



FIG 20-6 Therapeutic holding of child for extremity venipuncture with parental assistance.

Lumbar Puncture

Pediatric lumbar puncture sets contain smaller spinal needles, but sometimes the practitioner will specify a different size or type of needle. The technique for lumbar puncture in infants and children is similar to that in adults, although modifications are suggested in neonates, who have less distress in a side-lying position with modified neck extension than in flexion or a sitting position.

Children are usually easiest to control in the side-lying position, with the head flexed and the knees drawn up toward the chest. Even cooperative children need to be held gently to prevent possible trauma from unexpected, involuntary movement. They can be reassured that, although they are trusted, holding will serve as a reminder to maintain the desired position. It also provides a measure of support and reassurance to them.

A flexed sitting or side-lying position may be used, depending on the child's ability to cooperate and whether sedation will be used. In the sitting position with the hips flexed, the interspinous space is maximized ([Abo, Chen, Johnston, et al, 2010](#)). The child is placed with the buttocks at the edge of the table. The nurse's hands immobilize the infant's arms and legs. Neck flexion is not necessary ([Fig. 20-7](#)).

Nursing Alert