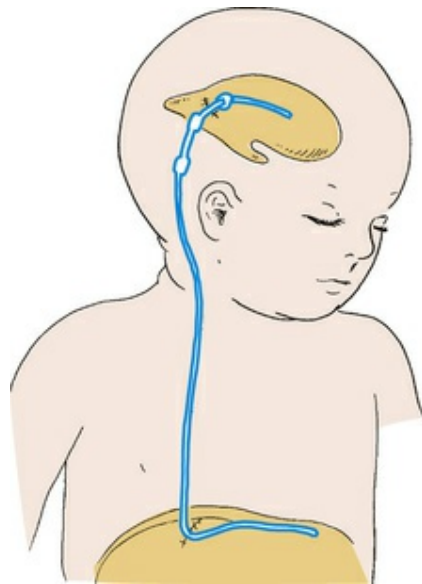


ventricle to cortex.

## Therapeutic Management

The treatment of hydrocephalus is directed toward relief of ventricular pressure, treatment of the cause of the ventriculomegaly, treatment of associated complications, and management of problems related to the effect of the disorder on psychomotor development. The treatment is, with few exceptions, surgical. This is accomplished by direct removal of an obstruction (e.g., a tumor or hematoma). Most children require placement of a shunt that provides primary drainage of the CSF from the ventricles to an extracranial compartment, usually the peritoneum (**ventriculoperitoneal [VP] shunt**) (Fig. 27-8).



**FIG 27-8** Ventriculoperitoneal (VP) shunt. The catheter is threaded beneath the skin.

Most shunt systems consist of a ventricular catheter, a flush pump, a unidirectional flow valve, and a distal catheter. In all models, the valves are designed to open at a predetermined intraventricular pressure and close when the pressure falls below that level, thus preventing backflow of secretions.

The major complications of VP shunts are malfunction and infection. All shunts are subject to mechanical difficulties, such as kinking, plugging, or separation or migration of the tubing.