Table 22-2	Differential Diagnosis of Physical Abuse*—cont'd
HEAD TRAUMA	
Accidental head injury	
Hematologic disorders	
Vitamin K deficiency (hemorrhagic disease of the newborn)	
Hemophilia	
Intracranial vascular abnormalities	
Infection	
Metabolic diseases	
Glutaric aciduria type I, Menkes kinky hair syndrome	

From Christian CW: Child abuse physical. In Schwartz MW, editor: The 5-minute Pediatric Consult, *ed 3, Philadelphia, 2003, Lippincott Williams & Wilkins.*
*The differential diagnosis of physical abuse varies by the type of injury and organ system involved.

injuries should undergo a skeletal survey looking for occult or healing fractures. One third of young infants with multiple fractures, facial injuries, or rib fractures may have occult head trauma. Brain imaging may be indicated for these infants.

SEXUAL ABUSE

Child sexual abuse is the involvement of children in sexual activities that they cannot understand, for which they are developmentally unprepared and cannot give consent to, and that violates societal taboos. Sexual abuse can be a single event, but more commonly it is chronic. Most perpetrators are adults or adolescents who are known to the child and who have real or perceived power over the child. Most sexual abuse involves manipulation and coercion and does not involve physical violence. Although assaults by strangers occur, they are infrequent. Perpetrators are more often male than female and include parents, relatives, teachers, family friends, members of the clergy, and other individuals who have access to children. All perpetrators strive to keep the child from disclosing the abuse and often do so with coercion or threats.

Approximately 80% of victims are girls, although the sexual abuse of boys is underrecognized and underreported. Children generally come to attention after they have made a disclosure of their abuse. They may disclose to a nonoffending parent, sibling, relative, friend, or teacher. Children commonly delay disclosure for many weeks, months, or years after their abuse, especially if the perpetrator has ongoing access to the child. Sexual abuse also should be considered in children who have behavioral problems, although no behavior is pathognomonic. Hypersexual behaviors should raise the possibility of abuse, although some children with these behaviors are exposed to inappropriate sexual behaviors on television or videos or by witnessing adult sexual activity. Sexual abuse occasionally is recognized by the discovery of an unexplained vaginal, penile, or anal injury or by the discovery of a sexually transmitted infection.

In most cases, the diagnosis of sexual abuse is made by the history obtained from the child. In cases in which the sexual abuse has been reported to CPS or the police (or both), and the child has been interviewed before the medical visit, a complete, forensic interview at the physician's office is not needed. Many communities have systems in place to ensure quality investigative interviews of sexually abused children. However if no other professional has spoken to the child about the abuse, or the child makes a spontaneous disclosure to the physician, the child should be interviewed with questions that are open-ended and non-leading. In all cases, the child should be questioned about medical issues related to the abuse, such as timing of the assault and symptoms (bleeding, discharge, or genital pain).

The **physical examination** should be complete, with careful inspection of the genitals and anus. Most sexually abused children have a normal genital examination at the time of the medical evaluation. Genital injuries are seen more commonly in children who present for medical care within 72 hours of their most recent assault and in children who report genital bleeding, but they are diagnosed in only 5% to 10% of sexually abused children. Many types of sexual abuse (fondling, vulvar coitus, oral genital contact) do not injure genital tissue, and genital mucosa heals so rapidly and completely that injuries often heal by the time of the medical examination. For children who present within 72 hours of the most recent assault, special attention should be given to identifying acute injury and the presence of blood or semen on the child. Injuries to the oral mucosa, breasts, or thighs should not be overlooked. Forensic evidence collection is needed in a few cases and has the greatest yield when collected in the first 24 hours after an acute assault. Few findings are diagnostic of sexual assault, but findings with the most specificity include acute, unexplained lacerations or ecchymoses of the hymen, posterior fourchette or anus, complete transection of the hymen, unexplained anogenital scarring, or pregnancy in an adolescent with no other history of sexual activity.

The **laboratory evaluation** of a sexually abused child is dictated by the child's age, history, and symptoms. Universal screening for sexually transmitted infections for prepubertal children is unnecessary because the risk of infection is low in asymptomatic young children. The type of assault, identity and known medical history of the perpetrator, and the epidemiology of sexually transmitted infections in the community also are considered. Many clinicians use nucleic acid amplification testing to screen for sexually transmitted infections in sexually abused children because these tests have excellent sensitivity while maintaining good specificity for STIs in children and adolescents. The diagnosis of most sexually transmitted infections in young children requires an investigation for sexual abuse (see Chapter 116).

MANAGEMENT

The management of child abuse includes medical treatment for injuries and infections, careful medical documentation of verbal statements and findings, and ongoing advocacy for the safety and health of the child (Fig. 22-5). Parents always should be informed of the suspicion of abuse and the need to report to CPS, focusing on the need to ensure the safety and well-being of the child. Crimes that are committed against children also are investigated by law enforcement, so the police become involved in some, but not all, cases of suspected abuse. Physicians occasionally are called to testify in court hearings regarding civil issues, such as dependency and