

complications of central venous catheters. They require treatment with antibiotics for infection and a fibrinolytic agent, such as alteplase, for thrombus formation (Blaney, Shen, Kerner, et al, 2006; Fisher, Deffenbaugh, Poole, et al, 2004; Kerner, Garcia-Careaga, Fisher, et al, 2006; Shen, Li, Murdock, et al, 2003). Uncapping can be prevented by taping the cap securely to the catheter and the clamped line to the dressing. Leaks can be prevented by using a smooth-edged clamp only. The parents are cautioned to keep scissors away from the child to prevent accidental cutting of the catheter. If the catheter leaks, the parents are instructed to tape it above the leak and then clamp the catheter at the taped site. The child should be taken to the practitioner as soon as possible to prevent infection or clotting after a catheter leak (see [Research Focus](#) box).

Research Focus

Dressing Changes

Semipermeable transparent dressings should be changed at least every 5 to 7 days; the interval depends on the dressing material, age, and condition of the patient; infection rate reported by the organization; environmental conditions; and manufacturer labeled uses and directions ([Infusion Nurses Society, 2011](#)). In children older than 2 years old, use of chlorhexidine-impregnated dressing should be considered as an extra prevention measure for catheter-related bloodstream infection ([Infusion Nurses Society, 2011](#)).

Nursing Alert

If a central venous catheter is accidentally removed, apply pressure to the entry site to the vein, not the exit site on the skin.

Intraosseous Infusion

Situations may occur in which rapid establishment of systemic access is vital, and venous access may be hampered by peripheral circulatory collapse, hypovolemic shock (secondary to vomiting or diarrhea, burns, or trauma), cardiopulmonary arrest, or other conditions. It is recommended that intraosseous access be obtained