**Chapter 62
Child maltreatment**

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**Introduction**

Child maltreatment is a serious public health problem. In 2011, an estimated 3.4 million referrals involving approximately 6.2 million children were made to Child Protective Service (CPS) agencies nationally [1]. An estimated 676,569 children were determined to be victims of abuse or neglect [1]. Of these, 78.5% experienced neglect, 17.6% were physically abused, 9.1% were sexually abused, and approximately 9% experienced emotional or psychological abuse [1]. An estimated 1,570 children died of abuse or neglect in 2011, with a rate of 2.10 per 100,000 in the total US population [1]. Although any child may fall victim to child abuse, the most vulnerable groups are infants, preverbal children, and children with chronic diseases and disabilities.

**Role of the prehospital provider**

Emergency medical services physicians and personnel play an important role in recognizing and reporting child maltreatment. They frequently have the opportunity to assess the scene and home environment as well as the interactions between the child and the caregiver(s). If there are any suspicions for maltreatment, it is vitally important that appropriate interventions are implemented to protect the child as mortality is known to be significantly higher in children who experience repeated episodes of non-accidental trauma [2]. Observations made by prehospital providers can be invaluable to physicians, nurses, other health care providers, child welfare workers, and law enforcement personnel who are charged with evaluating and investigating child maltreatment.

**Child maltreatment**

Child maltreatment involves acts of commission and omission that result in harm or threat of potential harm to a child [3]. Acts of commission involve physical, psychological, and sexual abuse. Acts of omission (neglect) may involve failure to provide adequate food, shelter, medical and dental care, and education [3]. A caregiver may also fail to provide adequate supervision or may expose a child to a dangerous or injurious environment, which may be considered neglect.

**Assessment and general approach**

Providing the appropriate level of medical care is the first priority when responding to any illness or injury. This priority does not change when responding to children who are victims of maltreatment. BLS and ALS measures should be implemented as indicated after provider safety is assured. Scene assessment and investigation, although very important in understanding mechanisms of injury and the relationship to real or potential maltreatment, should not impede the delivery of expedient and appropriate medical care. Pediatric ABCs and the primary survey are discussed elsewhere (see [Chapters 54](https://jigsaw.vitalsource.com/books/9781118990827/epub/OPS/c54.xhtml) and [55](https://jigsaw.vitalsource.com/books/9781118990827/epub/OPS/c55.xhtml)) and will not be specifically addressed in this chapter.

**Secondary survey: signs and symptoms suggestive of abuse or neglect**

The secondary survey should involve a careful examination of the child, especially the skin surfaces. The most common manifestations of child abuse are cutaneous injuries; therefore, a detailed physical examination is essential in identifying suspicious findings [4]. Bruising, burns, and bite marks are often observed in children who have sustained physical abuse. However, children may have no obvious cutaneous findings and still be victims of physical abuse. For example, the presence of bruising with inflicted rib and extremity fractures has been shown to be uncommon [5].

**Bruising**

The age and developmental level of the child should be considered when understanding mechanisms and resulting injuries. Bruising is rare in infants before they begin to walk or crawl. When bruising is identified in this age group and a credible history is not obtained from the caregiver, abuse should be considered and the child should receive an appropriate medical evaluation.

For mobile children, accidental bruising is more common to certain areas of the body. Skin overlying bony prominences is more likely to bruise from accidental causes such as play activities or falls. Areas over the knees, anterior tibial area, forehead, hips, lower arms, and spine commonly demonstrate bruising from accidental causes. However, this does not guarantee that bruising over these areas cannot result from inflicted trauma.

Bruising over more protected areas such as the upper arms, medial and posterior thighs, hands, torso, cheeks, ears, neck, genitalia, and buttocks is more frequently associated with inflicted trauma. The observation of bruising over these areas should raise suspicions for maltreatment. However, bruising over these areas can also occur accidentally; therefore, obtaining a careful history regarding the injuries that may have led to the bruising becomes important in assessing whether or not the injuries are compatible with the caregiver’s account and the child’s developmental abilities.

Observations that increase concerns for inflicted trauma include multiple sites of bruising and bruising that demonstrates a pattern. Research has shown that dating of bruises (e.g. by the progression of colors) is unreliable [6]. A finding of multiple bruises over the body of a child should increase concerns for inflicted trauma.

**Burns**

Burns are common injuries in children and may occur from both accidental and inflicted causes. Abusive burns represent about 10% of pediatric burns [7]. Most common abusive burns will be scald burns such as immersion burns. Abusive burns may also occur from contact with hot thermal sources, chemicals, electricity, and even microwaves [8].

Obtaining information concerning the history of the burn, to include the mechanism and timing, is important in understanding if an abusive or neglectful injury may have occurred. The history should be correlated not only with the physical presentation of the injury but also with the developmental level of the child if the caregiver is reporting an action on the behalf of the child that led to the burn. Any mismatch with respect to the reported history, a changing history, mechanism, appearance and developmental level of the child should be documented. Delays in seeking care for burns may also represent abuse and neglect, and therefore documenting the reported timing of the burn is important.

**Fractures**

It is estimated that 11–55% of pediatric fractures are the result of physical abuse [9]. Younger children are particularly at risk for sustaining abusive fractures: 55–70% of all abusive fractures occur in infants less than 1 year of age [9]. With respect to orthopedic injuries, a careful history and secondary survey are vital when assessing the young child. EMS providers do not have the advantage of radiography in determining if a child has a fracture. Some children may not exhibit signs such as guarding, deformity, swelling, or pain, thus creating difficulty in making safe and accurate assessments.

**Transport decisions**

Before determining that a child does not require EMS transport, careful consideration should be given to the age of the child, the ability to adequately determine if a fracture or other injury exists, and the history given by the caregivers. Any child with a suspicious or concerning history surrounding the injury should be transported to medical care.

**Scene survey**

Emergency medical services providers are in an excellent position to provide valuable information about the scene and circumstances of the call. In many instances, they will be able to observe and confirm or refute the details provided by the caregiver and communicate these to the medical providers. This type of information becomes very important when determining the credibility of the history and the injuries sustained by the child.

**Obtaining the history**

Obtaining a concise and detailed history will obviously depend on the acuity of the child’s condition. The ability of the child to respond to questions is contingent on age and developmental level as well as the degree of injury. A verbal child may be able to answer simple questions such as “what happened?” but he or she may not be able to answer questions relating to how, where, or when. The following questions should be asked of the caregiver.

* How did the injury occur?
* Where did the injury occur?
* When did it happen?
* Who witnessed the event?
* What is the child’s medical history?
* Who is the child’s regular medical provider?

The provider should think about the responses to the questions in terms of a credible explanation for the observed injuries.

* Is the explanation credible? Does the injury pattern fit the manner in which the caretaker describes the incident?
* Does the scene assessment support the alleged mechanism of injury?
* Was there a long delay before seeking medical attention?
* If there are histories from more than one source, are they consistent?
* Was there adequate supervision of the child?
* Does the child have preexisting medical, psychological, or developmental problems?
* Does the child have a current health care provider? When was the last time the child saw a health care provider? Has this child been seen by EMS for a previous concern?

**Communicating with the child and caregivers**

Method and style of communication are very important when dealing with situations surrounding possible child maltreatment. Judgmental and accusatory questioning may only serve to threaten the caregiver and incite defensiveness or aggression. Maintaining objectivity is very important in managing interactions with the child and caregiver. The provider should avoid challenging the child or caregiver on the proposed history and mechanisms for observed injuries.

**Documentation**

Accurate, detailed, and concise documentation of the scene, a complete physical examination of the child, and history from the caregiver and child are vitally important. Responses and statements made by the child and the caregiver should be placed in quotes. Conflicting histories should be noted. The objective findings documented by the prehospital provider frequently become very important in the investigation of suspected child maltreatment. Concerns should be carefully communicated to the hospital personnel taking over care of the patient from the EMS providers.

**Medical conditions that may be confused with child abuse**

Numerous medical conditions may present with signs and symptoms that may be confused with child maltreatment. Some of these conditions may have already been identified in the child’s history. For example, a child with a blood clotting disorder such as hemophilia is more prone to bruising; however, this should not be interpreted to mean that these children have not been abused.

Young children may have skin markings that have the appearance of purplish bruising but are congenital melanosis (“Mongolian spots”). These markings are usually found on the lower back and buttocks but can also be on other parts of the body. The caregivers are usually able to give a history of these markings as being present since birth.

**Sexual abuse**

Sexual abuse represents the third most common form of child maltreatment. Research and statistics describing EMS response to child sexual abuse calls are minimal; therefore, it is unknown how frequently these types of calls are encountered in the prehospital environment and under what conditions. Because it is rare for an acute case of child sexual abuse to present to medical care, it is reasonable to expect that EMS response will also be relatively rare. EMS providers may respond to a call only to find that there is no medical emergency. A caregiver may call EMS not knowing what other action to take or may simply have no transportation options to access medical care for the child. It is important to understand the dynamics of how child sexual abuse is often disclosed in order to respond appropriately.

Children frequently do not disclose abuse when it happens. It may be weeks, months, or even years before a child is able to disclose being sexually abused. Smith et al. found that almost half of all women they interviewed who had sustained rape as a child did not disclose the rape within 5 years of the assault and 28% had never disclosed to anyone until surveyed in their study [10]. Children who are verbal often do not disclose sexual abuse due to threats or other manipulation by the abuser, who is often a trusted relative or friend.

One of the more common concerns a caregiver may mention is that the child’s genital area appears red or irritated. Other concerns may involve a caregiver or other family member observing suspicious contact or inappropriate touching of the child.

Once there is an EMS response to a child sexual abuse call, it becomes vital that the medical, psychosocial, and safety needs of the child and family are addressed. This is a very complex process and requires a multidisciplinary and specialized approach. It is impossible for the EMS responder to address the many issues surrounding this type of event. Some communities have established protocols to address this type of response. When there is no local medical protocol, the best course of action is to transport these children to medical care.

Acute medical and forensic interventions are seldom indicated due to the rarity of immediate disclosure or discovery of child sexual abuse. Locales and communities may also have differing time-frames for defining “acute” for the purposes of immediately evaluating child sexual abuse (72–96 hours is more common but some may consider acute up to120 hours). However, the presence of any of the following within the established acute time-frame warrants having the child medically evaluated:

* discovery or disclosure of suspected sexual abuse occurring within the specified acute time-frame
* anogenital pain, bleeding, discharge
* contact with the suspected perpetrator within the specified acute time-frame
* other extragenital findings concerning for trauma such as bruises, abrasions, etc.
* a distressed child and/or caregiver.

The greatest responsibilities for the EMS provider are identification of concerns, crisis intervention, and careful documentation. If at all possible, the history from the caregiver should not be taken in front of the child if the child is verbal and capable of understanding. If possible, it is preferable to talk with the child alone. Many issues concerning the credibility of the child’s history and disclosure of sexual abuse will arise as the child moves through the medical, social, and legal systems. A limited interview of the child should be conducted to ascertain areas of discomfort or pain. Probing questioning of the disclosure and details surrounding the abuse are better left to professionals who are skilled in the area of child interviewing for the purposes of documenting and diagnosing sexual abuse. If a child spontaneously begins to give the history, allow him or her to do so, and document the history as carefully as possible. Use quotes to differentiate the child’s verbatim words from other documentation because the response and the record may become a vital document in legal proceedings.

With acute events, preservation of any evidence on the child’s body should be attempted by carefully handling the child and any clothing the child is wearing. Articles such as diapers, clothing, and the child’s bedding and blankets may yield the best source of recoverable evidence and should be protected and preserved. If law enforcement is at the scene, officers should take possession of these items. If law enforcement is not present then the EMS provider should place each item in a separate brown paper bag, labeling each bag with the patient’s name, date, time of recovery, and provider’s signature. The items may then be turned over to the appropriate medical or hospital staff on arrival to medical care. The EMS provider should document the evidence recovered and to whom it was turned over.

**Responding to intimate partner violence calls**

It is not unusual for EMS to respond to calls involving intimate partner violence (IPV) (see [Chapter 60](https://jigsaw.vitalsource.com/books/9781118990827/epub/OPS/c60.xhtml)). Concerns for child maltreatment should always be considered when responding to calls where IPV is occurring and children are part of the family unit. Children who reside in homes in which IPV is present are at increased risk of being maltreated and neglected, as well as suffering significant emotional and psychological harm from witnessing the abuse [11]. Appropriate measures should be undertaken to address safety concerns for these children and should involve collaboration with law enforcement, child welfare services, and medical oversight.

**Medicolegal duties**

All states and territories in the United States require reporting suspicions of child abuse. Prehospital providers should have a good understanding of how legal requirements guide reporting in their respective states or jurisdictions. Accurate and detailed written documentation is vital in conveying important information to which the prehospital provider may be privileged based on his or her unique position in the continuum of care. A thorough summary of the assessment and suspicions should be relayed to receiving physicians, nurses, and social workers.

**Conclusion**

Emergency medical services providers are in an excellent position to provide valuable information in the recognition, documentation, and ultimate intervention in cases of child maltreatment, but it is likely that prehospital personnel need more training in recognizing and managing child maltreatment than is typically provided [12]. Field personnel frequently have the opportunity to observe the home and/or the scene and note consistencies or inconsistencies that accompany the history provided by caregivers. EMS providers often see or hear things at the scene or en route that are suspicious and need follow-up or further investigation. Accurate documentation of the history and observations made is vital in the comprehensive assessment of child maltreatment.

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