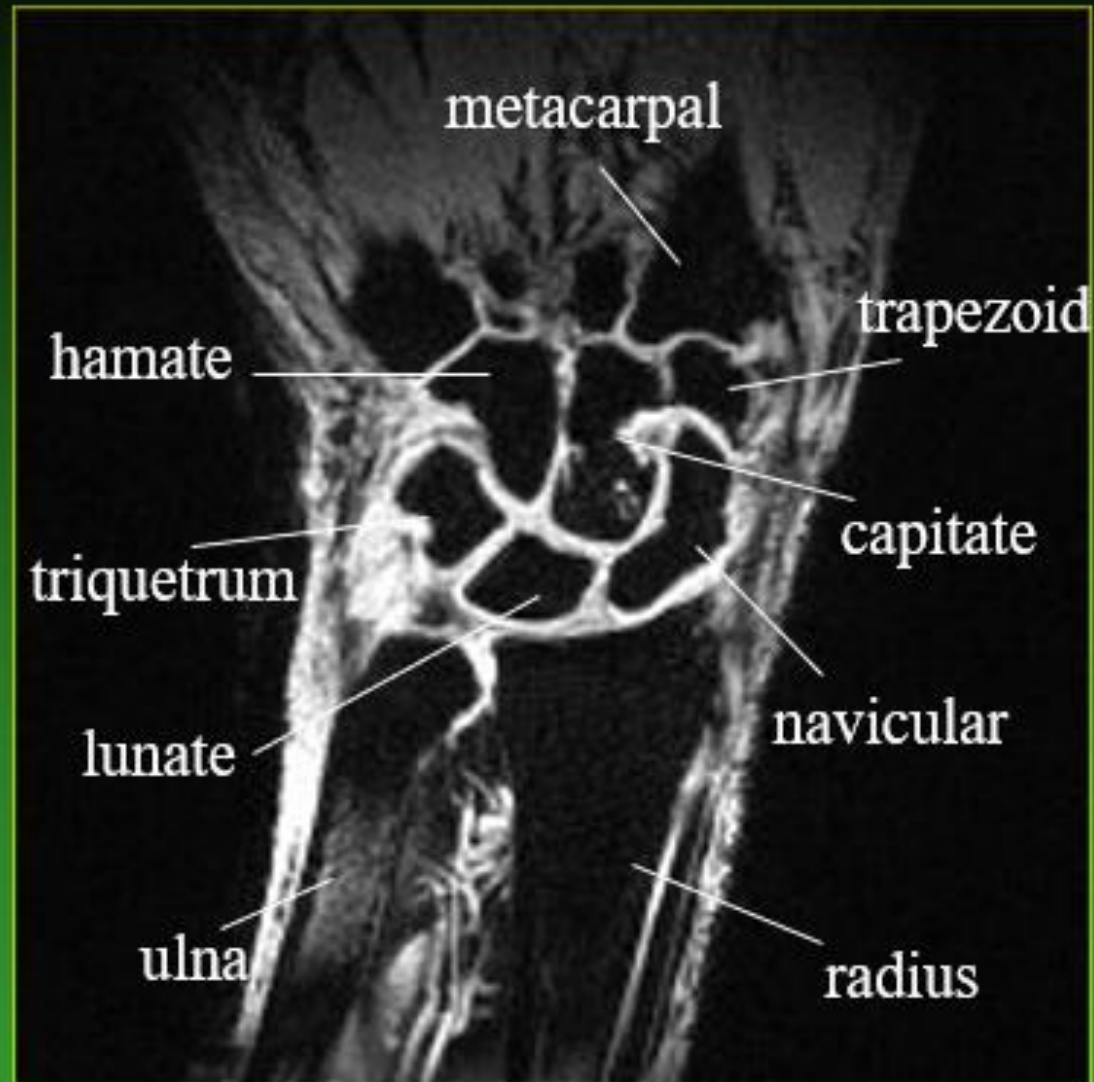
- a) A
- b) B
- c) C
- d) D



Question #57 and 58: Review

Coronal T2

The coronal view of the wrist in MRI is comparable to the PA view of the wrist in x-ray. The image to the right is one slice of a coronal sequence.



Question #59:

59. Capitate is also known as the:

- a) navicular
- b) os magnum
- c) pollicis
- d) none of the above

Question #59: Review

The Capitate is also known as the Os magnum.

Question #60:

60. Palm down is anatomical position.

- a) true
- b) false

Question #60: Review

Anatomical position of the hand is palm up or facing forward.

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About the Author:

Shane began his career in the health field by becoming a certified personal trainer by AFAA (Aerobics and Fitness Association of America) in 1993. Soon after he began taking prerequisite classes at the Community College of Rhode Island for the Physical Therapist Assistant program.

In 1996, Shane was accepted at Newbury College in Brookline, MA to enroll into the Physical Therapist Assistant program. While attending classes at Newbury, he was employed by the college as a tutor for kinesiology. Shane graduated Cum Laude from Newbury College in 1998 with an A.A.S. degree. He was also elected into the Who's Who Amongst Students in American Universities and Colleges for 1997-1998. Shane immediately took his licensing test in Rhode Island and successfully received his license as a Physical Therapist Assistant.

Shane moved to Florida 1999 and began working as a Physical Therapist Assistant in the acute, skilled nursing and outpatient settings. He has done extensive co-treating with Occupational Therapists and Occupational Therapist Assistants on a wide variety of patients with varying health conditions.

In 2001, Shane enrolled into the Radiography program at St. Petersburg College. There he gained a whole new appreciation for anatomy and health/patient care. He graduated top of his class in 2003 with an A.A.S. degree in radiography and earned the Mallinckrodt Award. Shane took the national registry by the ARRT and obtained a General Radiographer's license. He has been working in the field ever since, Shane has also successfully completed two MRI courses offered by St. Petersburg College.

In 2003, his radiographer instructor, John Fleming, inspired him to create a company that offered high quality continuing education units at an affordable price. SCS Continuing Education was born. SCS Continuing Education currently has two continuing education programs approved by the Florida Physical Therapy Association (FPTA), the Mississippi State Board of Physical Therapy (MSBPT) and the Arkansas State Board for Physical Therapy (ARPTB) for Physical Therapists and Physical Therapist Assistants and two continuing education programs approved by the Florida Department of Health (FDOH) Bureau of Radiation Control for Category A credits for radiographers.

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