

Nursing Care Management

Stump shaping is done postoperatively with special elastic bandaging using a figure-eight bandage, which applies pressure in a cone-shaped fashion. This technique decreases stump edema, controls hemorrhage, and aids in developing desired contours so the child will bear weight on the posterior aspect of the skin flap rather than on the end of the stump. Stump elevation may be used during the first 24 hours, but after this time, the extremity should not be left in this position because contractures in the proximal joint will develop and seriously hamper ambulation. Monitoring proper body alignment will further decrease the risk of flexion contractures.

For older children and adolescents, arm exercises, bed pushups, and prosthesis-training programs using parallel bars help build up the arm muscles necessary for walking with crutches. Full range-of-motion exercises of joints above the amputation must be performed several times daily using active and isotonic exercises. Young children are often spontaneously active and require little encouragement.

Depending on the child's age, children or their parents will need to learn hygiene, including carefully washing with soap and water every day and checking for skin irritation, breakdown, and infection. A tube of stockinette or powder is used to slide the prosthesis on more easily. Skin must be checked carefully every time the prosthesis is removed, and prosthesis tolerance time must be adjusted to prevent skin breakdown.

For children who have had an amputation, **phantom limb sensation** is an expected experience because the nerve-brain connections are still present. Gradually, these sensations fade, although in many people who have had amputations, they persist for years. Preoperative discussion of this phenomenon will aid a child in understanding these “unusual feelings” and not hiding the experiences from others. Limb pain, especially pain that increases with ambulation, should be evaluated for the possibility of a **neuroma** at the free nerve endings in the stump or other problems such as a poorly fitting prosthesis or joint instability.

Sports Participation and Injury