

# ULTRASOUND LECTURE SERIES

## Spine

### Objectives

At the conclusion of this presentation, students will be able to:

- Describe sonographic anatomy of the spine.
- Specify the general ultrasound scanning procedure to evaluate the spine.
- Define the risks, pathogenesis, and classification of neural tube defects.
- List the ultrasound findings associated with neural tube defects.

### Topics

1. Gross Anatomy
2. Sonographic Anatomy (Normal Spine)
  - Axial View
  - Coronal View
3. Meningocele
4. Myelomeningocele
5. Cranial Findings Associated With Spina Bifida
  - “Banana” Sign
  - “Lemon” Sign
  - Ventriculomegaly
6. Other Spinal Anomalies

### Review Questions

1. At 18-0/7-19-6/9 weeks’ gestation, what percent of comprehensive ultrasound exams can be achieved?
  - A. 55%.
  - B. 67%.
  - C. 75%.
  - D. 82%.
  - E. 96%.

## Winston A. Campbell, MD

*Obstetrics and Gynecology  
Maternal-Fetal Medicine  
University of Connecticut Health Center  
School of Medicine  
John Dempsey Hospital  
Farmington, Connecticut*

2. The majority (95%) of people have how many vertebrae?
  - A. 26.
  - B. 27.
  - C. 28.
  - D. 29.
  - E. 30.
3. The neural tube closes by what days of development?
  - A. 24–26 days.
  - B. 25–27 days.
  - C. 26–28 days.
  - D. 27–29 days.
  - E. 28–30 days.
4. Which of the following findings can be seen in a normal fetus?
  - A. Arnold-Chiari type II malformation.
  - B. Lemon sign.
  - C. Ventriculomegaly.
  - D. Banana sign.
  - E. Meningocele.
5. The figure of greater than or equal to 90% is applicable to which of the following statements?
  - A. The percentage of open neural tube defects that can be identified by maternal serum screen and targeted ultrasound.
  - B. The percentage of cases of neural tube defects that occur with a prior family history of neural tube defects.
  - C. The percentage of patients who will undergo a medical termination of the pregnancy once a neural tube defect is diagnosed.
  - D. None of the above.
  - E. All of the above.