

## NEONATAL LUMBOSACRAL SPINE:

- Prep: None. The patient should be newborn to approximately six months.
- Basic Principles: Use highest frequency linear transducer that permits penetration of the soft tissues. Patient should be in the prone position with the abdomen placed over a pillow and knees tucked under.
- Examination should be performed as follows:
  - Begin with longitudinal imaging. Identify the sacral elements, and count the vertebral bodies as you scan cephalad to the level of the lower thoracic spine (on each image taken, at least one of the vertebral bodies should be labeled as to the level, i.e. S1 or L3, etc). The spinal cord should be found and then followed inferiorly and/or a thickened filum or tethered cord should be identified. Document position of the tip of conus (normal at or above L2-3 disc space). A cine clip should be taken to document the normal pulsations in the cord. A logicview image should be obtained to visualize the lower thoracic spine through the sacrum.
  - Transverse images should be obtained at the conus progressing inferior to the level of the termination of the filum with the diameter of the filum measured (normal filum thickness is <2mm); again, vertebral bodies should be labeled on each image.
  - If sacral dimple or other skin lesion is present:
    - In addition to the above, the level of the abnormality should be noted on the patient's skin and then imaging in both the longitudinal and transverse plane over the area should be documented as such. **Every attempt should be made to identify communication between the dimple/lesion and the thecal sac.**