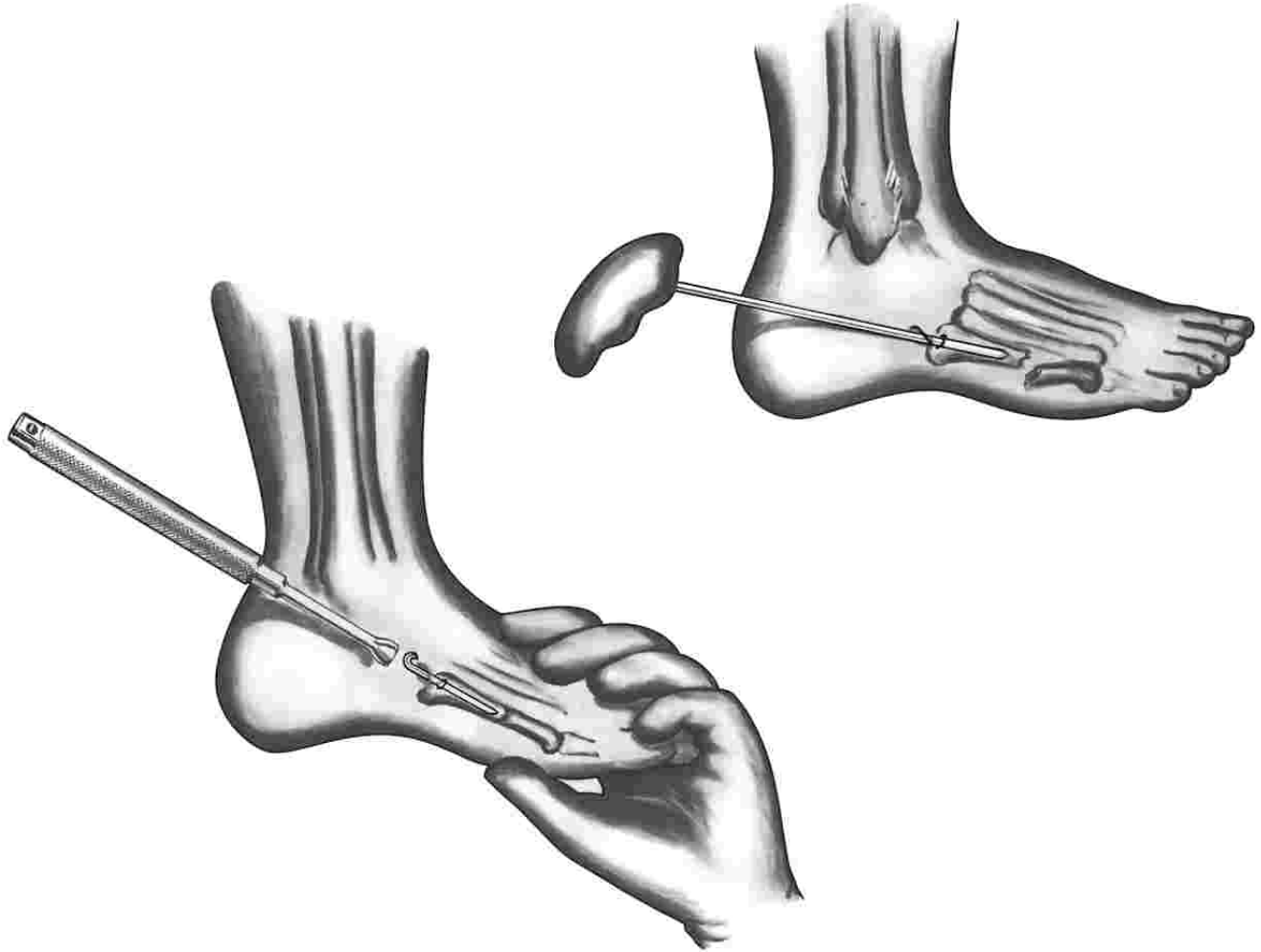


## 18 THE FOOT



Pinning of metatarsals is not often necessary, but can be very effective.

Medullary pinning is not often indicated in fractures of the foot. Most fractures in this area heal satisfactorily, but it is important to avoid distraction or deformity which would result in any type of a bony prominence in the sole of the foot which would be painful on weight bearing.

The metatarsals can usually be pinned by open reduction using a pin 1/16" or 3/32" in diameter. Here it is necessary that the pin be of exact

length. A slight curve to the pin is helpful.

The opening is made in the dorsal surface of the proximal portion of the bone using the awl-reamer, and the pin is driven axially down the bone to the fracture site. The fracture is reduced and the pin driven into the distal fragment. Fixation is usually stable enough that plaster splints are not necessary, but they might occasionally be needed.

## RECAPITULATION: THE LOWER EXTREMITY Choice of Procedure

**Femur:** The single curved pin (1/4 inch) introduced from the side of the great trochanter is the usual procedure for fractures of the upper two-thirds of the femur shaft in adults and adolescents. The pin may be introduced through the external condyle.

The single straight pin (1/4 inch) is introduced above and medial to the trochanter when the upper fragment is short or too comminuted for good fixation. The smaller pin (3/16 inch) is used in the same manner in shaft fractures of small children.

Double pins (3/16 inch) driven upward from the condyles are indicated for the supracondylar area and condyles. They may also be used for fracture at the junction of the middle and lower thirds, but permit some rocking at the fracture site. Such a fracture is best fixed by a curved pin (1/4 inch) driven downward as described

above, supplemented by a single pin (3/16 inch) driven upward from the medial condyle. In the condyles of the elderly when the bone is osteoporotic, the special condyle pin with the loop head should be used.

**Tibia:** The single curved pin is best indicated for the mid-portion of the shaft. The smaller pin (3/16 inch) is easier to direct and is indicated in small women and children. The larger pin (1/4 inch) gives best fixation for most men.

Double pins (3/16 inch) driven downward from the lateral surfaces of the condyles give best fixation in the proximal and distal portions of the shaft as well as the condyles. They are especially indicated in comminuted fractures of the shaft.

**Ankle:** Emphasis should be placed on accurate reconstruction of the malleoli. Pins used may be 1/8 inch or 3/32 inch in diameter.