The Child in a Cast

The completeness of the fracture, the type of bone involved, and the amount of weight bearing influence how much of the extremity must be included in the cast to immobilize the fracture site completely. In most cases, the joints above and below the fracture are immobilized to eliminate the possibility of movement that might cause displacement at the fracture site. Four major categories of casts are used for fractures: **upper extremity** to immobilize the wrist or elbow, **lower extremity** to immobilize the ankle or knee, spinal and cervical to immobilize the spine, and spica casts to immobilize the hip and knee (Fig. 29-5).

FIG 29-5 Spica cast with hip abductor. Note casts on doll as well.

The Cast

Casts are constructed from gauze strips and bandages impregnated with plaster of Paris or, more commonly, from synthetic lighter weight and water-resistant materials (e.g., waterproof liners, fiberglass and polyurethane resin).

Both types of casting produce heat from chemical reaction activated by water immediately after application. Plaster casts mold