achieved more rapidly in infants, who have limited muscle tone, than in muscular teenagers. The desired vector force and callus formation are checked periodically by radiographic examination. The traction pull to some degree immobilizes the fracture site; however, adjunctive immobilizing devices such as splints or casts are sometimes used with skeletal traction. Immobilization with traction is maintained until the bone ends are in satisfactory realignment after which a less confining type of immobilization—a cast, pins, or external stabilization device—is applied.

Types of Traction

The pull needed for traction can be applied to the distal bone fragment in several ways (Box 29-4). The type of traction applied is determined primarily by the child's age, the condition of the soft tissues, and the type and degree of displacement of the fracture. Fractures most commonly treated by application of traction are those involving the femur and vertebrae. The major types of traction for specific fractures are briefly discussed in the following paragraphs.

Box 29-4

Types of Traction

Manual traction: Applied to the body part by the hand placed distal to the fracture site. Manual traction may be provided during application of a cast but more commonly when a closed reduction is performed.

Skin traction: Applied directly to the skin surface and indirectly to the skeletal structures. The pulling mechanism is attached to the skin with adhesive material or an elastic bandage. Both types are applied over soft, foam-backed traction straps to distribute the traction pull.

Skeletal traction: Applied directly to the skeletal structure by a pin, wire, or tongs inserted into or through the diameter of the bone distal to the fracture.