Testbank Chapter 7. The Skeletal System: The Axial Skeleton

Multiple Choice

1. The branch of medicine that deals with correction of disorders of the musculoskeletal system is called
    a) Rheumatics
    b) Podiatry
    c) Orthopedics
    d) Cardiology
    e) Interologist

    Ans: C
    Difficulty: easy
    Feedback: Chapter Opener

2. How many bones are found in the adult human skeleton?
    a) 200
    b) 206
    c) 212
    d) 227
    e) 250

    Ans: B
    Difficulty: easy
    Feedback: 7.1

3. Which of the following is not true?
    a) The axial skeleton has 80 bones
    b) The appendicular skeleton has 126 bones
    c) The axial skeleton is composed of the bones that run through the axis of the body.
    d) Children have more bones than adults.
    e) The appendicular skeleton does not include the girdles.

    Ans: E
    Difficulty: easy
    Feedback: 7.1

4. Which of the following is NOT found in the axial skeleton?
    a) Hyoid
    b) Ribs
    c) Vertebrae
    d) Carpals
    e) Sternum

    Ans: D
    Difficulty: medium
    Feedback: 7.1

5. Which of the following is found in the axial skeleton?
    a) Tarsal
    b) Tibia
    c) Sphenoid
    d) Scapula
    e) Clavicle

    Ans: C
    Difficulty: medium
    Feedback: 7.1

Essay

6. Briefly describe the types of bones found in the human body.

    Ans: The human body contains five types of bones. Long bones have greater length than width and consist of a shaft and a variable number of extremities. Short bones are somewhat cube-shaped because they are nearly equal in length and width. Flat bones are generally thin and composed of two nearly parallel plates of compact bones tissue enclosing a layer of spongy bone tissue. Irregular bones have complex shapes and cannot be grouped into any of the previous categories. Sesamoid bones develop in certain tendons where there is considerable friction, tension and physical stress and are shaped similarly to a sesame seed.
    Difficulty: medium
    Feedback: 7.2

Multiple Choice

7. Which type of bone is the femur?
    a) Long bone
    b) Short bone
    c) Flat bone
    d) Irregular bone
    e) Sesamoid bone

    Ans: A
    Difficulty: medium
    Feedback: 7.2

8. Which type of bone is the occipital?
    a) Long bone
    b) Short bone
    c) Flat bone
    d) Irregular bone
    e) Sesamoid bone

    Ans: C
    Difficulty: medium
    Feedback: 7.2

9. This is a bone located within ankles or wrists.
    a) Long bone
    b) Sutural bone
    c) Irregular bone
    d) Sesamoid bone
    e) Short bone

    Ans: E
    Difficulty: medium
    Feedback: 7.2

10. Which of the following is NOT true of surface markings on bone.

a) They allow the passage of nerves and blood vessels.
b) They provide attachments for muscles.
c) They provide movement within the bone.
d) They help form joints.
e) They can be a depression or a projection.

Ans: C
Difficulty: medium
Feedback: 7.3

11. Bones in the following area protect the brain.
a) Cranium
b) Vertebral column
c) Sacrum
d) Face
e) Ribcage

Ans: A
Difficulty: medium
Feedback: 7.4

12. Which of the following is not a facial bone?
a) Parietal
b) Nasal
c) Maxillae
d) Zygomatic
e) Palatine

Ans: A
Difficulty: medium
Feedback: 7.4

13. Which is not true of the skull bones?
a) They include mucous membranes
b) The only movable bone in the skull is the mandible
c) The skull contains foraminas but no fissures
d) The facial bones provide support for entrance into the digestive system
e) They include sinus cavities

Ans: C

Difficulty: medium
Feedback: 7.4

14. Which of the following bones is not visible from the anterior view of the skull?
    a) Parietal
    b) Frontal
    c) Mandible
    d) Occipital
    e) Maxilla

    Ans: D
    Difficulty: medium
    Feedback: 7.4

15. These bones form the inferior lateral aspects of the cranium and part of the cranial floor.
    a) Frontal
    b) Temporal
    c) Parietal
    d) Occipital
    e) Nasal

    Ans: B
    Difficulty: medium
    Feedback: 7.4

16. These bones include the organs of hearing and balance and articulate with the mandible.
    a) Frontal
    b) Temporal
    c) Parietal
    d) Occipital
    e) Nasal

    Ans: B
    Difficulty: medium
    Feedback: 7.4

17. The mastoid process
    a) Is a rounded projection of the parietal bones
    b) Is the point of attachment for several neck muscles
    c) Is anterior to the external auditory meatus.
    d) Both a and b
    e) All of the above

    Ans: B
    Difficulty: hard
    Feedback: 7.4

18. These projections on either side of the foramen magnum articulate with depressions on the first cervical vertebrae.
    a) Mastoid processes
    b) Temporomandibular joint
    c) Foramen magnum
    d) Occipital condyles
    e) Sella turcica

    Ans: D
    Difficulty: hard
    Feedback: 7.4

19. Which cranial bone articulates with every other cranial bone?
    a) Occipital
    b) Frontal
    c) Ethmoid
    d) Nasal
    e) Sphenoid

    Ans: E
    Difficulty: easy
    Feedback: 7.4

20. This cranial bone is anterior to the sphenoid and posterior to the nasal bones. It contains foramina for the olfactory cranial nerve.
    a) Ethmoid
    b) Frontal
    c) Palatine
    d) Maxilla

e) Temporal

Ans: A
Difficulty: medium
Feedback: 7.4

21. This facial bone articulates with teeth.
    a) Lacrimal
    b) Palatine
    c) Vomer
    d) Maxillae
    e) Nasal

    Ans: D
    Difficulty: medium
    Feedback: 7.4

22. Which of the following is not a facial bone?
    a) Vomer
    b) Palatine
    c) Lacrimal
    d) Occipital
    e) Mandible

    Ans: D
    Difficulty: easy
    Feedback: 7.4

Essay

23. Briefly describe the bones of the of the eye orbits. Include the areas formed by each bone.

    Ans: Parts of the frontal and sphenoid bones comprise the roof of the orbit. Parts of the zygomatic and sphenoid bones form the lateral wall of the orbit. Parts of the maxilla, zygomatic and palatine bones make up the floor of the orbit. Parts of the maxilla, lacrimal, ethmoid, and sphenoid bones form the medial wall of the orbit.
    Difficulty: medium

Feedback: 7.4

24. Briefly describe the location each of the four sutures including relevant bones.

    Ans: The coronal suture unites the frontal bon and both parietal bones. The sagittal suture unites the two parietal bones on the superior midline of the skull. The lambdoid suture unites the two parietal bones to the occipital bone. The squamous suture unites the parietal and temporal bones on the lateral aspects of the skull.
    Difficulty: medium
    Feedback: 7.4

25. Briefly describe the function of the fontanels.

    Ans: The fontanels are important in allowing flexibility during childbirth and allow brain growth.
    Difficulty: medium
    Feedback: 7.4

26. Briefly describe the function of the paranasal sinuses.

    Ans: The sinuses lighten the skull and contain a mucus membrane that cleans inspired air.
    Difficulty: medium
    Feedback: 7.4

27. Briefly describe the six fontanels of the infant skull including their location, shape and time of closure.

    Ans: The unpaired anterior fontanel is located at the midline between the two parietal bones and the frontal bone. It is roughly diamond shaped and is the largest fontanel. It usually closes 18-24 months after birth. The unpaired posterior fontanel is located at the midline between the two parietal bones and the occipital bone. It is smaller than the anterior fontanel and closes about 2 months after birth. The paired anterolateral fontanels are located laterally between the frontal, parietal, temporal and sphenoid bones and are smaller in shape. They close about 3 months after birth. The paired posterolateral fontanels are located laterally between the parietal, occipital and temporal bones and are irregularly shaped.

They begin to close 1 to 2 months after birth, but closure is not complete until 12 months.
Difficulty: hard
Feedback: 7.4

Multiple Choice

28. Which bone of the axial skeleton does NOT articulate with any other bone?
    a) Vertebrae
    b) Ethmoid
    c) Sternum
    d) Hyoid
    e) Ilium

    Ans: D
    Difficulty: easy
    Feedback: 7.5

29. Joe was found dead. His hyoid bone was broken. What was the most likely cause of death?
    a) Natural causes
    b) Cardiac arrest
    c) Gun shot
    d) Strangulation
    e) Choking

    Ans: D
    Difficulty: easy
    Feedback: 7.5

30. Describe all the regions of the adult vertebral column including how many bones are in each region.

    Ans: There are seven cervical vertebrae in the neck region. There are twelve thoracic vertebrae posterior to the thoracic cavity. The five lumbar vertebrae support the lower back. There is one fused sacrum vertebrae consisting of five fused bones. There is one coccyx consisting of four fused bones.
    Difficulty: medium

Feedback: 7.6

31. What is the purpose of the nucleus pulposus?
    a) To compress the vertebral bones
    b) To absorb vertical shock
    c) Calcium storage
    d) Spinal fluid reservoir
    e) Muscle attachment

    Ans: B
    Difficulty: medium
    Feedback: 7.6

32. Primary curves of the vertebrae include
    a) Thoracic curve
    b) Sacral curve
    c) Lumbar curve
    d) Cervical curve
    e) All of the above

    Ans: E
    Difficulty: medium
    Feedback: 7.6

33. The function of vertebral processes is
    a) Attachment site for muscles
    b) Calcium storage
    c) To support the body of the vertebrae
    d) To hold the hyoid in place
    e) To allow passage of the spinal cord

    Ans: A
    Difficulty: medium
    Feedback: 7.6

34. What bone feature of the second cervical vertebrae articulates with the first cervical vertebrae?
    a) Primary projection

b) Occular process
c) Odontoid process
d) Cervical projection
e) Cervix

Ans: C
Difficulty: easy
Feedback: 7.6

35. Of the following, which is the largest individual vertebrae?
a) C5
b) L4
c) T4
d) C7
e) T12

Ans: B
Difficulty: medium
Feedback: 7.6

36. These are the inferior articular processes of the fifth sacral vertebrae.
a) Sacral cornua
b) Sacral hiatus
c) Lateral sacral crest
d) Anterior sacral foramina
e) Median sacral crest

Ans: A
Difficulty: hard
Feedback: 7.6

37. Which gender shows the coccyx pointed inferiorly?
a) Females
b) Males
c) Both genders
d) The coccyx does not point inferiorly in either gender

Ans: A
Difficulty: easy
Feedback: 7.6

38. What is the junction between the manubrium and the body of the sternum called?

a) Suprasternal notch
b) Xiphoid process
c) Sternal angle
d) Sternoclavicular joint
e) Manubrium joint

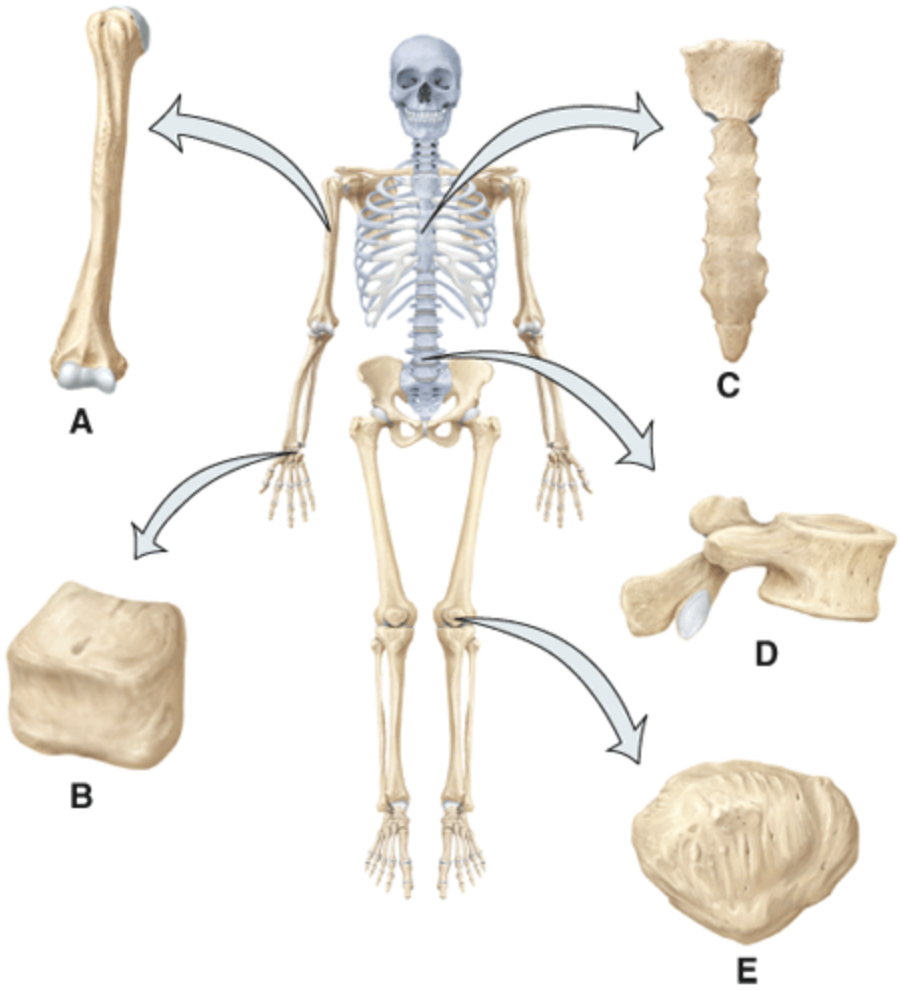
Ans: C
Difficulty: hard
Feedback: 7.7

39. What is inflammation of the costal cartilage called?

a) Costochondritis
b) Floating ribs
c) Cartilaginous distension
d) Costal angle
e) Intercostals space distension

Ans: A
Difficulty: hard
Feedback: 7.7

40.

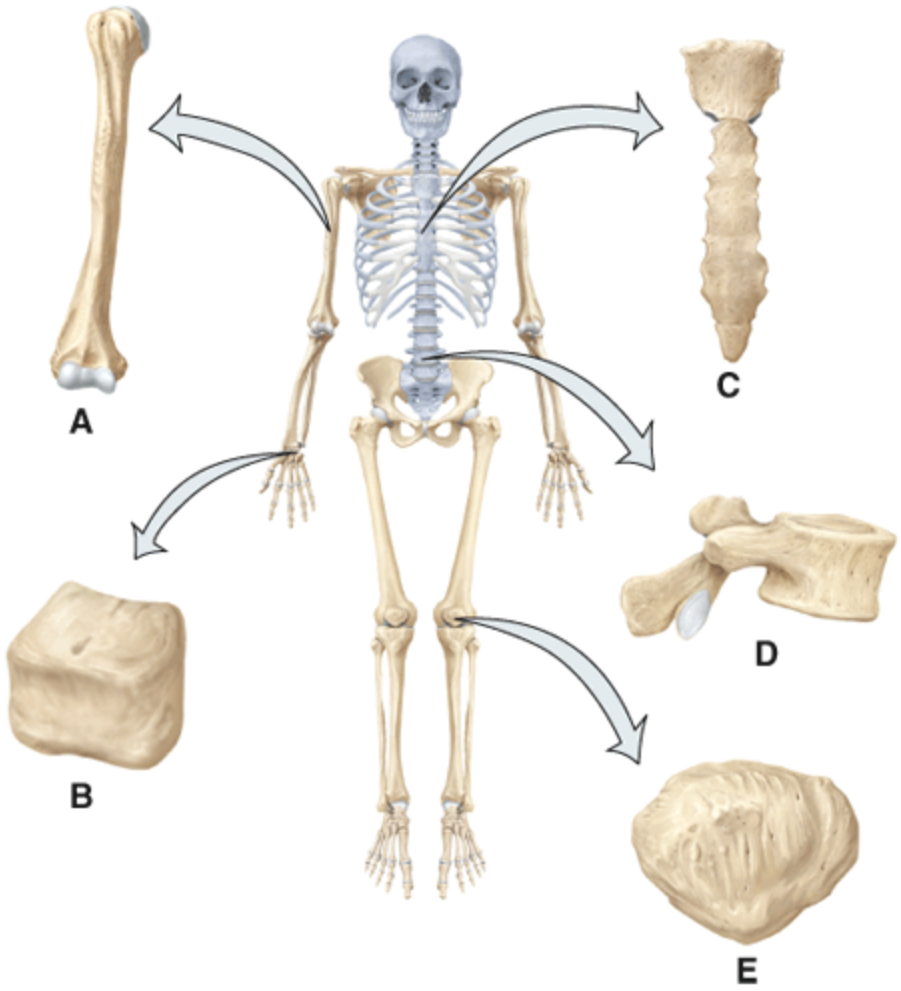


In the diagram, which bone is the flat bone?

a) A
b) B
c) C
d) D
e) E

Ans: C
Difficulty: easy
Feedback: 7.2

41.

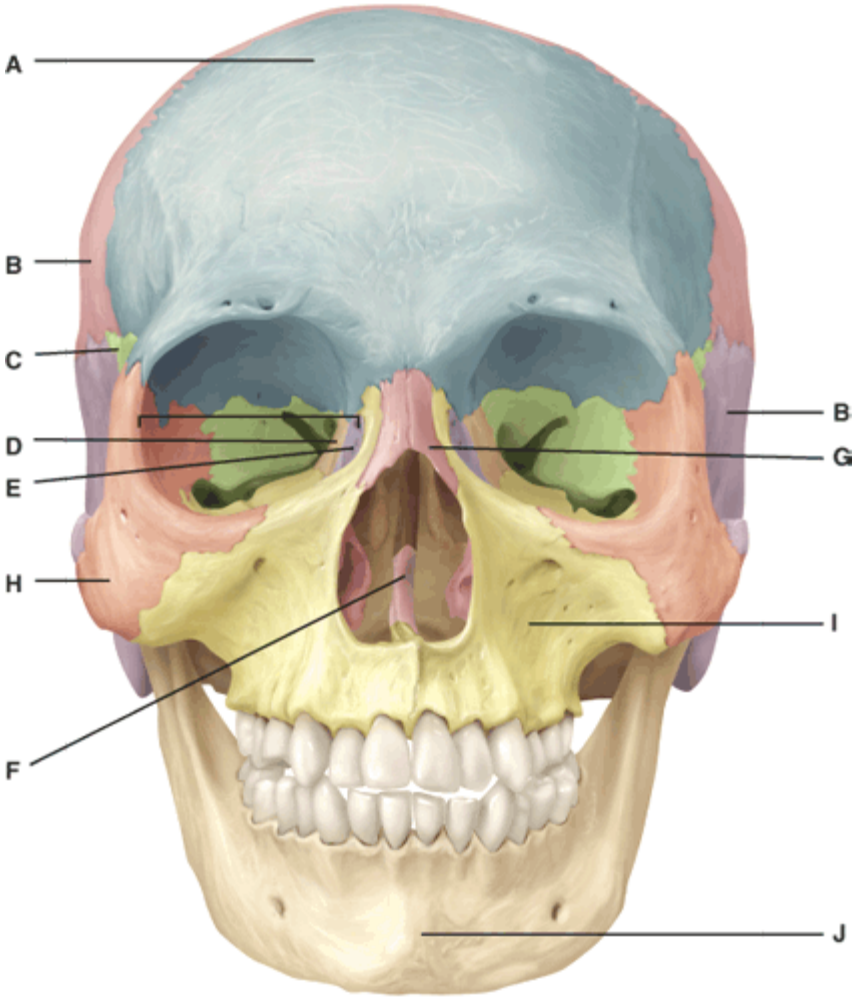


In the diagram, which bone is the short bone?

a) A
b) B
c) C
d) D
e) E

Ans: B
Difficulty: easy
Feedback: 7.2

42.

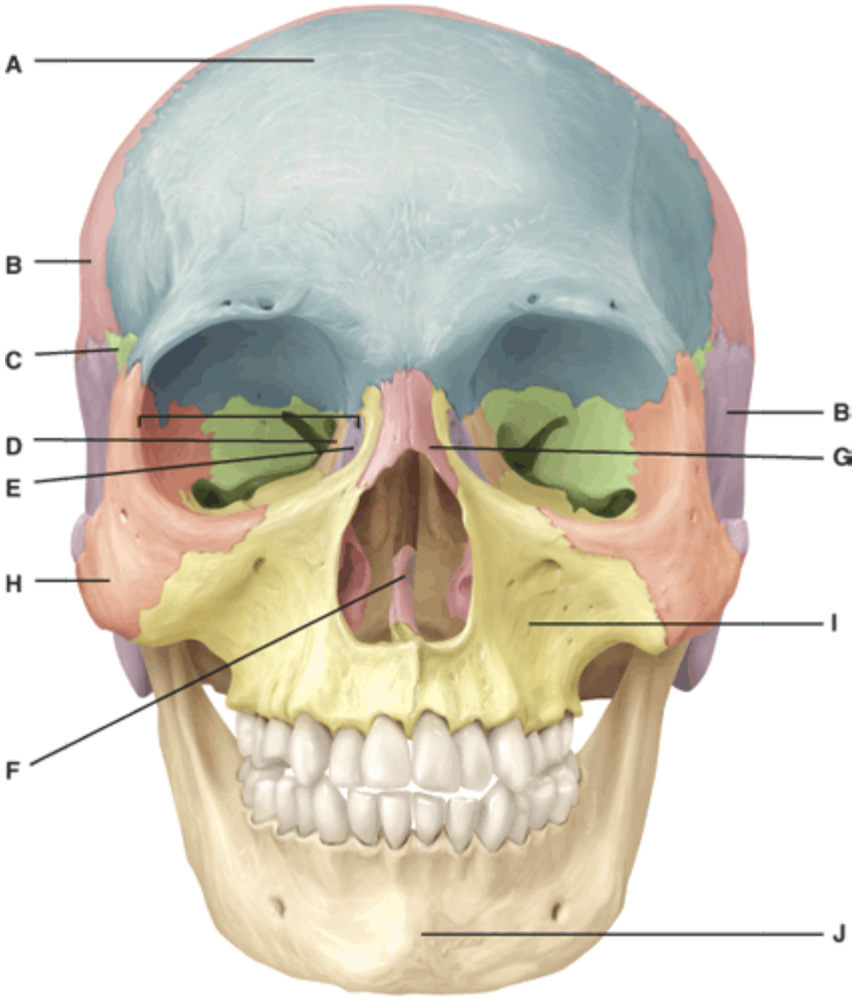


In the diagram, where is the ethmoid bone?

a) A
b) B
c) C
d) D
e) E

Ans: D
Difficulty: medium
Feedback: 7.4

43.

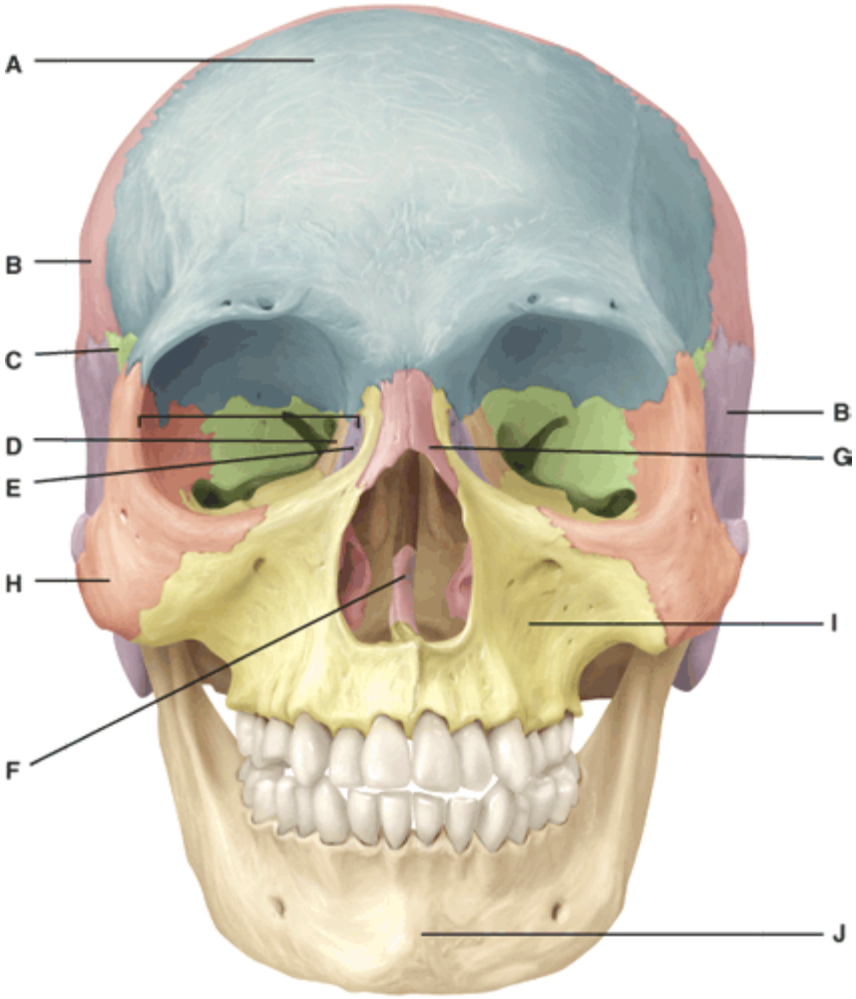


In the diagram, where is the lacrimal bone?

a) E
b) F
c) G
d) H
e) I

Ans: A
Difficulty: medium
Feedback: 7.4

44.

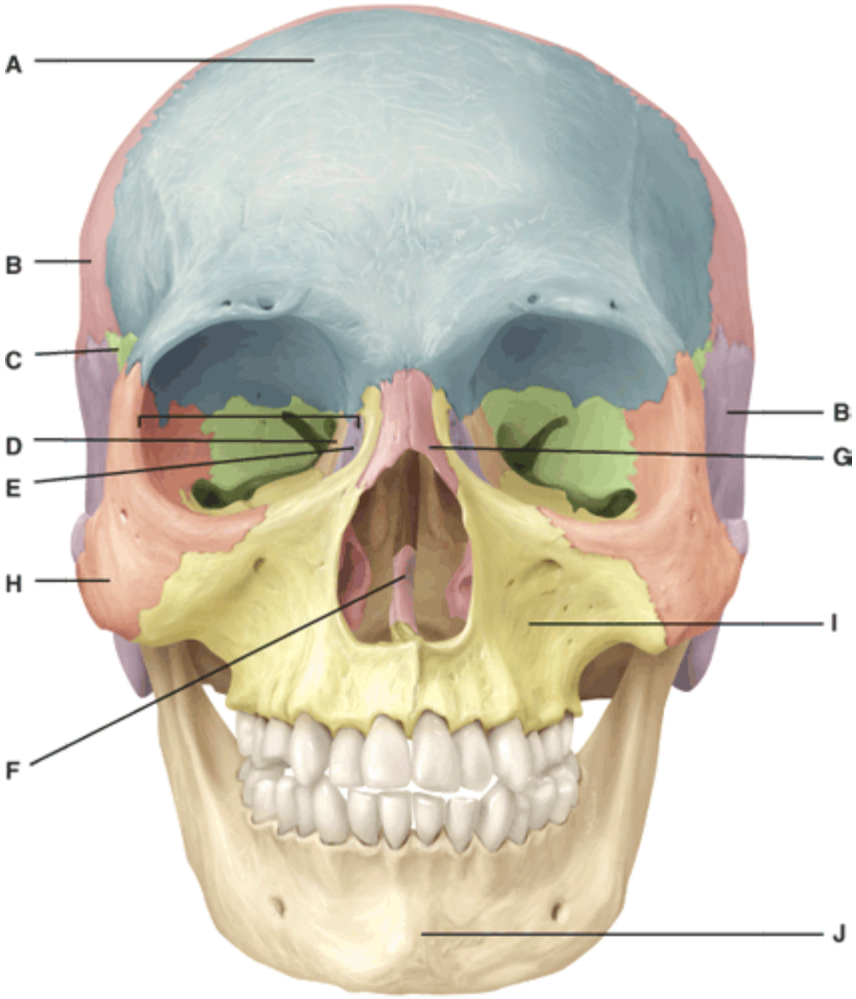


In the diagram, which bone primarily forms the roof of the cranial cavity?

a) A
b) B
c) C
d) D
e) G

Ans: B
Difficulty: hard
Feedback: 7.4

45.

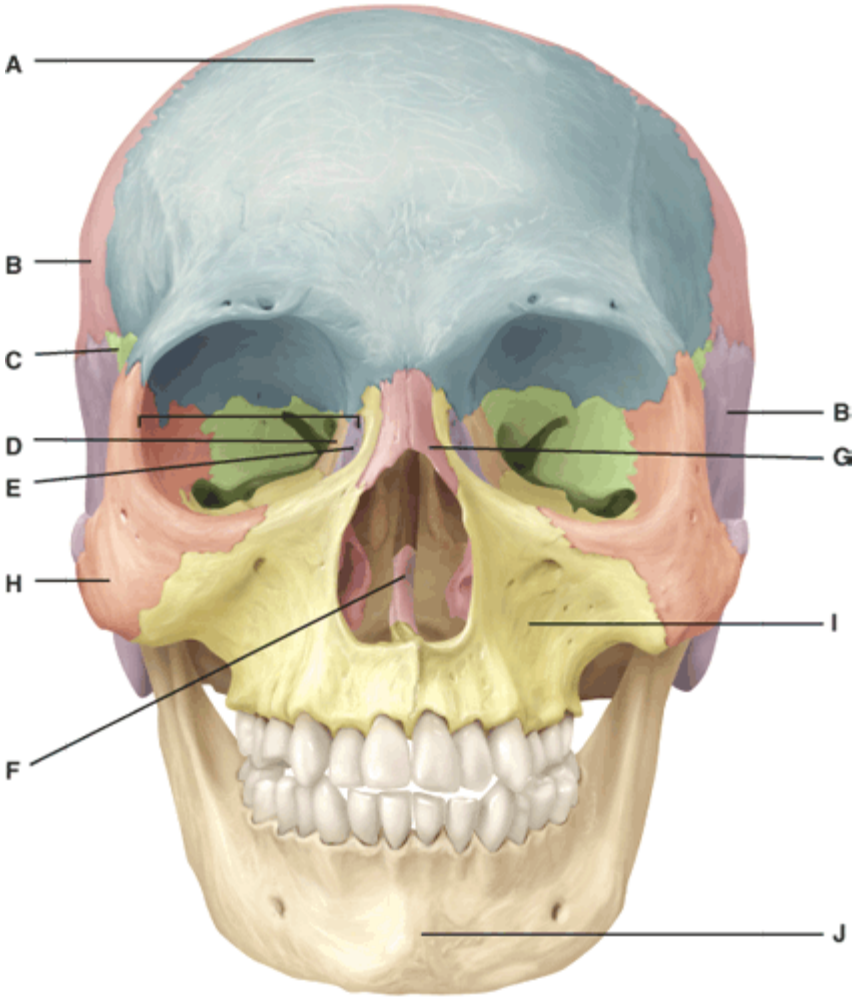


In the diagram, where is the zygomatic bone?

a) G
b) H
c) I
d) J
e) None of the above

Ans: B
Difficulty: medium
Feedback: 7.4

46.

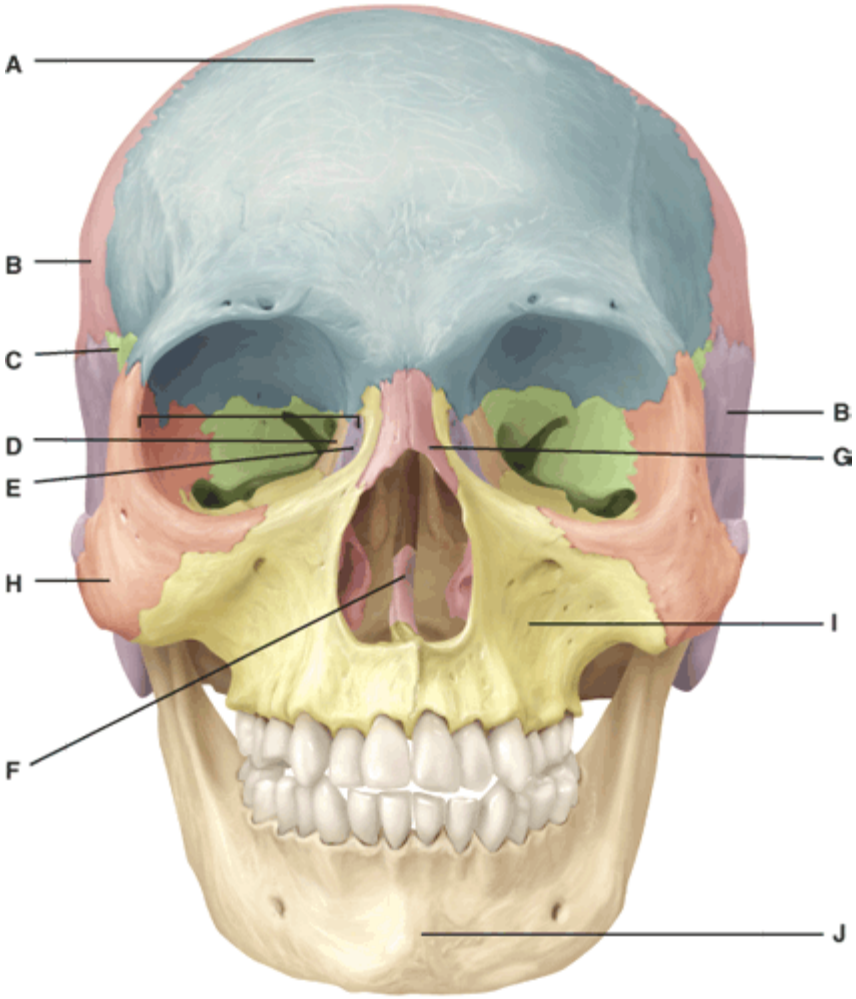


In the diagram, where is the temporal bone?

a) A
b) B
c) C
d) G
e) None of the above

Ans: E
Difficulty: medium
Feedback: 7.4

47.

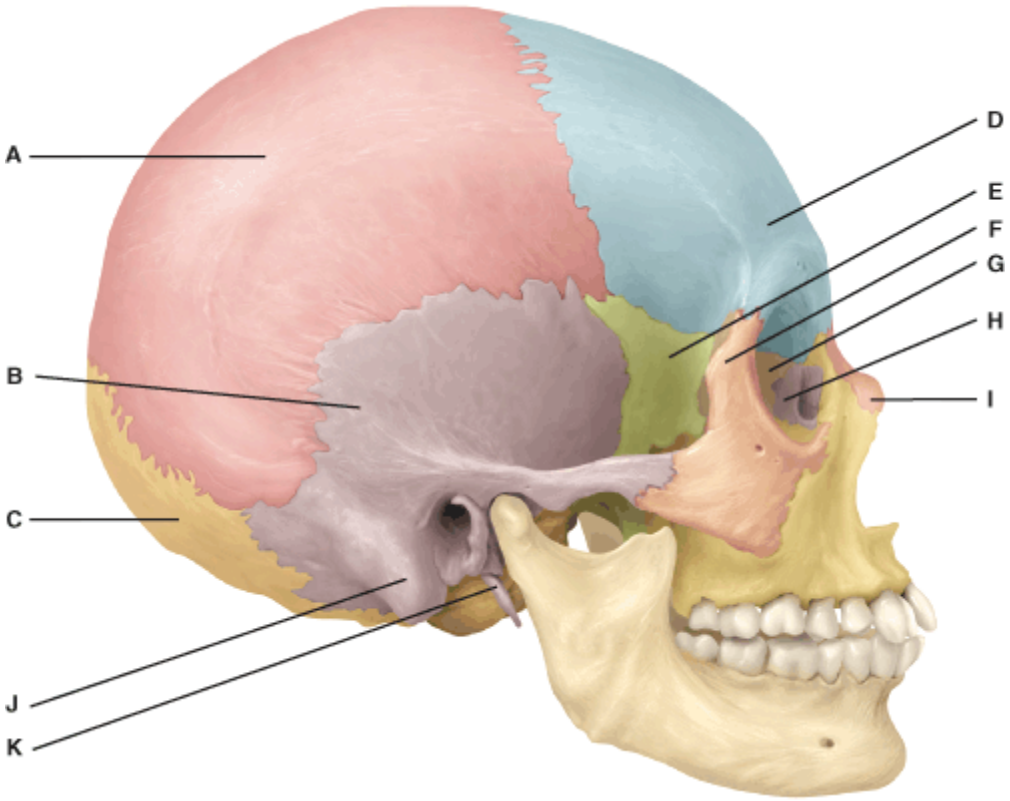


In the diagram, where is the vomer?

a) D
b) E
c) F
d) I
e) J

Ans: C
Difficulty: medium
Feedback: 7.4

48.

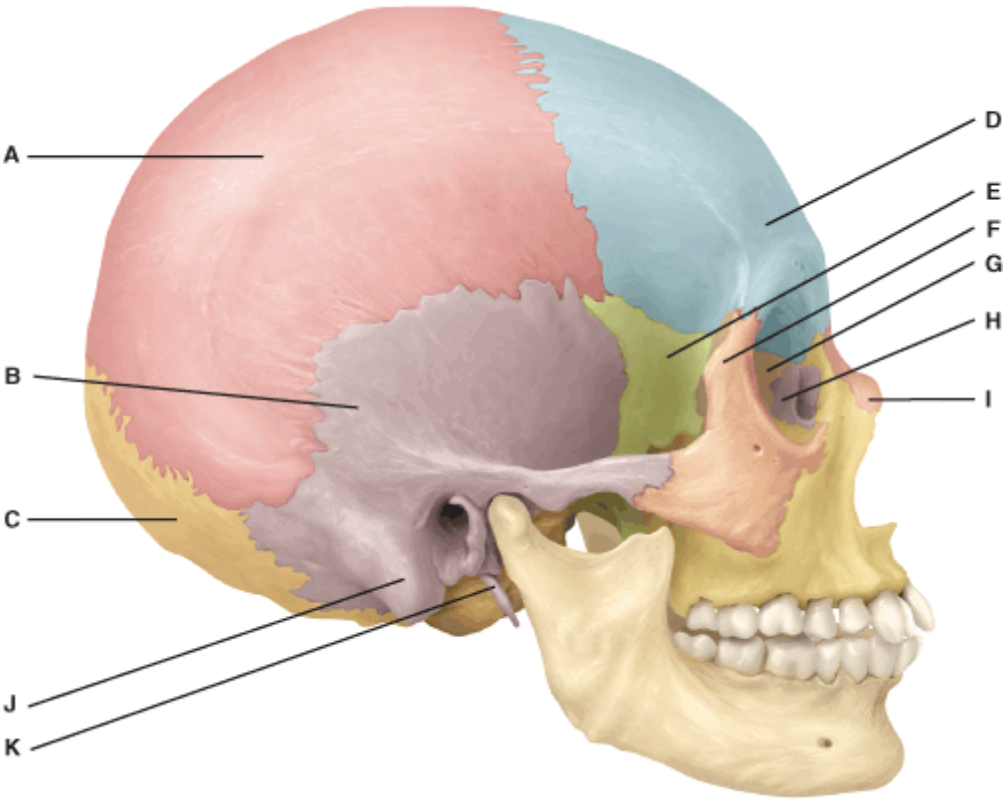


In the diagram, which bone includes the foramen magnum?

a) B
b) C
c) D
d) F
e) G

Ans: B
Difficulty: hard
Feedback: 7.7

49.

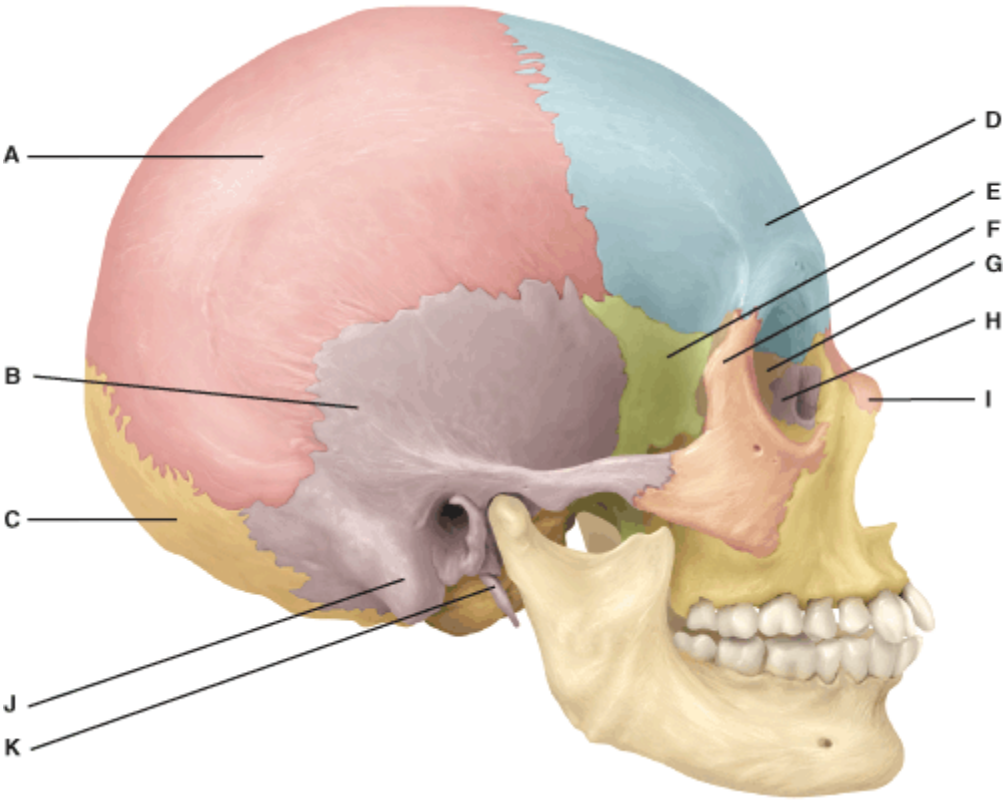


In the diagram, which bone is considered the keystone of the cranial floor?

a) E
b) B
c) G
d) H
e) I

Ans: A
Difficulty: medium
Feedback: 7.4

50.

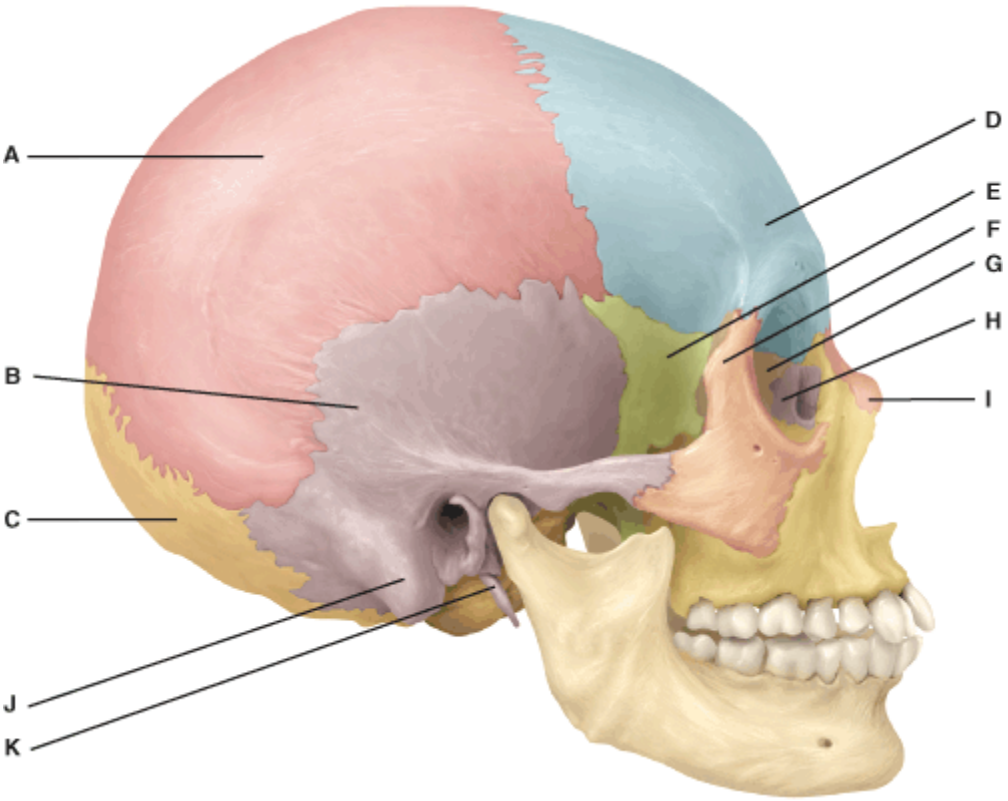


In the diagram, where is the ethmoid bone?

a) J
b) K
c) G
d) H
e) I

Ans: C
Difficulty: medium
Feedback: 7.4

51.

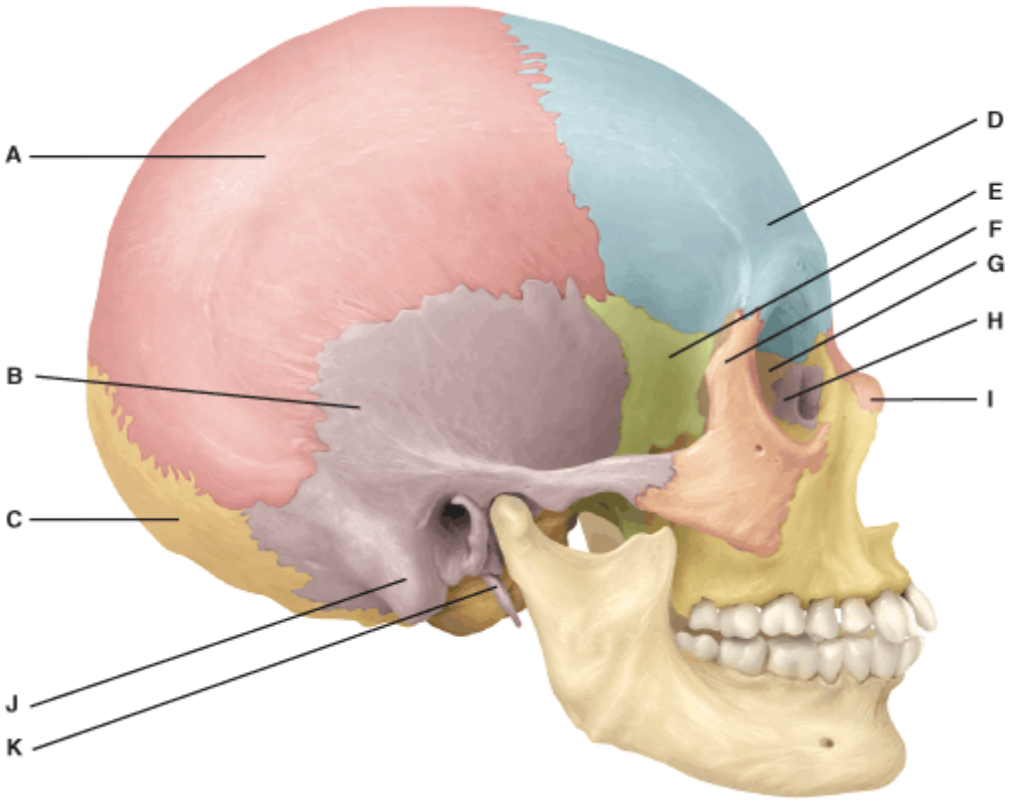


In the diagram, where is the styloid process?

a) J
b) K
c) G
d) H
e) I

Ans: B
Difficulty: medium
Feedback: 7.4

52.

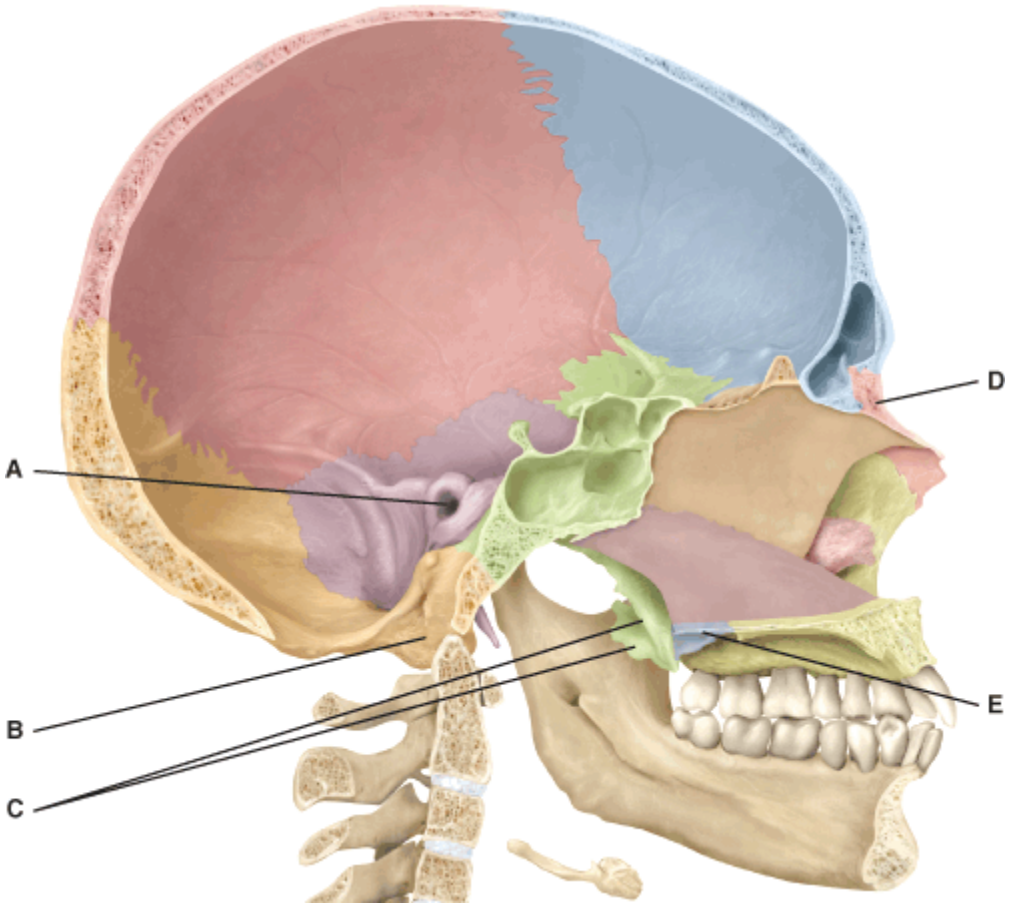


In the diagram, where is the mastoid process?

a) J
b) K
c) G
d) H
e) I

Ans: A
Difficulty: medium
Feedback: 7.4

53.

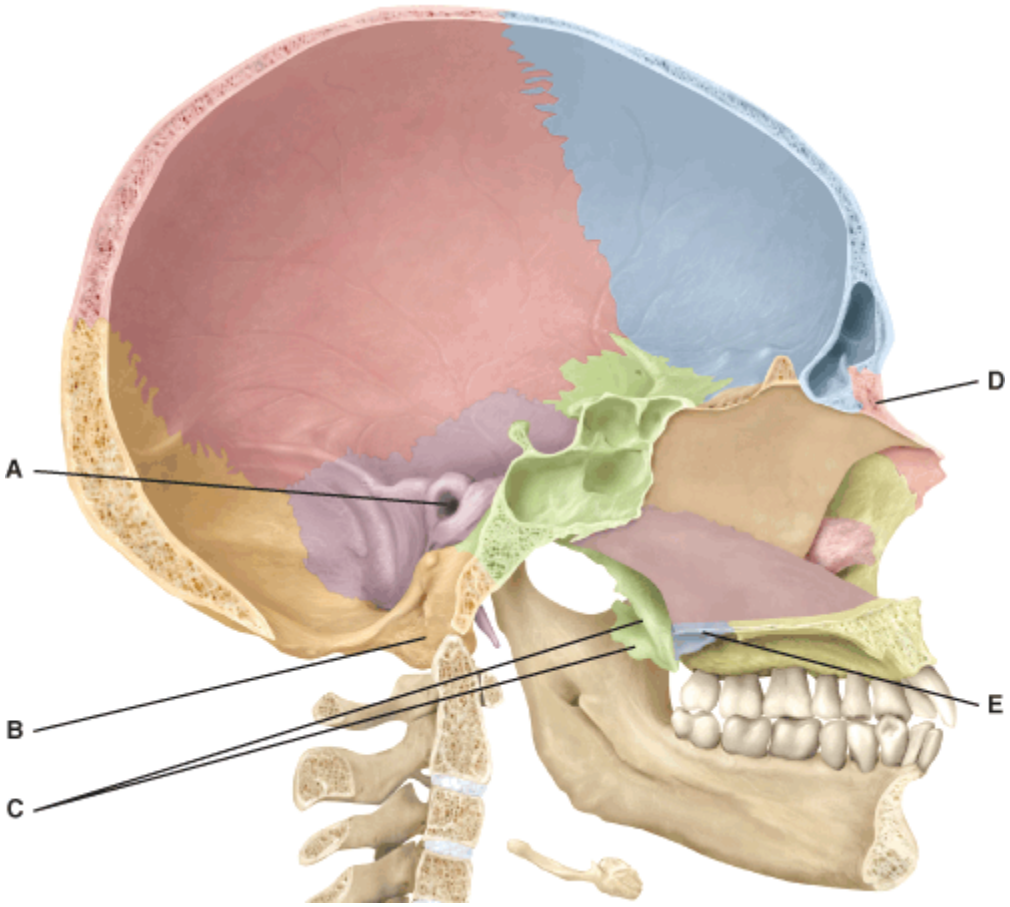


In the diagram, where is the pterygoid process?

a) A
b) B
c) C
d) D
e) E

Ans: C
Difficulty: medium
Feedback: 7.4

54.

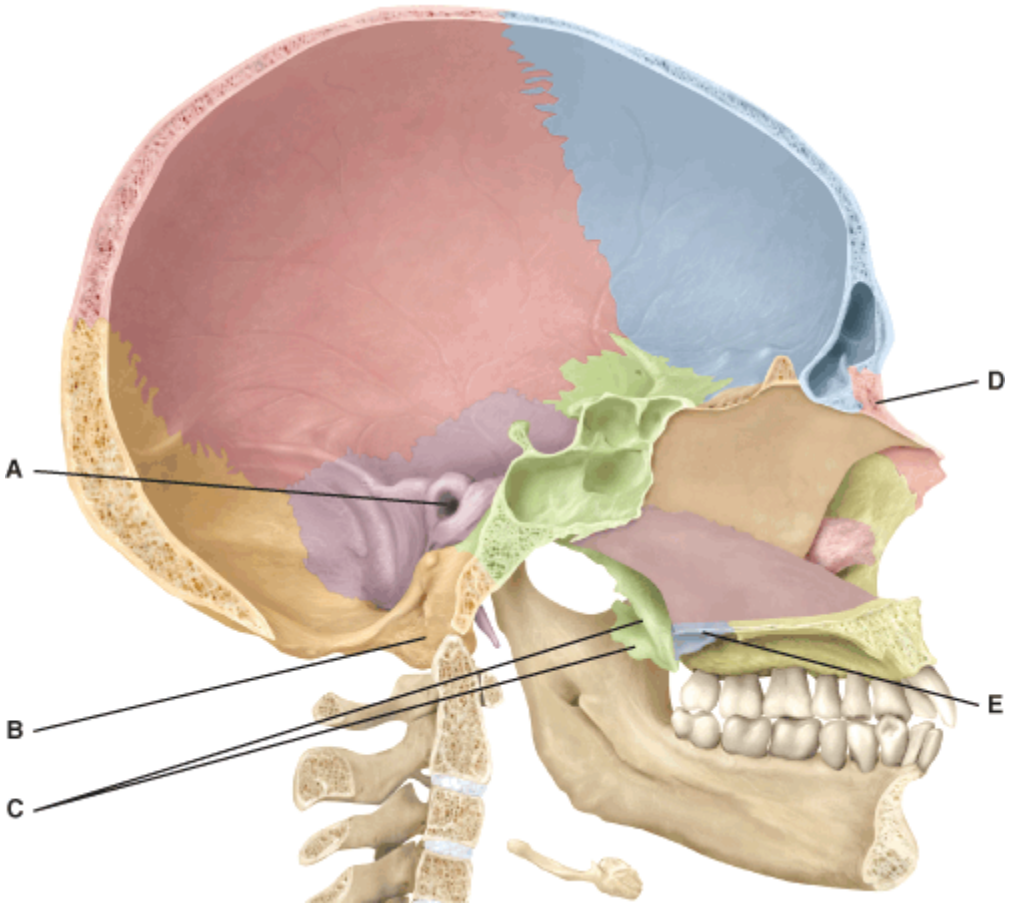


In the diagram, where is the palatine bone?

a) A
b) B
c) C
d) D
e) E

Ans: E
Difficulty: medium
Feedback: 7.4

55.

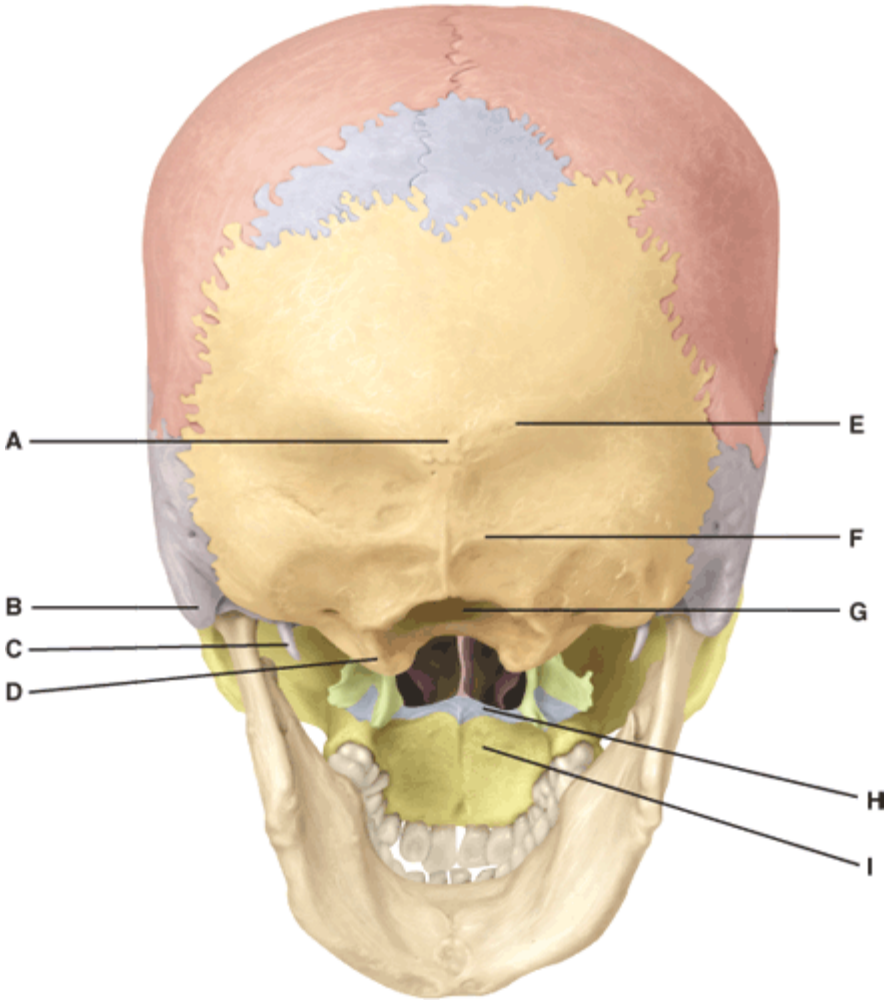


In the diagram, where is the nasal bone?

a) A
b) B
c) C
d) D
e) E

Ans: D
Difficulty: medium
Feedback: 7.4

56.

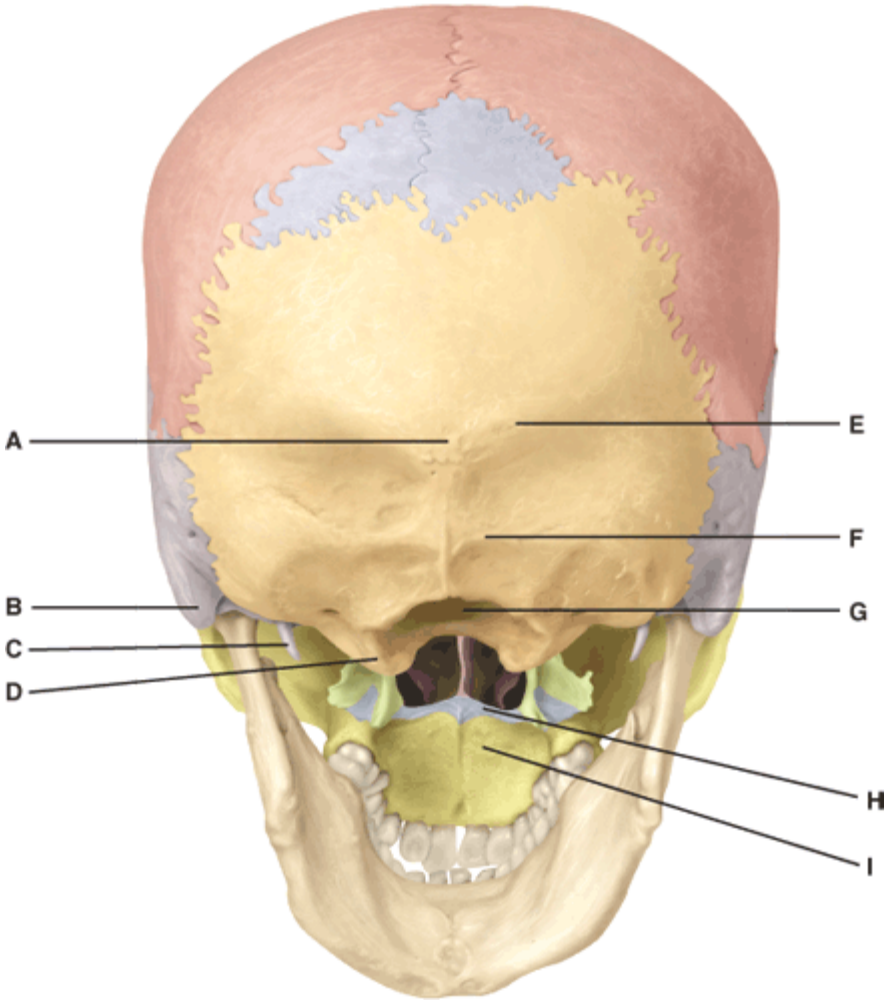


In the diagram, where is the mastoid process?

a) A
b) B
c) C
d) D
e) G

Ans: B
Difficulty: medium
Feedback: 7.4

57.

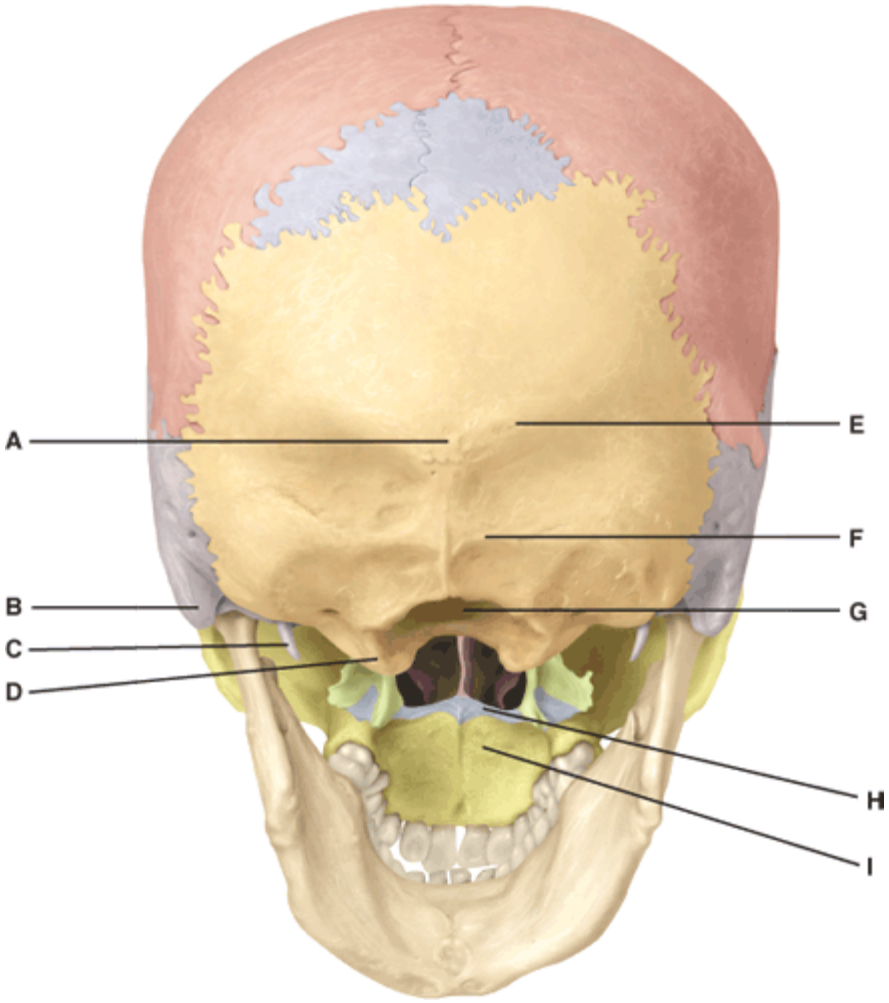


In the diagram, where is the superior nuchal line?

a) A
b) E
c) F
d) H
e) I

Ans: B
Difficulty: medium
Feedback: 7.4

58.

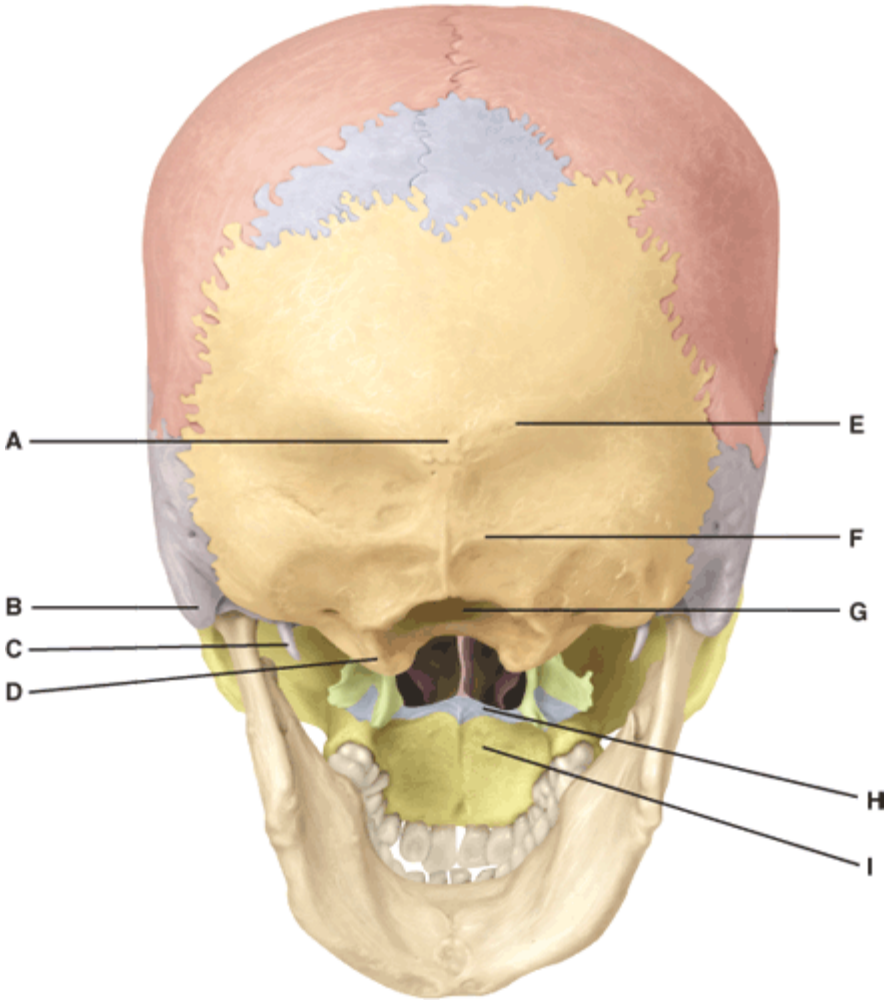


In the diagram, where is the foramen magnum?

a) C
b) D
c) G
d) H
e) I

Ans: C
Difficulty: medium
Feedback: 7.4

59.

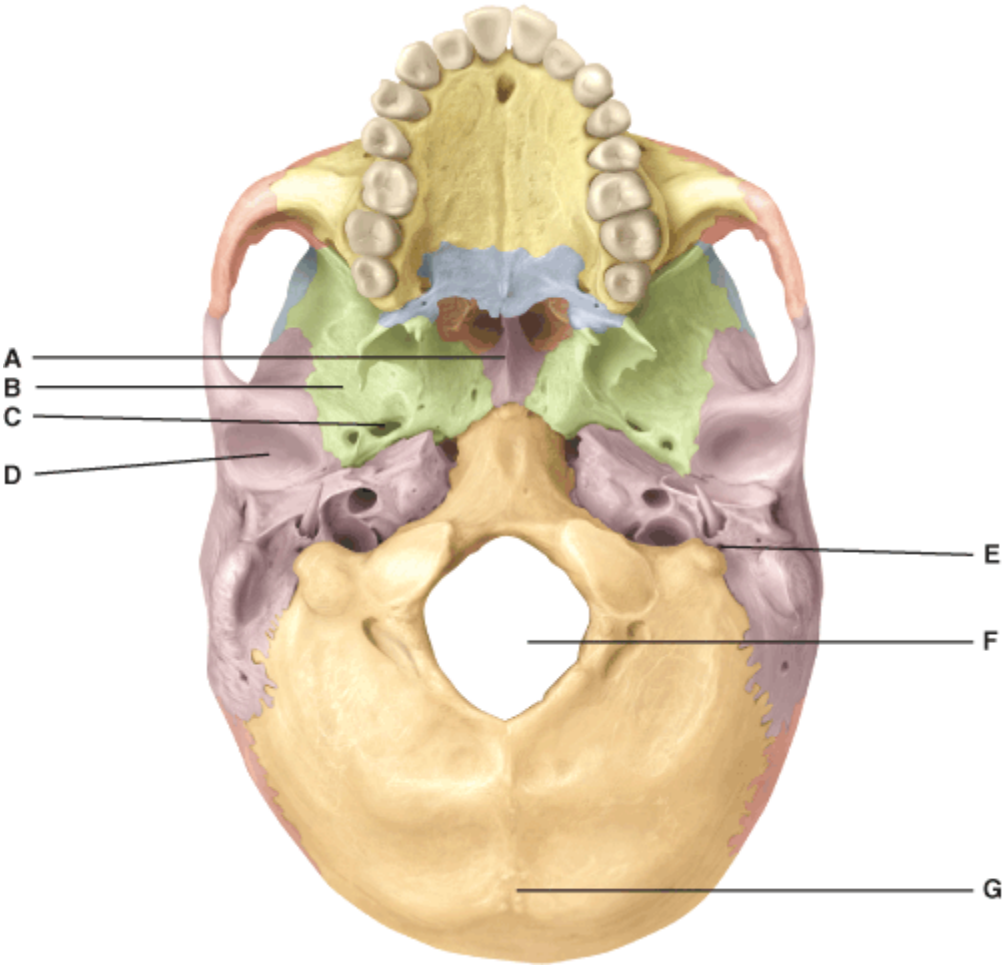


In the diagram, where is the inferior nuchal line?

a) B
b) E
c) F
d) G
e) I

Ans: C
Difficulty: medium
Feedback: 7.4

60.

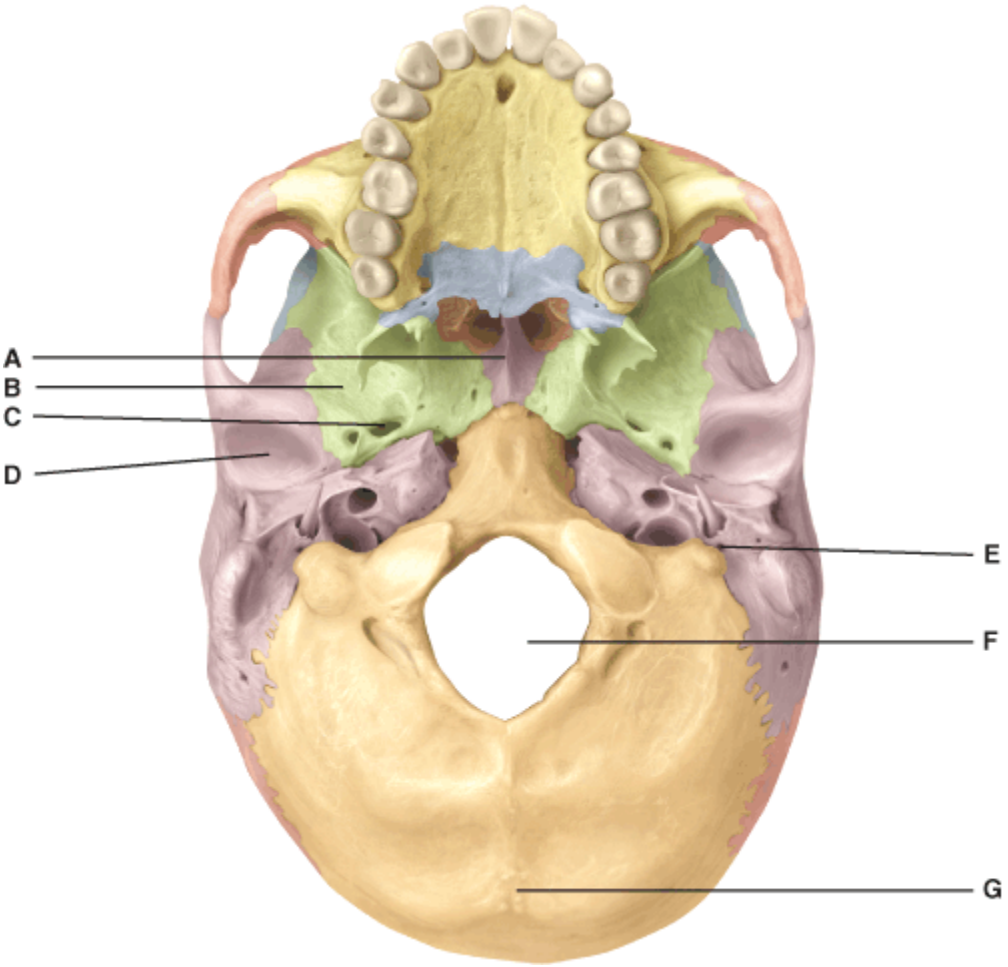


In the diagram, where is the crista galli?

a) A
b) B
c) C
d) D
e) None of the above

Ans: E
Difficulty: medium
Feedback: 7.4

61.

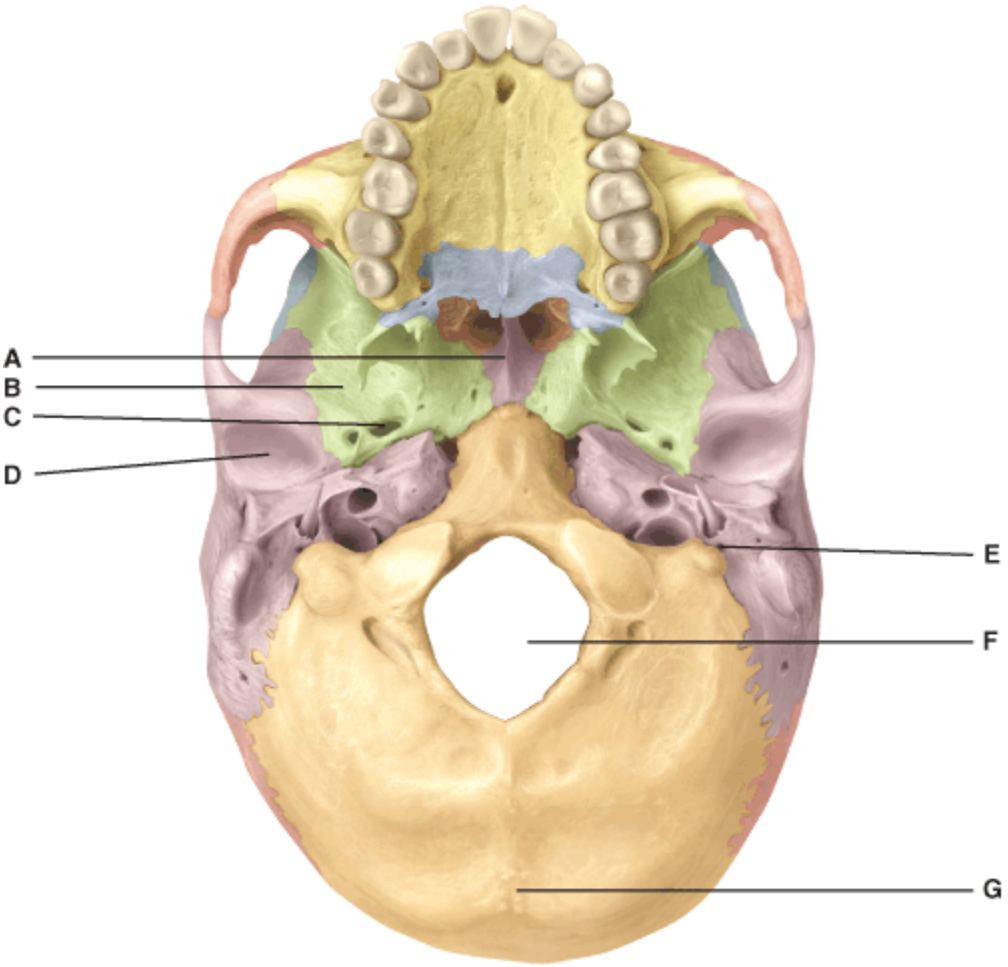


In the diagram, where is the mandibular fossa?

a) B
b) C
c) D
d) E
e) F

Ans: C
Difficulty: medium
Feedback: 7.4

62.

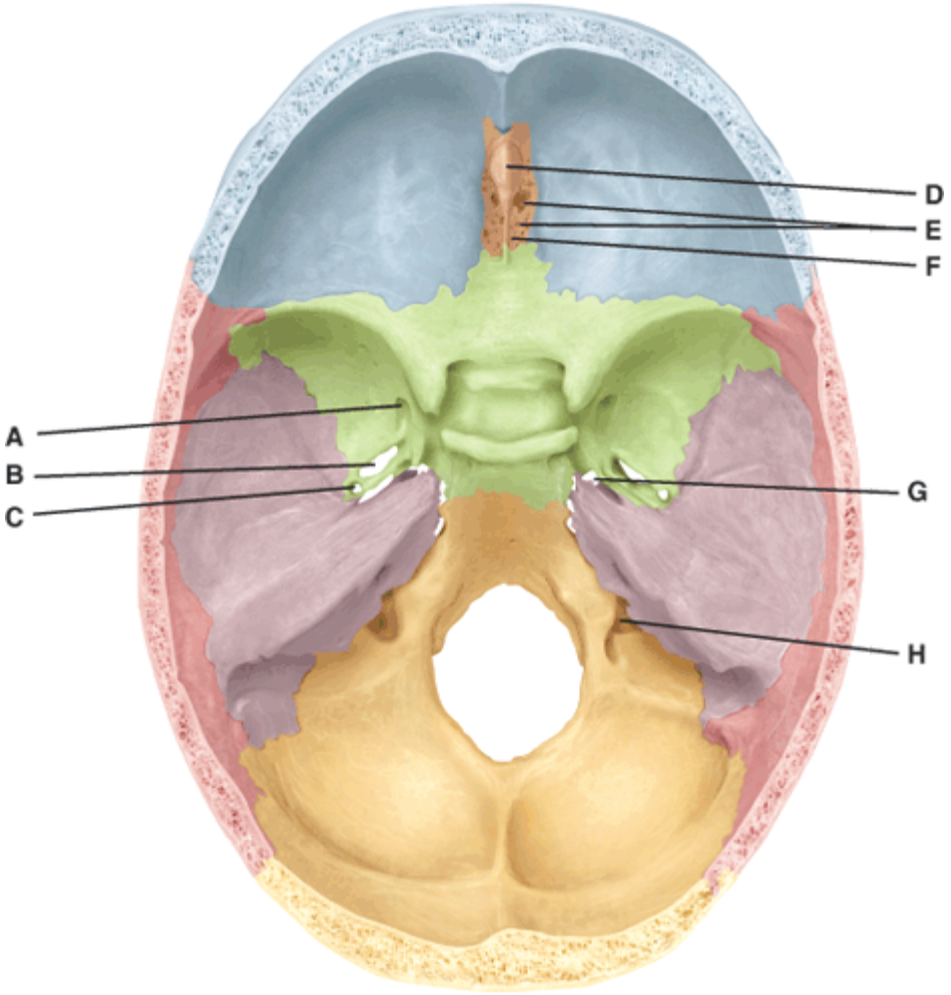


In the diagram, where is the foramen ovale?

a) C
b) D
c) E
d) F
e) G

Ans: A
Difficulty: medium
Feedback: 7.4

63.

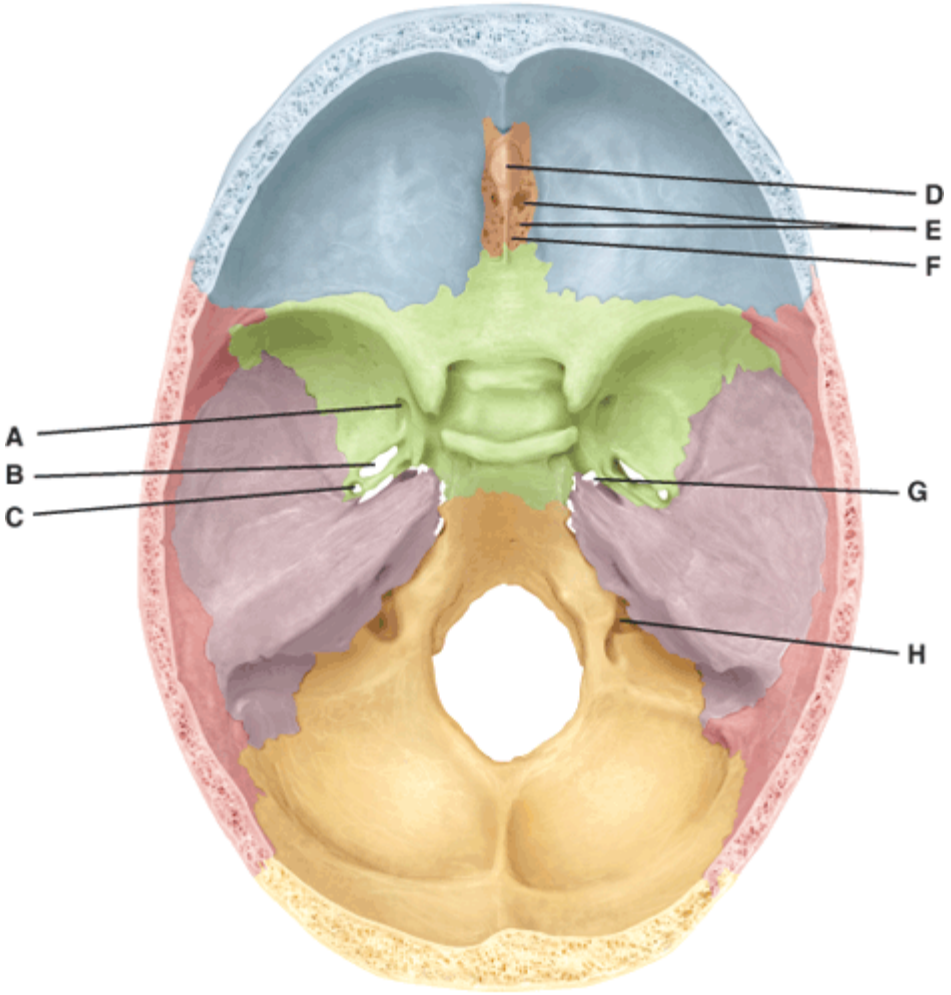


In the diagram, where is the foramen spinosum?

a) A
b) B
c) C
d) G
e) H

Ans: C
Difficulty: medium
Feedback: 7.4

64.

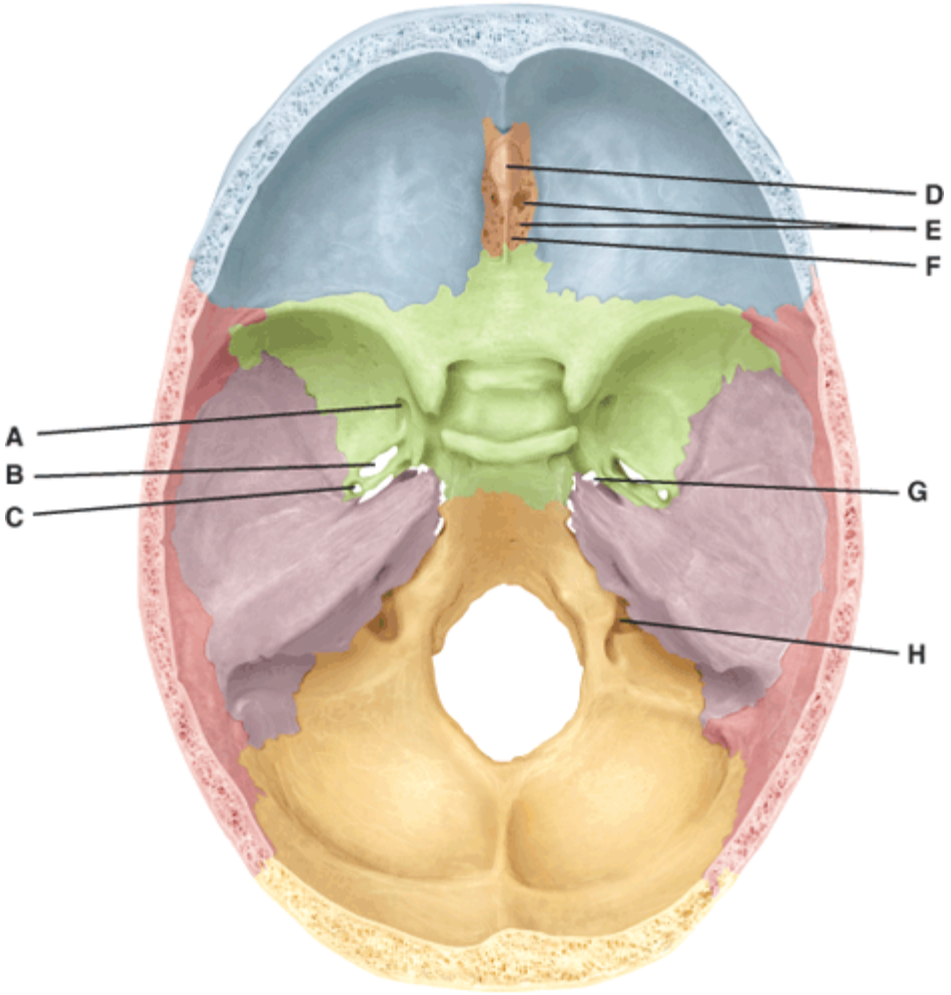


In the diagram, where is the cribiform plate?

a) D
b) A
c) F
d) G
e) H

Ans: C
Difficulty: medium
Feedback: 7.4

65.

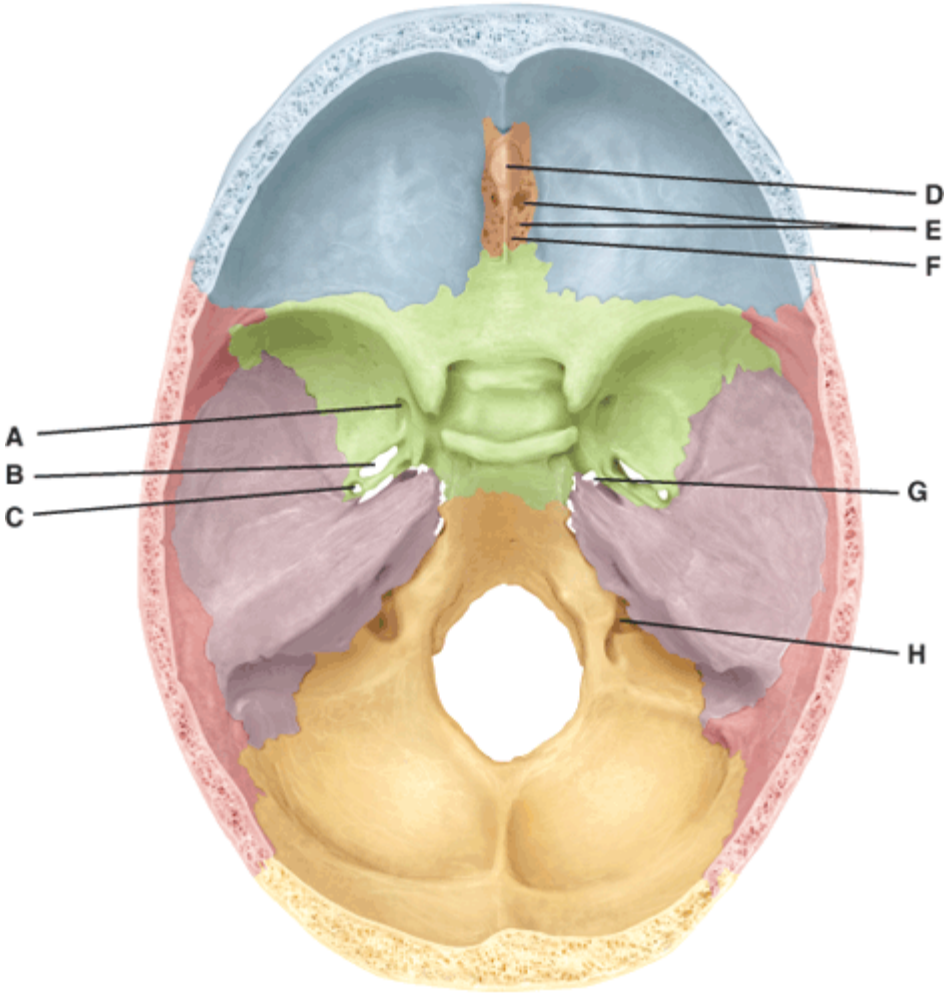


In the diagram, where is the foramen rotundrum?

a) A
b) B
c) C
d) E
e) F

Ans: A
Difficulty: medium
Feedback: 7.4

66.

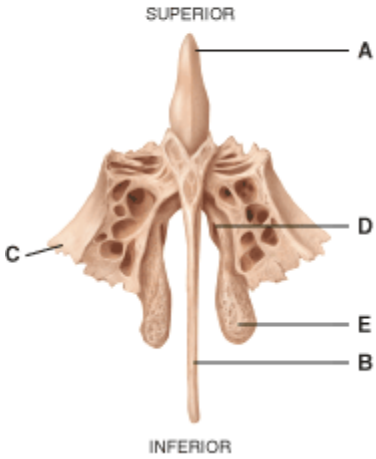


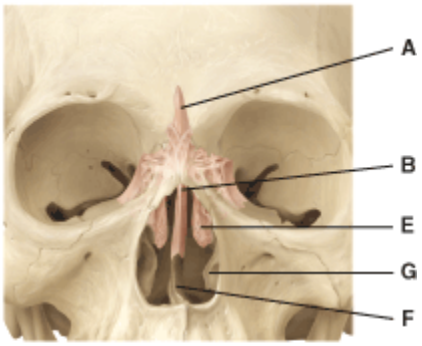
In the diagram, where is the olfactory foramina?

a) C
b) D
c) E
d) H
e) G

Ans: C
Difficulty: medium
Feedback: 7.4

67.



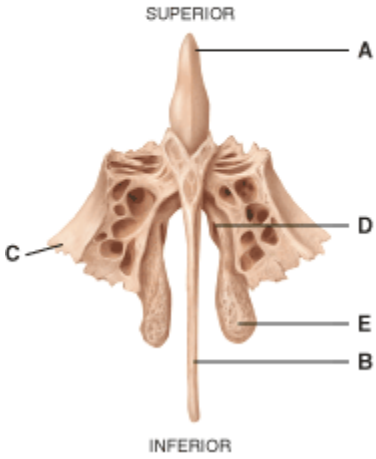


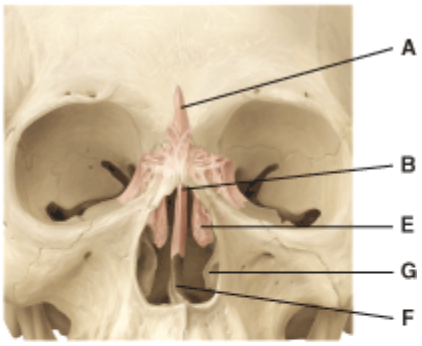
In the diagram, these are the only bones involved in the sense of smell.

a) C
b) D
c) E
d) F
e) G

Ans: B
Difficulty: hard
Feedback: 7.4

68.



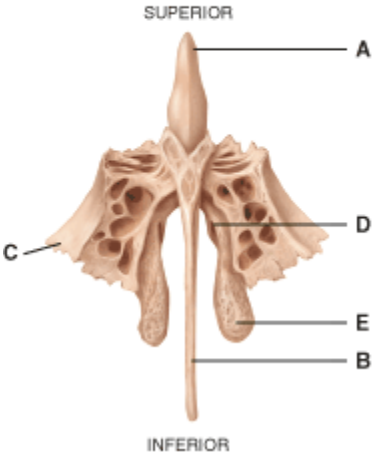


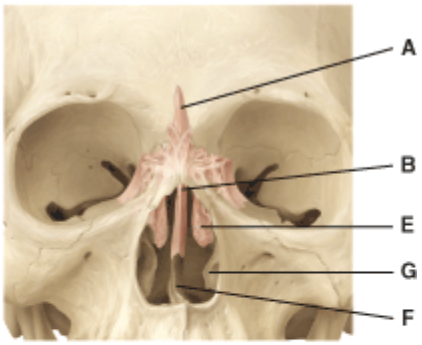
In the diagram, where is the lateral mass?

a) A
b) B
c) C
d) D
e) E

Ans: C
Difficulty: medium
Feedback: 7.4

69.



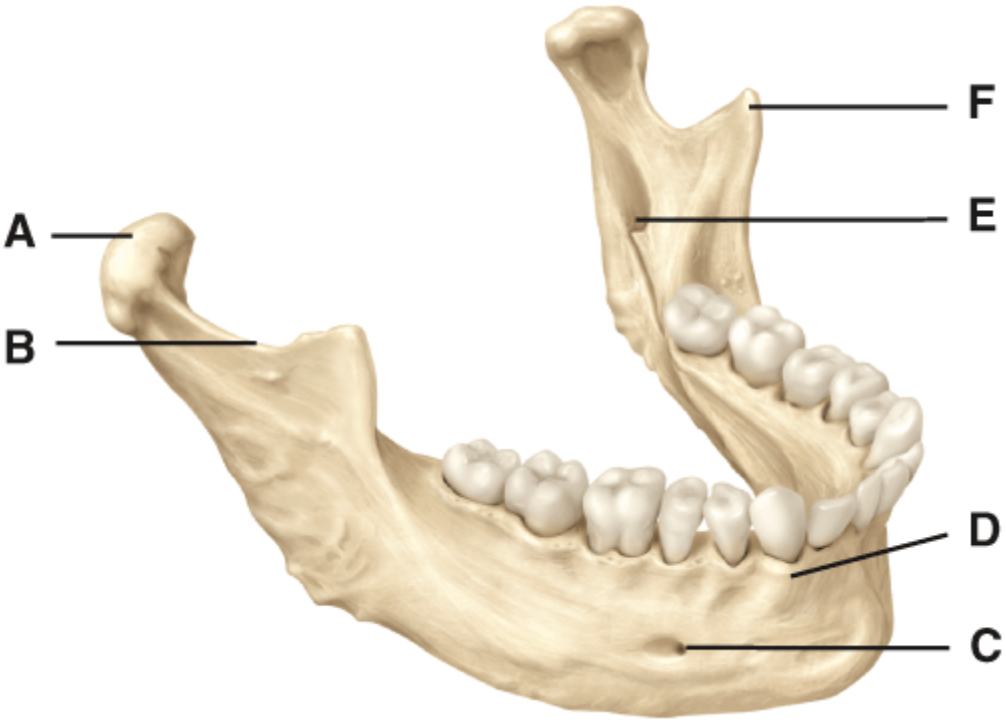


In the diagram, where is the perpendicular plate?

a) A
b) B
c) C
d) F
e) G

Ans: B
Difficulty: medium
Feedback: 7.4

70.

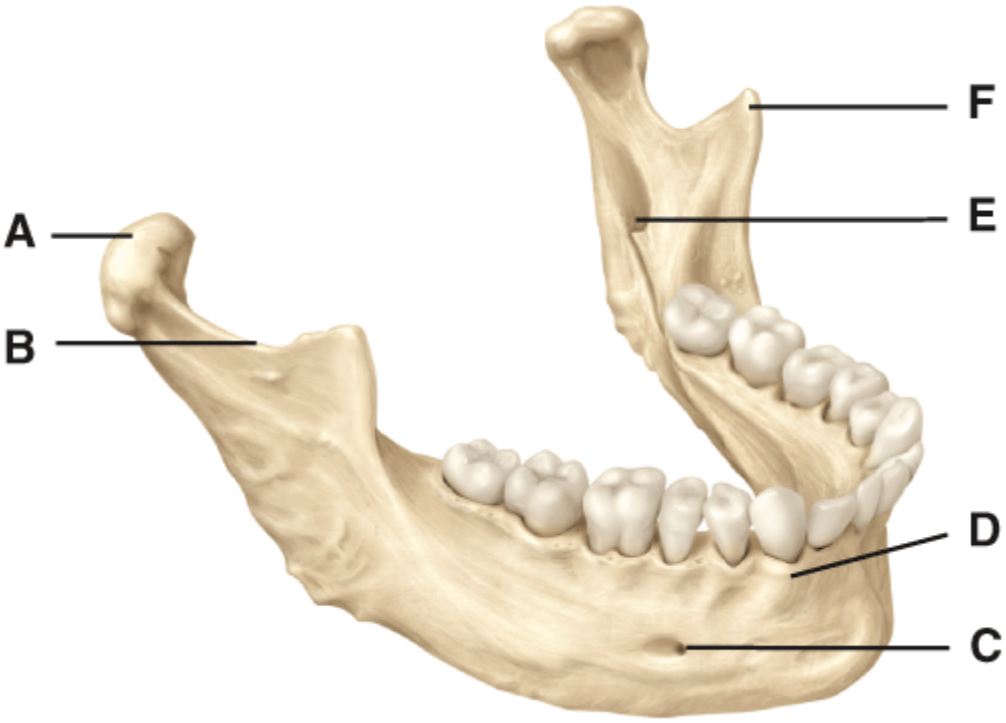


Where is the mental foramen in the diagram?

a) C
b) D
c) E
d) F
e) None of the above

Ans: A
Difficulty: medium
Feedback: 7.4

71.

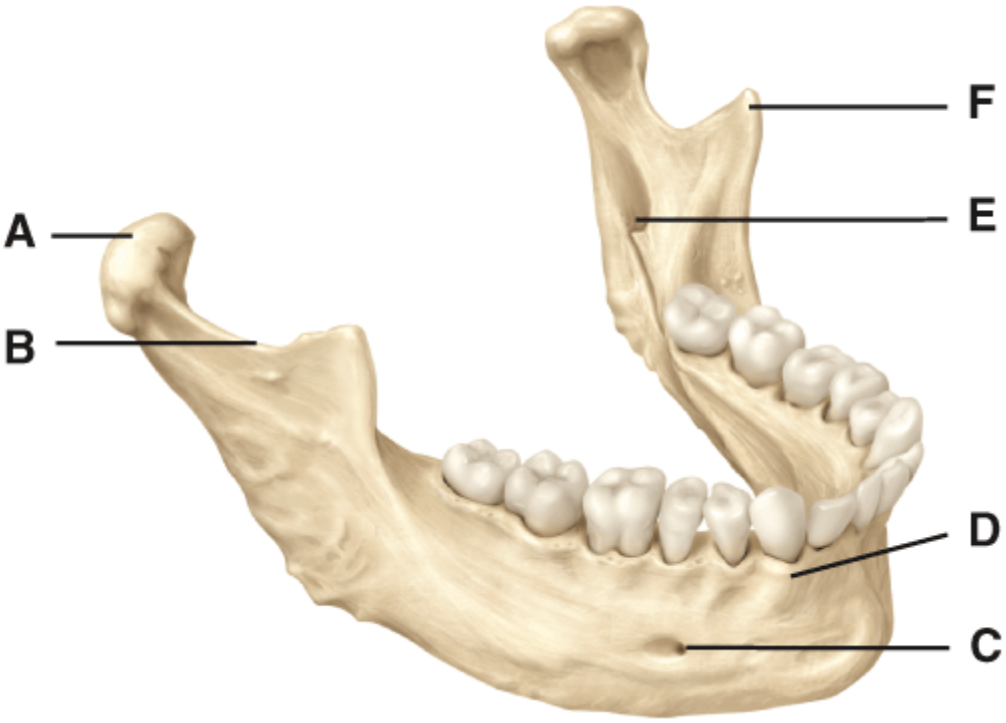


Where is the mandibular notch in the diagram?

a) A
b) B
c) E
d) F
e) None of the above

Ans: B
Difficulty: medium
Feedback: 7.4

72.

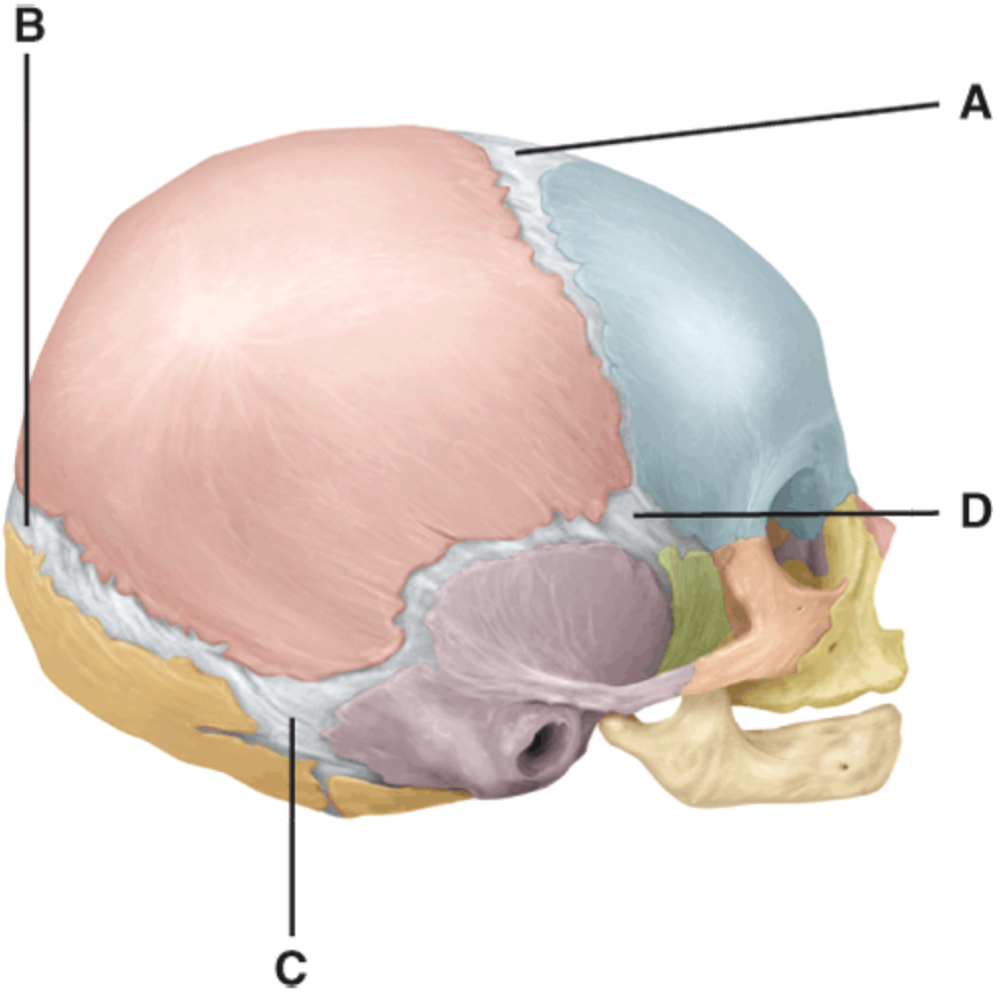


Where is the coronoid process in the diagram?

a) A
b) B
c) E
d) F
e) None of the above

Ans: D
Difficulty: medium
Feedback: 7.4

73.

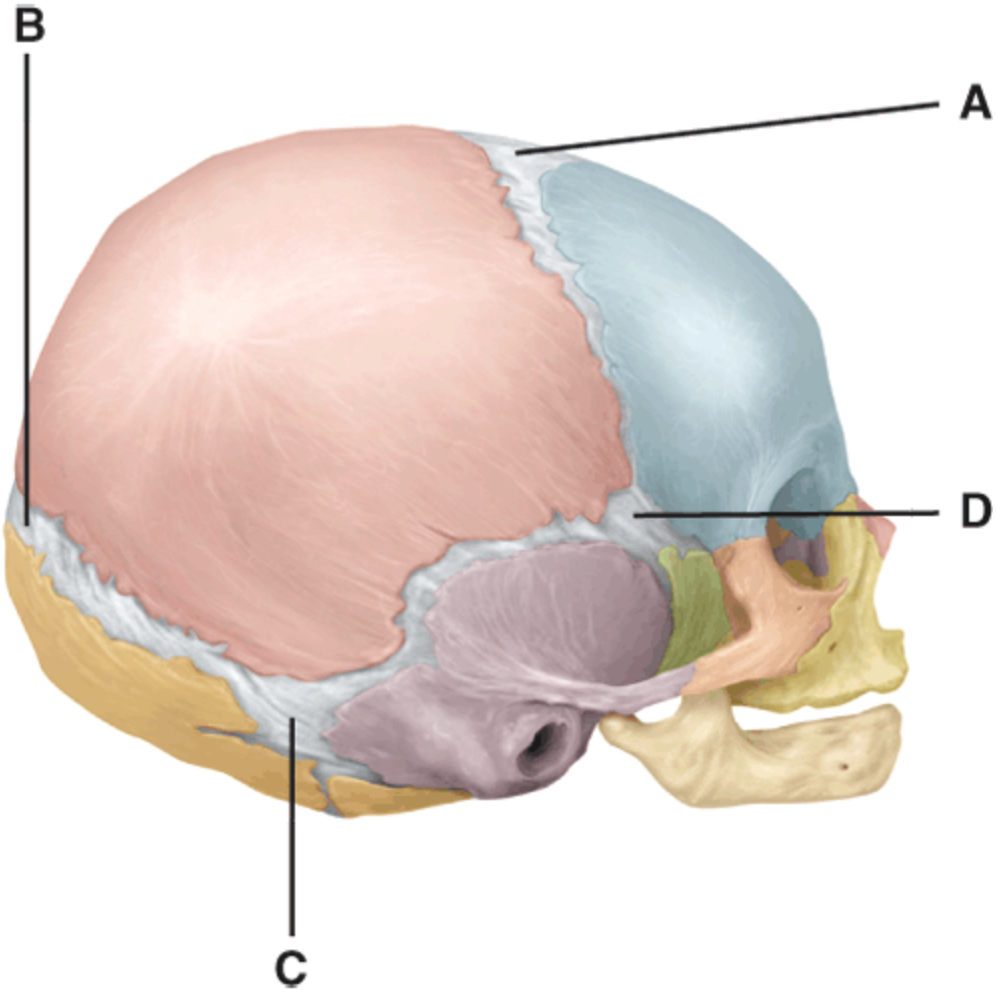


This fontanel usually closes within 18 to 24 months after birth.

a) A
b) B
c) C
d) D
e) Both A and C

Ans: A
Difficulty: medium
Feedback: 7.4

74.

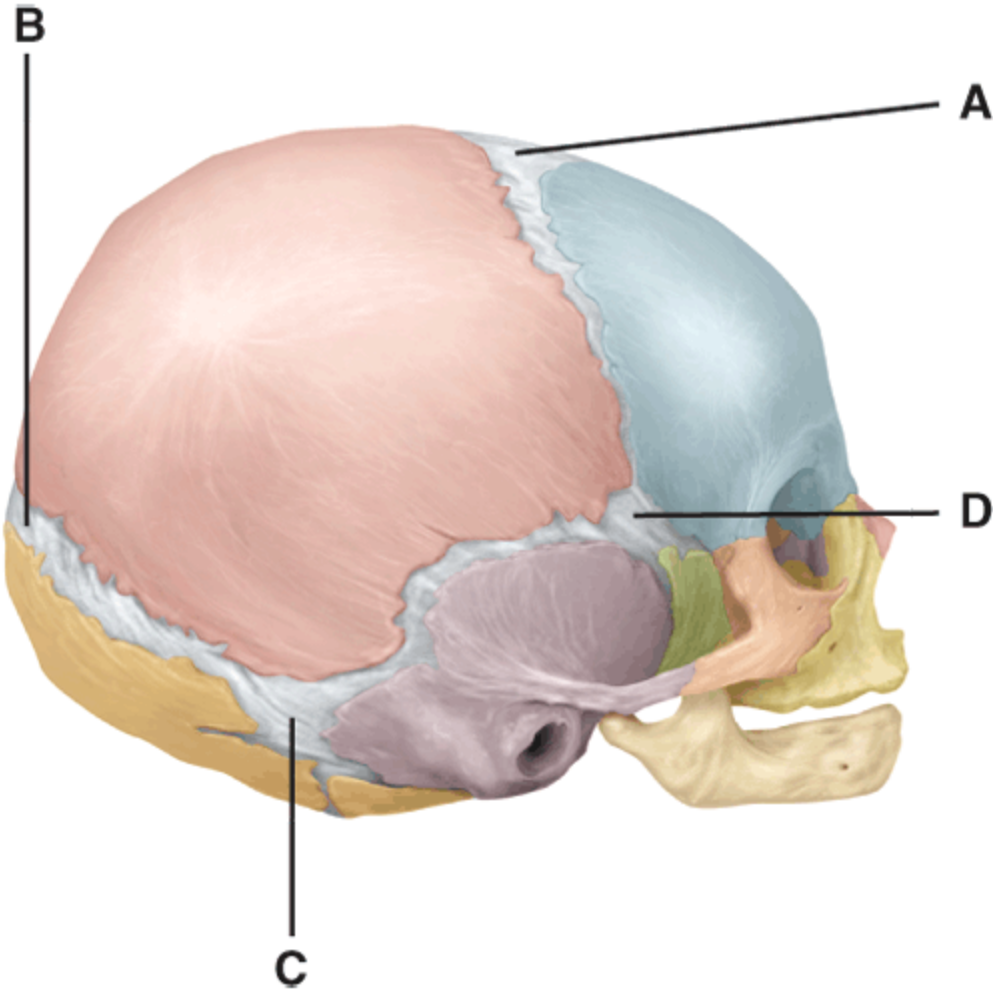


This fontanel usually closes about two months after birth.

a) A
b) B
c) C
d) D
e) None of the above

Ans: B
Difficulty: medium
Feedback: 7.4

75.

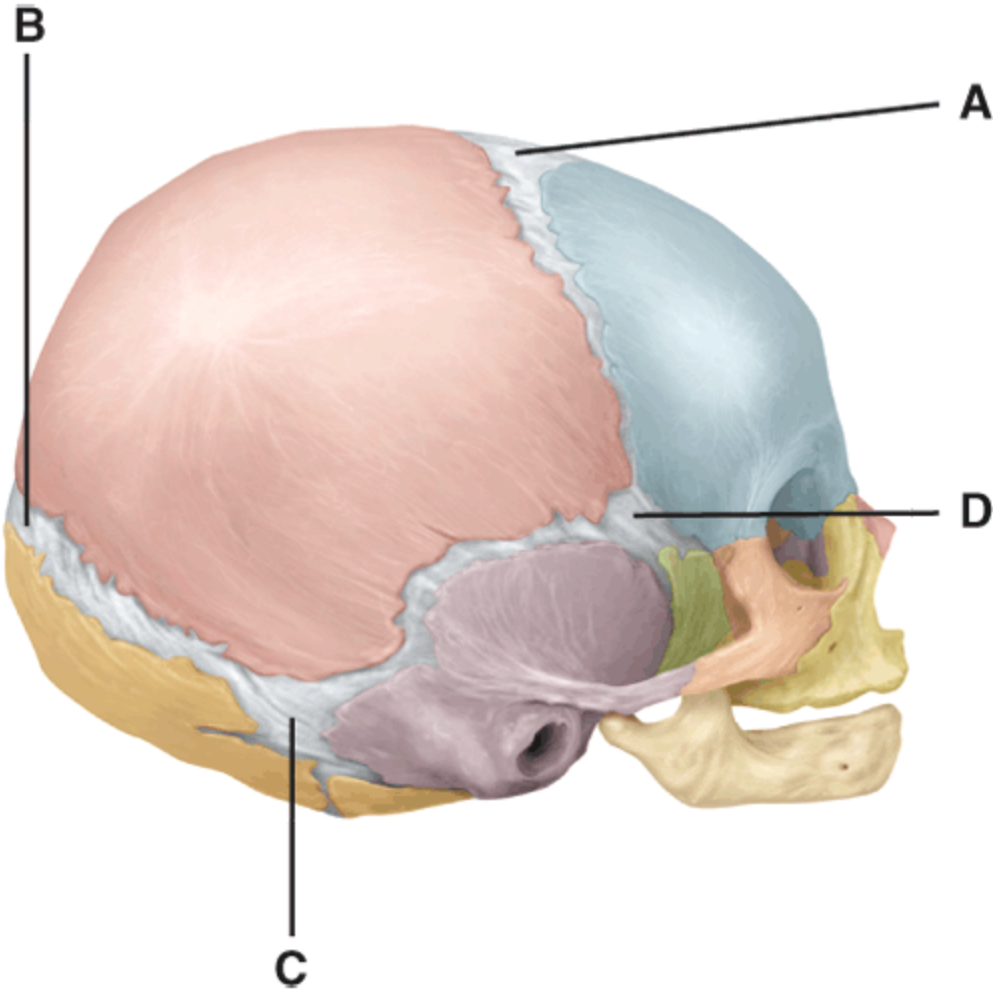


These are the smallest fontanels in size at birth.

a) A
b) B
c) C
d) D
e) Both A and D

Ans: D
Difficulty: medium
Feedback: 7.4

76.

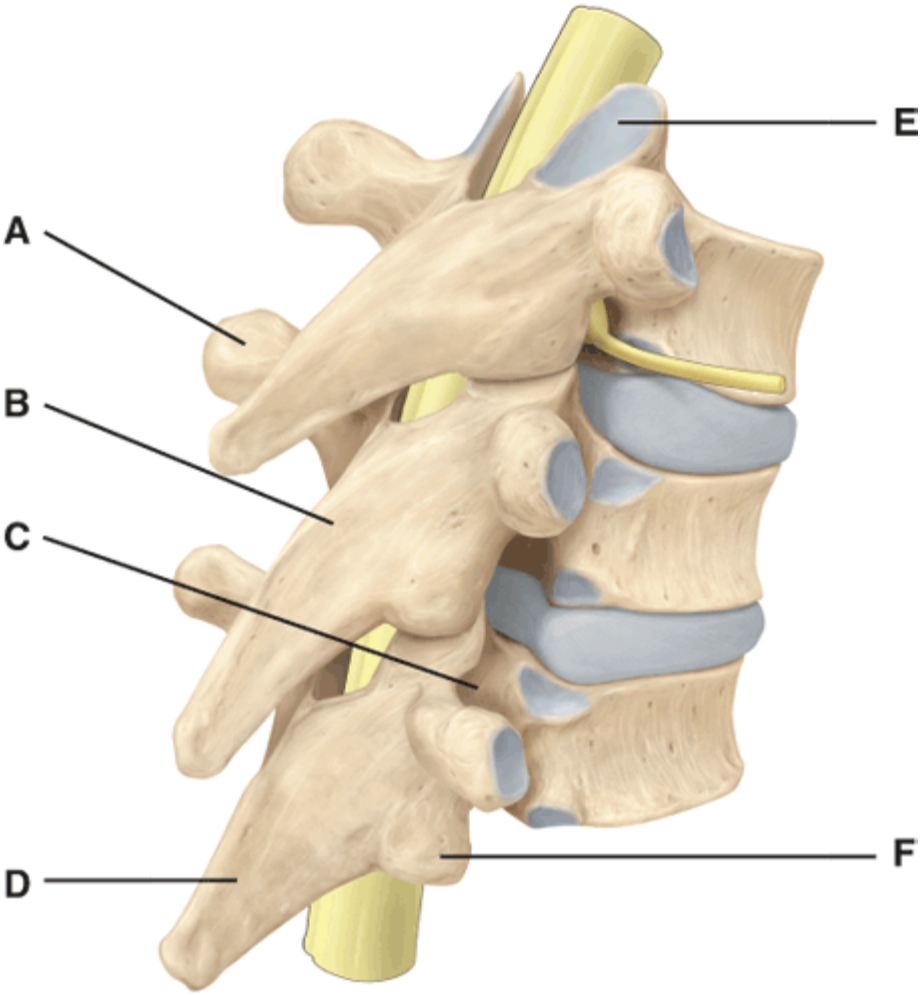


These fontanels begin closing within the first month or two after birth but do not completely close until close to one year after birth.

a) A
b) B
c) C
d) D
e) All of the above

Ans: C
Difficulty: medium
Feedback: 7.4

77.

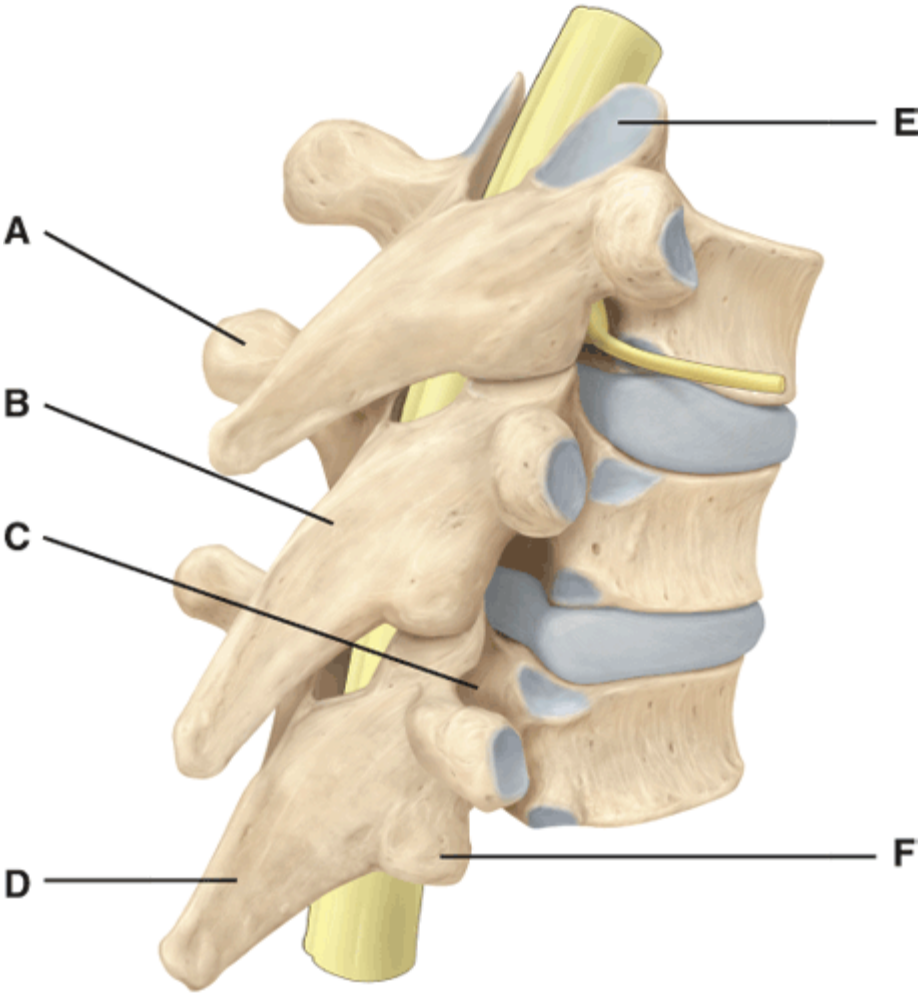


Where is the inferior articular process in the diagram?

a) C
b) D
c) E
d) F
e) None of the above

Ans: D
Difficulty: medium
Feedback: 7.6

78.

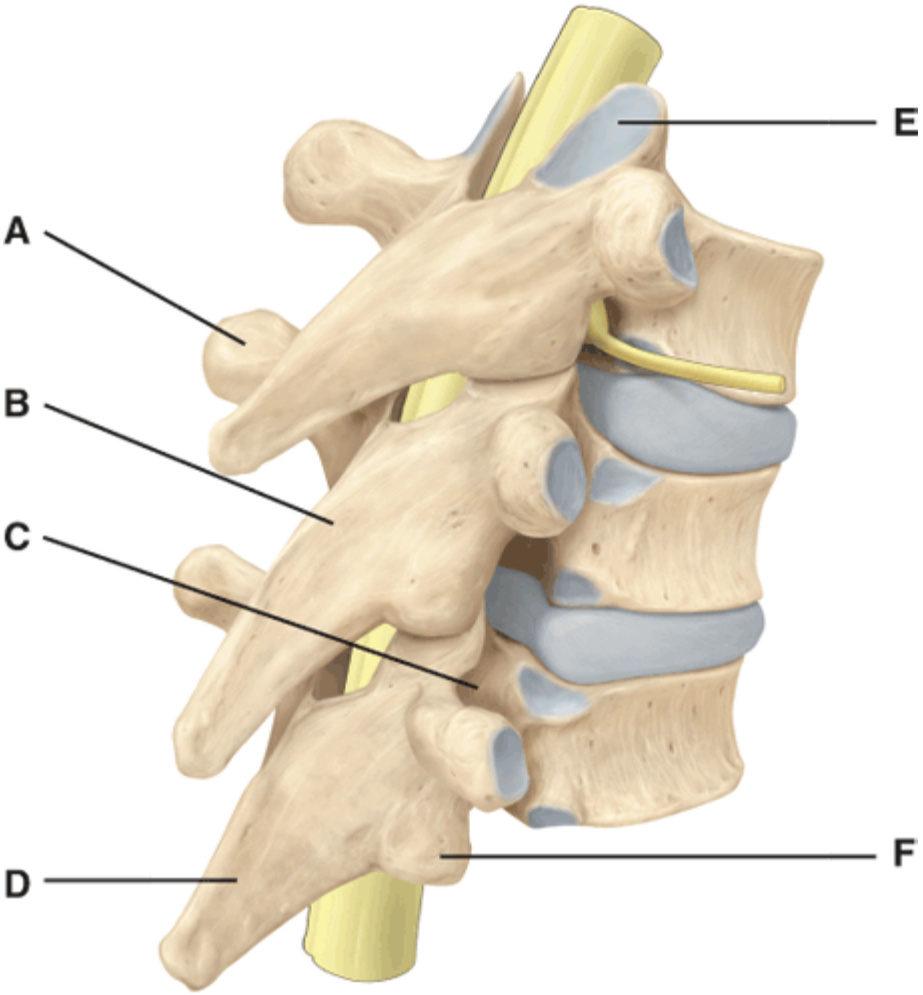


In the diagram, where is lamina of the vertebral arch?

a) A
b) B
c) C
d) D
e) F

Ans: B
Difficulty: medium
Feedback: 7.6

79.

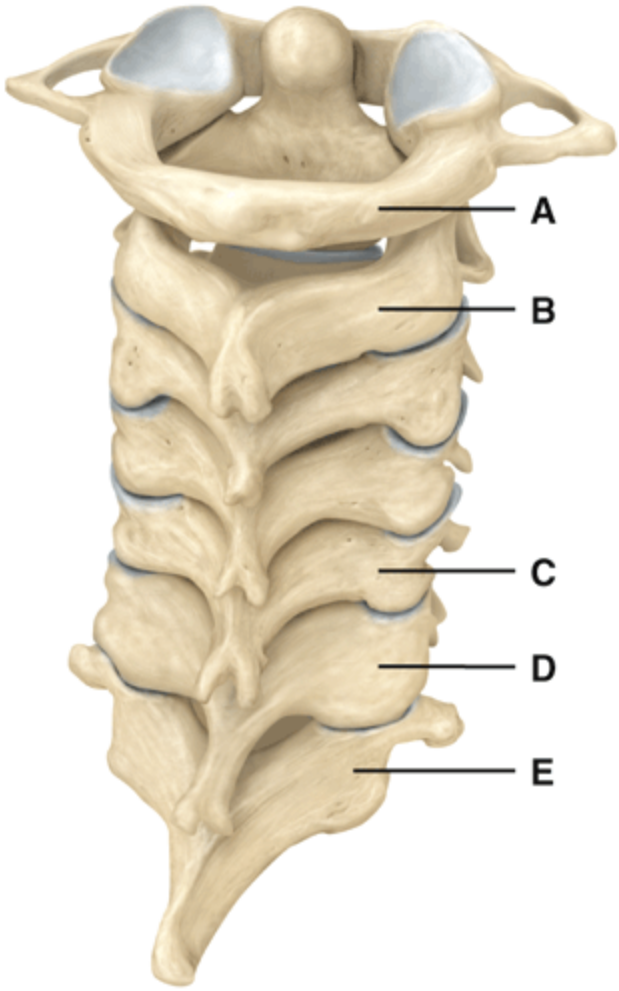


Where is the spinous process in the diagram?

a) B
b) C
c) D
d) E
e) F

Ans: C
Difficulty: medium
Feedback: 7.6

80.

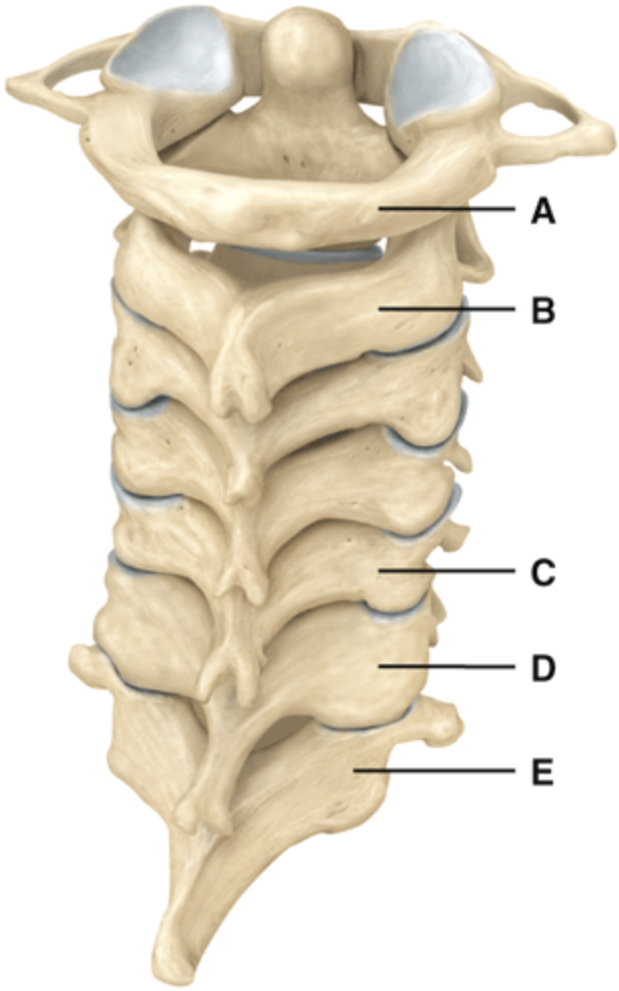


Which of the cervical vertebrae are responsible for the ability to move your head from side to side signifying “no”?

a) A
b) B
c) C
d) D
e) E

Ans: B
Difficulty: medium
Feedback: 7.6

81.

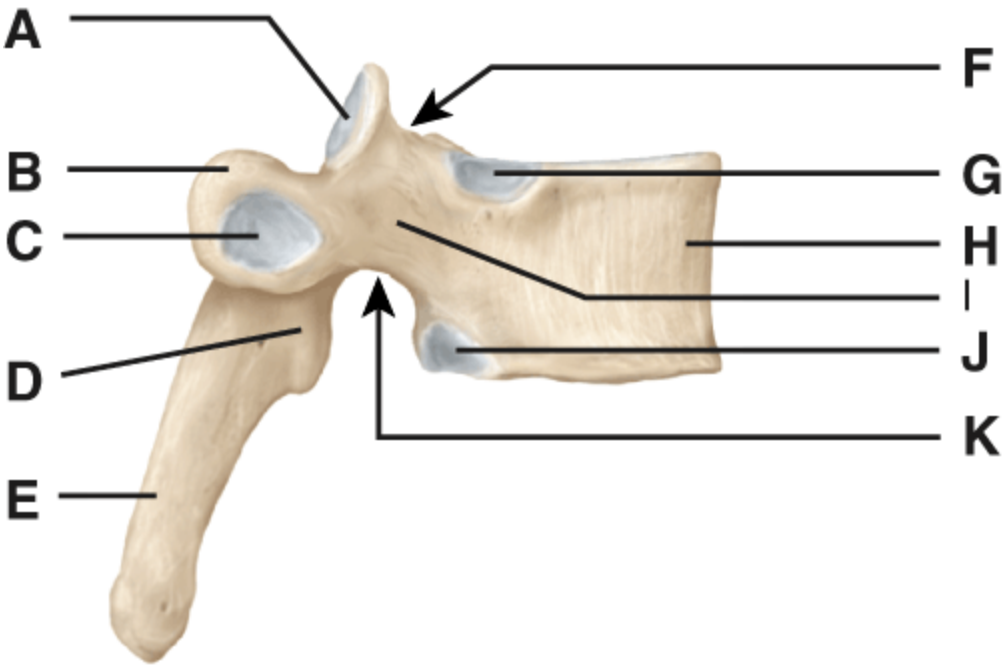


Which of the cervical vertebrae are responsible for permitting the movement of the head seen when saying “yes”?

a) A
b) B
c) C
d) D
e) E

Ans: A
Difficulty: medium
Feedback: 7.6

82.

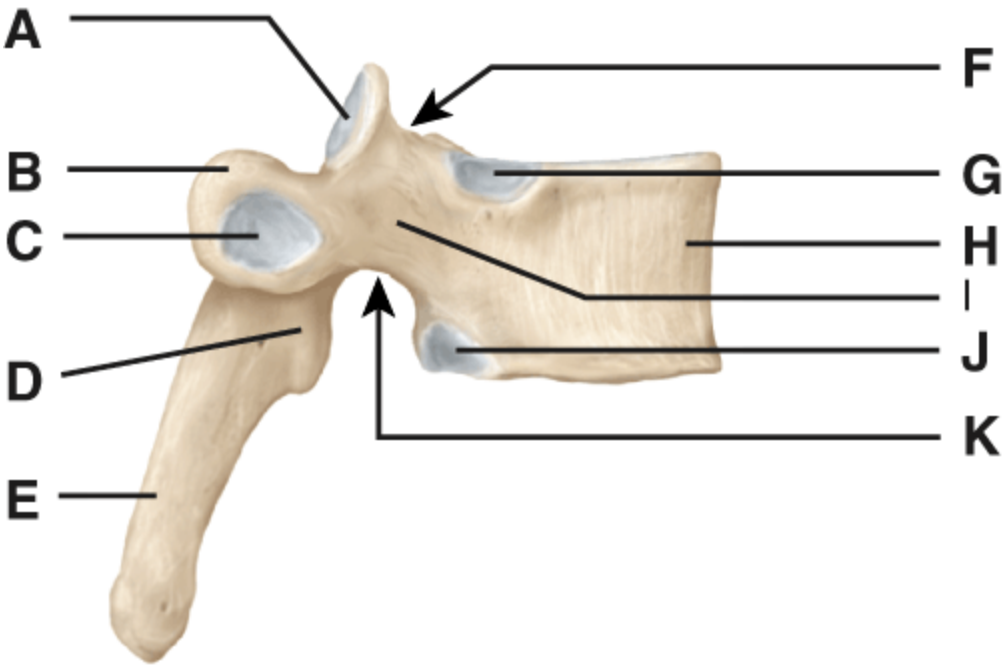


Where is the superior vertebral notch?

a) A
b) B
c) F
d) G
e) K

Ans: C
Difficulty: medium
Feedback: 7.6

83.

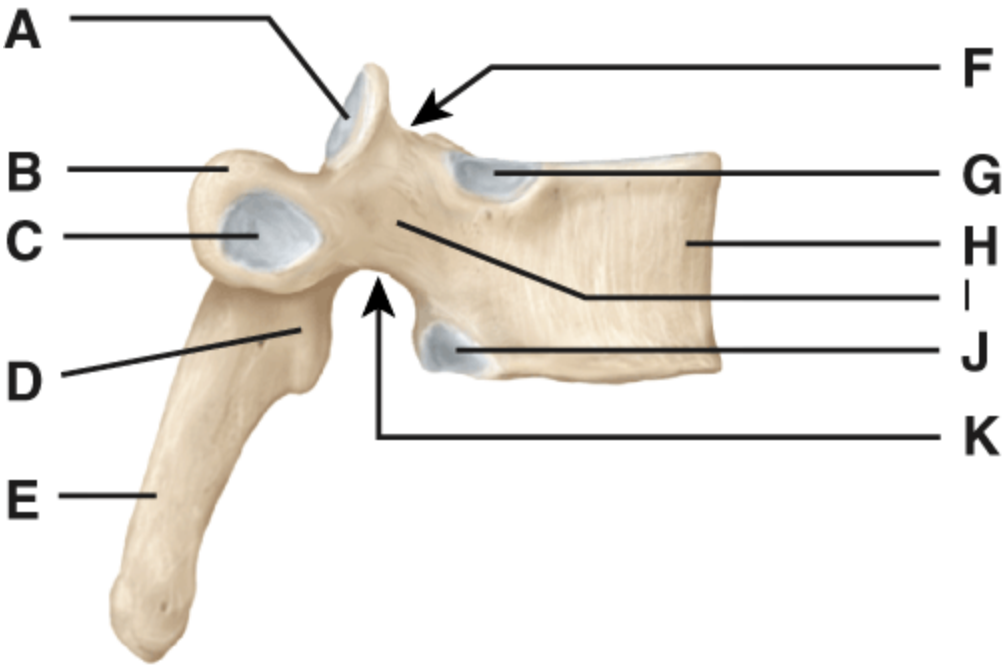


Where is the facet for articular part of the tubercle of the rib?

a) B
b) C
c) D
d) H
e) I

Ans: B
Difficulty: medium
Feedback: 7.6

84.

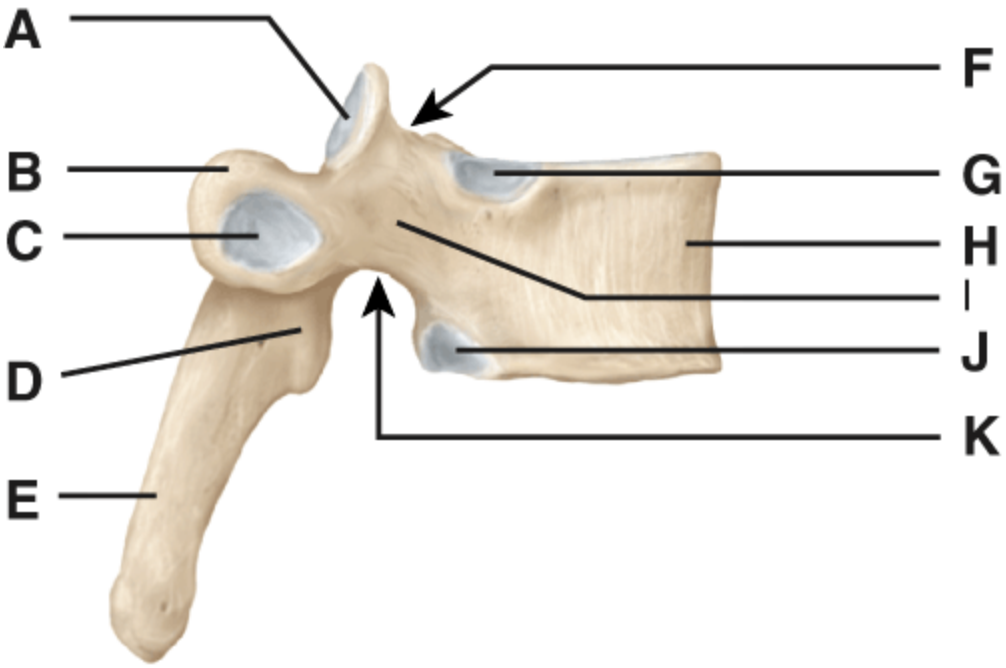


Where is the pedicle?

a) B
b) H
c) I
d) K
e) D

Ans: C
Difficulty: medium
Feedback: 7.6

85.

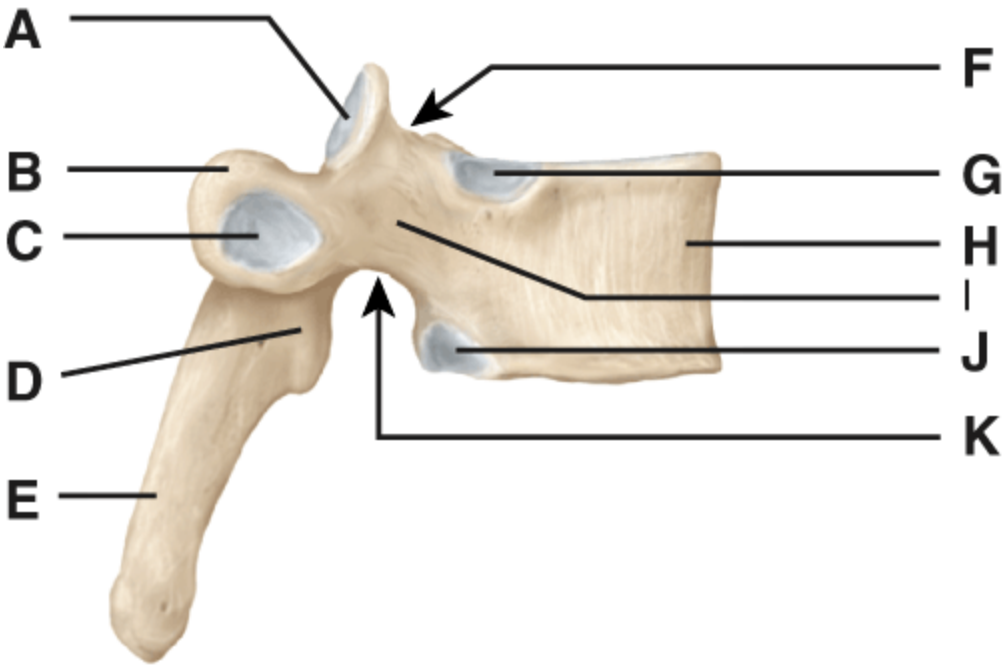


Where is the superior demifacet?

a) A
b) B
c) F
d) G
e) E

Ans: D
Difficulty: medium
Feedback: 7.6

86.

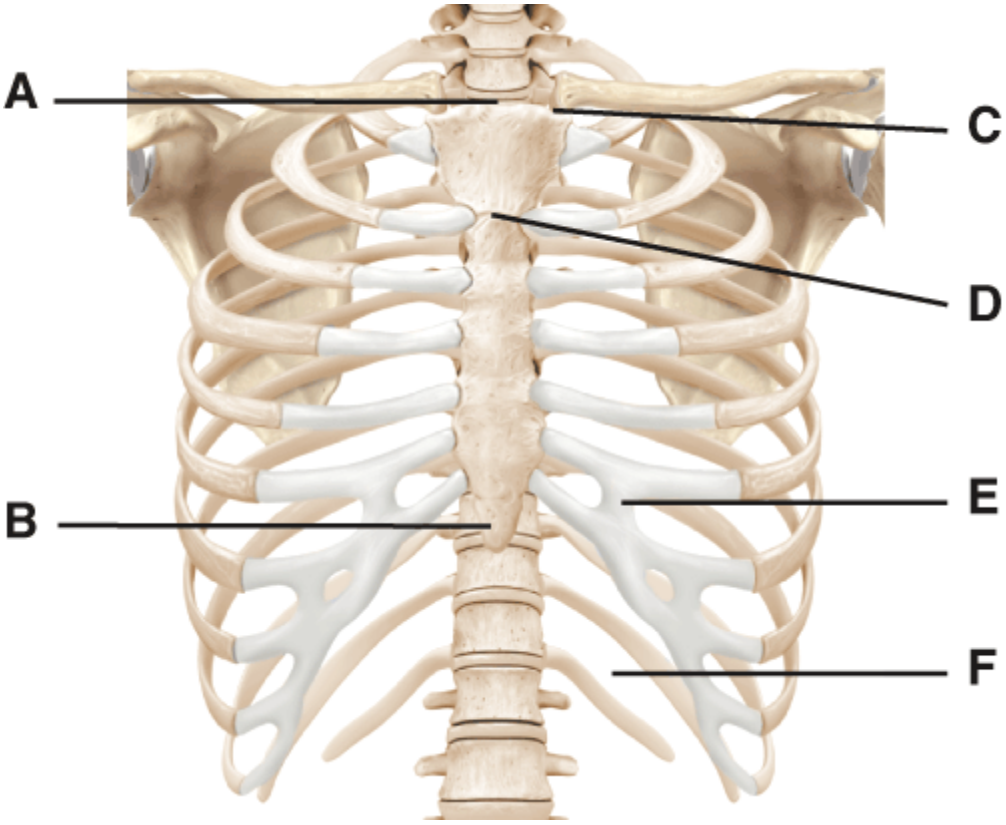


Where is the lamina?

a) C
b) D
c) H
d) I
e) J

Ans: B
Difficulty: medium
Feedback: 7.6

87.

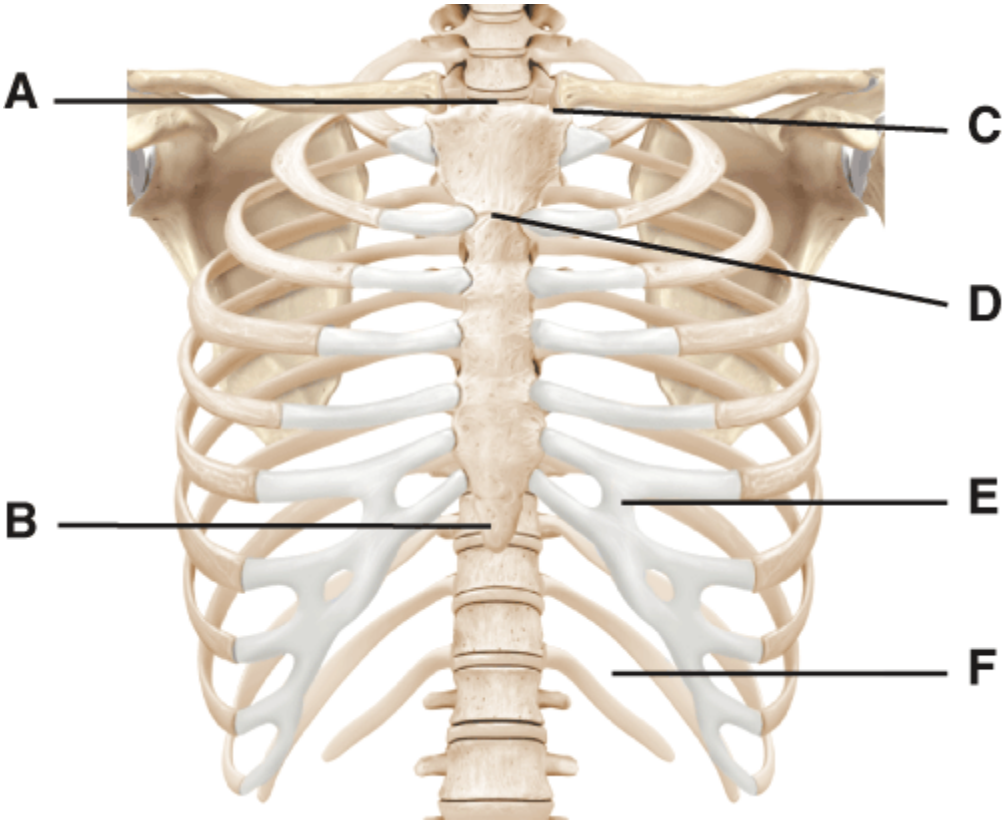


In the diagram, which part is most often broken during CPR?

a) A
b) B
c) D
d) D
e) E

Ans: B
Difficulty: hard
Feedback: 7.7

88.

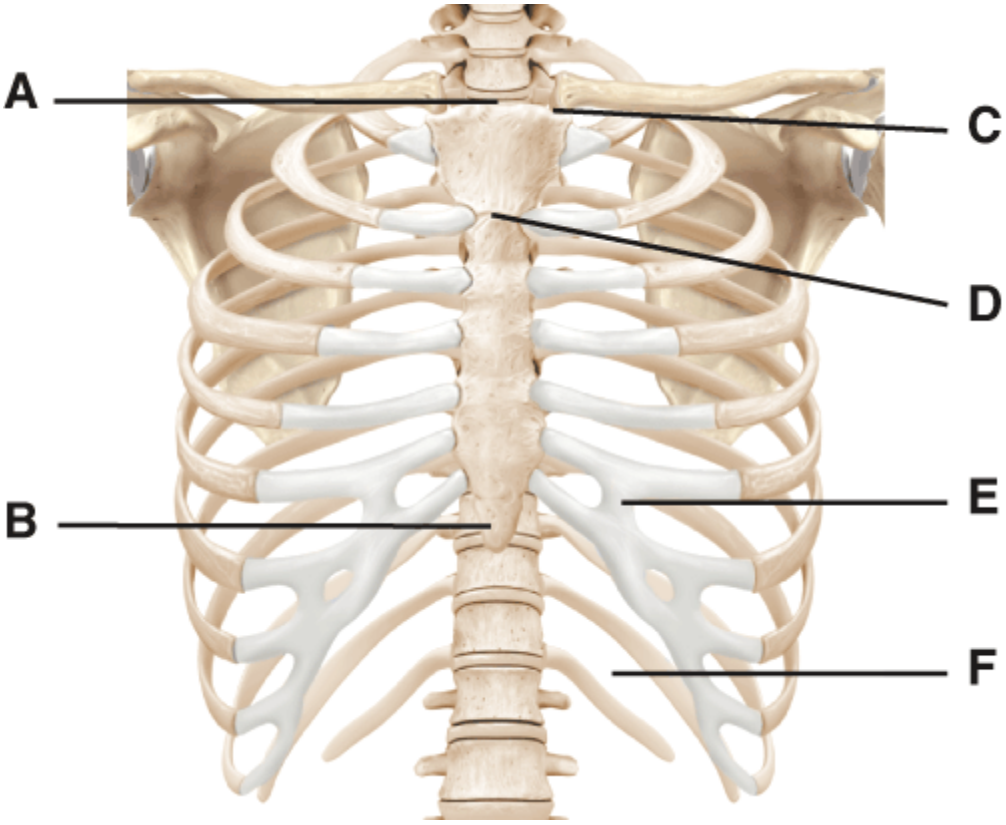


Where is the clavicular notch?

a) A
b) C
c) D
d) B
e) F

Ans: B
Difficulty: medium
Feedback: 7.7

89.



Where is the sternal angle?

a) A
b) C
c) D
d) E
e) F

Ans: C
Difficulty: medium
Feedback: 7.7