family should become involved with the child's care as soon as they indicate an interest and ability to do so. They need education and support in learning to care for the child, regular follow-up observation and assessment of the home management, and planning for respite care. Parents need to understand that it is important to plan for periodic relief from the continuous care of the child (see Family-Centered Care, Chapter 19).

Cerebral Trauma

Head Injury

Head injury is a pathologic process involving the scalp, skull, meninges, or brain as a result of mechanical force. According to the Centers for Disease Control and Prevention (2012) and Safe Kids Worldwide,* unintentional injuries are the number one health risk for children and the leading cause of death in children 1 to 19 years old. Tragically, 12,175 children ages 0 to 19 years old are killed every year by unintentional injuries (Centers for Disease Control and Prevention, 2012). It has been estimated that each year, approximately 511,000 children ages 0 to 14 years sustain a traumatic brain injury, 35,000 children are hospitalized, and 2174 children die as a result of the brain injury (Faul, Xu, Wald, et al, 2010).

Etiology

The three major causes of brain damage in childhood, in order of importance, are (1) falls, (2) motor vehicle injuries, and (3) bicycle injuries. Neurologic injury accounts for the highest mortality rate, with boys affected twice as often as girls. Falls are the major source of all head injuries in children between 0 to 14 years old (Faul, Xu, Wald, et al, 2010). In motor vehicle accidents, children younger than 2 years old are almost exclusively injured as passengers, but older children may also be injured as pedestrians or cyclists. The majority of deaths from brain trauma caused by bicycle injuries occur between 5 and 19 years old. Bicycle helmet laws have been effective in reducing the risk of head injury by 85% and brain injury by 88% (Rivara and Grossman, 2016).

Many of the physical characteristics of children predispose them