

FIG 30-1 Mobilization device for a child.



FIG 30-2 Bike walker used to provide mobility and to enhance leg muscle strength. (Courtesy of Texas Children's Hospital, Houston, TX.)

Orthopedic surgery may be required to correct contracture or spastic deformities, to provide stability for an unstable joint, and to provide balanced muscle power. This includes tendon-lengthening procedures, release of spastic muscles, and correction of hip and adductor muscle spasticity or contracture to improve locomotion. Hip dislocation often occurs in children with CP, so hip surveillance may be a routine care for a child with CP. Spinal fusion may be required for scoliosis. Computerized motion analysis, radiographs, and clinical findings are used to make decisions about orthopedic surgery. Selective dorsal rhizotomy may provide marked improvement in some children with CP ([Nordmark, Josenby, Lagergren, et al, 2008](#)). The procedure involves selectively cutting dorsal column sensory rootlets that have an abnormal response to electrical stimulation. Achieving the benefits from the surgery requires intensive physical therapy and family commitment. Because the procedure results in flaccid muscles, the child must be retaught to sit, stand, and walk.

Surgical intervention is usually reserved for children who do not