The sitting position may interfere with chest expansion and diaphragm excursion, and in infants the soft, pliable trachea may collapse. Therefore, observe the child for difficulty with breathing.



FIG 20-7 Side-lying position for lumbar puncture.

Specimens and spinal fluid pressure are obtained, measured, and sent for analysis in the same manner as for adult patients. Take vital signs as ordered and observe the child for any changes in level of consciousness, motor activity, and other neurologic signs. Post–lumbar puncture headache may occur and is related to postural changes; this is less severe when the child lies flat. Headache is seen much less frequently in young children than in adolescents.

Bone Marrow Aspiration or Biopsy

The position for a bone marrow aspiration or biopsy depends on the chosen site. In children, the posterior or anterior iliac crest is most frequently used, but in infants, the tibia may be selected because it is easy to access the site and hold the child.

If the posterior iliac crest is used, the child is positioned prone. Sometimes a small pillow or folded blanket is placed under the hips to facilitate obtaining the bone marrow specimen. Children should receive adequate analgesia or anesthesia to relieve pain. If the child might awaken, he or she may need to be held, preferably by two people—one person to immobilize the upper body and a second person to immobilize the lower extremities.