

In addition to routine postoperative care and observation, the infant or child is positioned carefully on the unoperated side to prevent pressure on the shunt valve. The child remains flat to help avert complications resulting from too rapid reduction of intracranial fluid. The surgeon indicates the position to be maintained and the extent of activity allowed.

Observation is continued for signs of increased ICP, which indicates obstruction of the shunt. Neurologic assessment includes pupil dilation (pressure causes compression or stretching of the oculomotor nerve, producing dilation on the same side as the pressure) and blood pressure (hypoxia to the brainstem causes variability in these vital signs).

Nursing Alert

Arbitrary pumping of the shunt may cause obstruction or other problems and should not be performed unless indicated by a neurosurgeon.

Because infection is the greatest hazard of the postoperative period, nurses are continually on the alert for the usual manifestations of CSF infection, including elevated temperature, poor feeding, vomiting, decreased responsiveness, and seizure activity. There may be signs of local inflammation at the operative sites and along the shunt tract. The child is also observed for abdominal distention because CSF may cause peritonitis or a postoperative ileus as a complication of distal catheter placement. Antibiotics are administered by the IV route as ordered, and the nurse may also need to assist with intraventricular instillation. Inspect the incision site for leakage, and test any suspected drainage for glucose, an indication of CSF.

Family Support

Specific needs and concerns of parents during periods of hospitalization are related to the reason for the child's hospitalization (shunt revision, infection, diagnosis) and the diagnostic and surgical procedures to which the child is subjected. Parents may have little understanding of anatomy; therefore, they need further exploration and reinforcement of information that was