

with medical terms or procedures. Preoperative teaching is critical for the adolescent to be able to cooperate and participate in his or her treatment and recovery. Because the surgery is extensive, the patient is taught how to manage his or her own patient-controlled analgesia (PCA) pump; how to log roll; and the use and function of other equipment, such as a chest tube (for anterior repair) and Foley urinary catheter. It is recommended that the child or adolescent bring a favorite toy (age dependent) or personal items such as a favorite stuffed animal, laptop computer, cell phone, MP3 player, or movie player for postoperative use. Meeting with a peer who has undergone a similar surgery may also be valuable.

Postoperative Care

Following surgery, patients are monitored in an acute care setting and log rolled when changing position to prevent damage to the fusion and instrumentation. In some cases, an immobilization brace or cast is used postoperatively depending on the type of surgical intervention. Skin care is important, and pressure-relieving mattresses or beds may be needed to prevent pressure wounds (see *Maintaining Healthy Skin*, [Chapter 20](#)).

In addition to the usual postoperative assessments of wound, circulation, and vital signs, the neurologic status of the patient's extremities requires special attention. Prompt recognition of any neurologic impairment is imperative because delayed paralysis may develop that requires surgical intervention. Common postoperative problems after spinal fusion include neurologic injury or spinal cord injury, hypotension from acute blood loss, wound infection, syndrome of inappropriate antidiuretic hormone, atelectasis, pneumothorax, ileus, delayed neurologic injury, and implanted hardware complications ([Freeman, 2013](#)). Superior mesenteric artery syndrome may occur several days after spinal surgery; this involves duodenal compression by the aorta and superior mesenteric artery and may result in acute partial or complete duodenal obstruction. Clinical manifestations include epigastric pain, nausea, copious vomiting, and eructation; symptoms are aggravated in the supine position and often relieved with the patient in a left lateral decubitus or prone position.

The adolescent usually has considerable pain for the first few days after surgery and requires frequent administration of pain