



Fig. E-1

Photograph of a child in longitudinal traction, with abducted hips and slight internal rotation of the left leg.



Fig. E-2A



Fig. E-2B

**Figs. E-2A and E-2B** Radiographs of a female patient who had an unsatisfactory long-term outcome. **Fig. E-2A** Radiograph made when the patient was 5.7 years old, showing subluxation of both hips. A bilateral acetabular shelf operation was performed at the age of 6.2 years. **Fig. E-2B** Radiograph made at the age of 41.6 years, when the patient had increasing pain in the left hip. Although femoral head coverage had improved postoperatively, osteoarthritis of the left hip had occurred, and the patient underwent total hip replacement.



Fig. E-3A



Fig. E-3B



Fig. E-3C

**Figs. E-3A, E-3B, and E-3C** Radiographs of a female patient who had a good long-term outcome. **Fig. E-3A** The initial radiograph at age twenty-six months showing a dislocated left hip. **Fig. E-3B** A preoperative radiograph showing subluxation of the left hip (a migration percentage of 36% and a center-edge angle of  $11^\circ$ ). Bilateral femoral osteotomies with  $25^\circ$  of varization and  $25^\circ$  of external rotation were performed when the patient was sixteen years of age. **Fig. E-3C** A radiograph made at age 51.7 years showing a good long-term outcome without osteoarthritis.