because of the risk of aspiration. Parents should also be advised that normal bowel activity may not return for several weeks. Therefore, a stool softener can be beneficial.

Spinal Cord Injuries

Spinal cord injuries (SCIs) with major neurologic involvement traditionally have not been a common cause of physical disability in children. However, many children with these injuries are admitted to major medical centers, and because of the increased survival rate as a result of improved management, nurses have an important role in the care and rehabilitation of children with SCI.

Mechanisms of Injury

The most common cause of serious spinal cord damage in children is trauma involving motor vehicle accidents (MVAs) (including automobile-bicycle, all-terrain vehicles, and snowmobiles), sports injuries (especially from diving, trampoline activities, gymnastics, and football), birth trauma, and nonaccidental trauma. MVAs accounted for 56% of SCI in children, and adolescents and falls and firearm injury caused 14% and 9% of SCIs, respectively. The children injured (SCI) in MVAs were not properly restrained in 67.7% of the cases (Vitale, Goss, Matsumoto, et al, 2006). The increased use of recreational activities involving motorized vehicles such as jet water skis, all-terrain vehicles, and motorcycles has also increased the incidence of SCIs in children. Congenital defects of the spine (such as myelomeningocele) also may in some cases produce the effects of SCI.

Transverse myelitis (inflammation of the spinal cord) may be caused by illness and has also been reported to develop from inadvertent intraarterial administration of long-acting penicillin injected into the buttocks. Damage can be extensive enough to result in paraplegia or even lower limb amputation.

In MVAs, most SCIs in children are a result of indirect trauma caused by sudden hyperflexion or hyperextension of the neck, often combined with a rotational force. Trauma to the spinal cord without evidence of vertebral fracture or dislocation (**spinal cord injury without radiographic abnormality [SCIWORA]**) is particularly likely to occur in an MVA when proper safety restraints