



# Recognizing When a Child's Injury or Illness Is Caused by Abuse

*Portable Guides to  
Investigating Child Abuse*

# Foreword

Investigation of potential incidents of child abuse is a critical and sensitive matter. Protection of children and fairness to parents are complementary, not mutually exclusive ends. Balancing these interests is a very difficult and challenging law enforcement responsibility.

It is an important part of the investigative process that physical and sexual abuse of children not be camouflaged as accidental injury. To determine whether a child's injuries are accidental or intentional requires careful investigation, and this guide provides many practical pointers toward that end.

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In recent years the public's increased awareness and reports of suspected child abuse have put pressure on law enforcement to improve their investigations of such cases. This was underscored in late 1987 when a New York City toll collector observed a small girl covered with bruises in the rear of a car. The collector radioed the New York State Police, who stopped the car.



The child's foster father, an attorney, explained to police that the bruises were accidental, and he was released. A week later, the child was dead from a beating.

Law enforcement personnel frequently must determine whether a child's accident or illness was caused by a parent or caretaker. However, it is often difficult even for medical personnel to discriminate between injuries and illnesses that are accidental and those that are not. The following information can help law enforcement personnel to determine if it is likely that abuse has occurred.

# Could This Be Child Abuse?

Investigators must determine whether the explanation for an injury is believable. Police should begin their investigation by asking the caretaker for an explanation of the child's bruises or injuries. This is best done by asking the question: How did the accident happen?

All bruises must be investigated. If bruises are found on two or more planes of a child's body, investigators should be even more suspicious. For example, a child has bruises on his buttocks and stomach. The caretaker's explanation is that the child fell backward in the living room of the family home. This might explain the bruises on the buttocks, but not the stomach bruises. If a discrepancy exists between the reported cause of an injury and the injuries seen, law enforcement personnel should investigate further. They should also keep in mind the following points:

- ✱ All other children in the home should be examined for possible signs of child abuse.
- ✱ Victims of physical abuse often have been intimidated and will usually support the abuser's version of how their injuries occurred to avoid further injury. They also feel that the abuse was just punishment because they were bad.
- ✱ A physical examination of the child in suspected cases of maltreatment must be done and the data recorded precisely.
- ✱ Laboratory data should be obtained to support or refute the evidence of abuse.
- ✱ If the reported history of an injury or injuries changes during the course of an investigation, or if there is conflict between two adult caretakers as to the cause of injury, the likelihood of child maltreatment increases.
- ✱ The demeanor of the child's parents or caretakers is sometimes revealing. For example, the mother's assessment of her pregnancy, labor, and delivery will often provide an insight into her attitude about her child as well as give an indication of whether there is something about the child that is influencing her behavior.

- \* Investigators should ask questions in an unobtrusive manner; for example:
  - Was this a planned pregnancy?
  - Did you want the baby?
  - Do you like the baby?
  - How did the accident happen?
  - What were you doing just before the accident?
  - Who was at home at the time of the accident?
  - What do you feed the baby? How often? Who feeds the baby?
- \* Information about a child's birth and his or her neonatal and medical history are critical elements in investigations. Hospital records can confirm or eliminate the existence of birth injuries.
- \* Any child may be abused, and child abuse occurs in all levels of society. However, there are some factors that increase a child's risk of abuse. These include:
  - Premature birth or low birth weight.
  - Being identified as "unusual" or perceived as "different" in terms of physical appearance or temperament.
  - Having a variety of diseases or congenital abnormalities.
  - Being physically, emotionally, or developmentally disabled (e.g., mentally retarded or learning disabled).
  - Having a high level of motor activity, being fussy or irritable, or exhibiting behavior that is different from the parents' expectations.
  - Living in poverty or with families who are unemployed.
  - Living in environments with substance abuse, high crime, and familial or community violence.

The following are provided to help law enforcement personnel determine which injuries and illnesses in children are likely to be the result of abuse. However, it is also very important for law enforcement to work closely with physicians to determine the nature of all injuries.



## Repetitive Accidents

Multiple bruises, wounds, abrasions, or other skin lesions in varying states of healing may indicate repetitive physical assault. Such repetitive accidents or injuries may indicate that abuse is occurring. A careful examination of the circumstances and types of injuries and an assessment of the child and family should be carried out by a professional skilled in family dynamics, usually the social worker investigating a report of suspected abuse. However, a police officer from the juvenile division may in some circumstances be responsible for this, rather than a social worker.

## Cutaneous (Skin) Injuries

The most common manifestations of nonaccidentally inflicted injuries are skin injuries. Several characteristics help to distinguish nonaccidental skin injuries from accidental ones, including their location and pattern, the presence of multiple lesions of different ages, and the failure of new lesions to appear after hospitalization. Law enforcement personnel should be sure to obtain a complete history of all injuries from the caretaker.

## Bruises

Bruises are due to the leakage of blood into the skin tissue that is produced by tissue damage from a direct blow or a crushing injury. Bruising is the earliest and most visible sign of child abuse. Early identification of bruises resulting from child abuse can allow for intervention and prevent further abuse.

Bruises seen in infants, especially on the face and buttocks, are more suspicious and should be considered nonaccidental until proven otherwise. Injuries to children’s upper arms (caused by efforts to defend themselves), the trunk, the front of their thighs, the sides of their faces, their ears and neck, genitalia, stomach, and buttocks are also more likely to be associated with nonaccidental injuries. Injuries to their shins, hips, lower arms, forehead, hands, or the bony prominences (the spine, knees, nose, chin, or elbows) are more likely to signify accidental injury.

### Age Dating of Bruises

It is important to determine the ages of bruises to see if their ages are consistent with the caretaker’s explanation of the times of injury. Age dating of bruises can often be determined by looking at the color of the bruise. The ages and colors of bruises may therefore show if more than one injury is present. Table 1 shows the ages associated with the colors of bruises.

Table 1	
Determining the Age of a Bruise by Its Color	
Color of Bruise	Age of Bruise
Red (swollen, tender)	0–2 days
Blue, purple	2–5 days
Green	5–7 days
Yellow	7–10 days
Brown	10–14 days
No further evidence of bruising	2–4 weeks

For example, a 2-year-old boy, not toilet trained, has several yellow-to-brown bruises on his buttocks. The caretaker's explanation for the bruises is that the child tripped in the hallway the day before and fell on his buttocks. This would be suspicious because:

- \* Children seldom bruise their buttocks in accidental falls.
- \* Bruises on the buttocks are in the primary target zone for nonaccidental injury.
- \* The child's diaper (whether disposable or cloth), plastic pants, and clothing would have afforded some protection to his buttocks.
- \* If the injuries causing the bruises were sustained the previous day, the bruises should be red to purple.

Another child might have both bright red and brown bruises. The caretaker maintains that all of the bruises were the result of a fall that day. However, the bright red color indicates fresh bruises, while the brown bruises are older. The caretaker's explanation is, therefore, suspicious, and separate explanations must be obtained for each bruise.

## Bruise Configurations

Bruises will sometimes have a specific configuration. This may enable law enforcement officers to determine whether bruises are accidental or nonaccidental. One of the easiest ways to identify the weapon used to inflict bruises is to ask the caretaker: How were you punished as a child?

The pattern of a skin lesion may suggest the type of instrument used. Bruise or wound configurations from objects can be divided into two main categories: those from "fixed" objects, which can only strike one of the body's planes at a time, and those from "wraparound" objects, which follow the contours of the body and strike more than one of the body's planes. Hands can make either kind of bruise, depending on the size of the offender's hands and the size of the child. Examples of fixed and wraparound objects include:

- \* Fixed objects: coat hangers, handles, paddles.
- \* Wraparound objects: belts, closed-end (looped) cords, open-end cords. (Closed-end cords leave a bruise in parallel lines; open-end cords leave a bruise in a single line.)



## Natural or Normal Bruising

Injuries inflicted by human hands, feet, or teeth or those inflicted by belts, ropes, electrical cords, knives, switches, gags, or other objects will often leave telltale marks (e.g., gags may leave down-turned lesions at the corners of the mouth). These marks may also help in the investigative process. For example, the size of bite marks may help to determine the biter's approximate age; their shape may help identify whose teeth made the marks. In some cases, however, bruises are acquired innocently, through play and accidental falls, or when a child has a defect in his or her clotting mechanism.

For example, a baby is brought to the hospital with purple bruises on several body surfaces. The parents were unable to provide an explanation other than that the baby "bruised easily." Blood tests later revealed that the baby was a hemophiliac; hemophilia is associated with bruising easily, due to blood clotting problems. There is usually a history of bruising easily in families with such inherited diseases.

Other incidents of "easy bruising" in children can be explained by a low blood platelet count. Multiple bruises can occur in children with leukemia. Diseases causing easy bruising, however, are rare, and inflicted bruises are much more common. The medical diagnosis of clotting disorders requires blood tests and interpretation of those tests by qualified physicians. Therefore, law enforcement officers should try to determine if bruises are the result of an accident or due to physical abuse. Police must also remember never to jump to conclusions and to make a complete investigation of all aspects of suspected child abuse. However, their first duty is to secure the safety of the child quickly.

Mongolian spots (a kind of birthmark) also resemble bruises but can be distinguished by their clear-cut margins, the fact that they do not fade, and their steel gray-blue color. Mongolian spots may be found anywhere on the body (but are typically found on the buttocks and lower back). In addition, they are commonly found in African Americans, Asians, and Hispanics. Investigators should await medical reports when investigating such marks.

# Burns

As shown in table 2, certain characteristics of the history, location, or pattern of burns may indicate whether they were nonaccidental.

## Table

### Distinguishing Accidental

#### Indications That Burns May Not Have Been Accidental

##### History

- \* The burns are attributed to siblings.
- \* An unrelated adult brings the child in for medical care.
- \* Accounts of the injury differ.
- \* Treatment is delayed for more than 24 hours.
- \* There is evidence of prior “accidents” or an absence of parental concern.
- \* The lesions are incompatible with the history.

##### Location

- \* The burns are more likely to be found on the buttocks, in the anogenital region (the area between the legs, encompassing the genitals and anus), and on the ankles, wrists, palms, and soles.

##### Pattern

- \* The burns have sharply defined edges. For example, in immersion burns, the line of immersion gives the appearance of a glove or stocking on the child’s hand or foot.
- \* The burns are full thickness (all of the skin, and possibly muscle and bone as well, is destroyed).
- \* The burns are symmetrical.
- \* The burns are older than the reported history indicates.
- \* The burns have been neglected or are infected.
- \* There are numerous lesions of various ages.
- \* The burn patterns conform to the shape of the implement used.
- \* The degree of the burns is uniform (usually indicating forced contact with a hot, dry object), and they cover a large area.

## From Nonaccidental Burns

### Indications That Burns Are More Likely To Be Accidental

#### History

- ✱ The history of the mechanism of the burns is compatible with the observed injury.

#### Location

- ✱ The burns are usually found on the front of the body. They occur in locations reflecting the child's motor activity, level of development, and the exposure of the child's body to the burning agent.

#### Pattern

- ✱ The burns are of multiple depths interspersed with unburned areas and are usually less severe (such as splash burns).
- ✱ The burns are of partial thickness; that is, only part of the skin has been damaged or destroyed.
- ✱ The burns are asymmetrical.
- ✱ Apparently only one traumatic event has occurred, because the skin injuries are all of the same age.

# Poisoning

J.A. Bay's exhaustive review of the world's literature of reported cases of nonaccidental poisoning as a form of child abuse identified certain agents that are commonly used by perpetrators ("Conditions Mistaken for Child Sexual Abuse," in Reece, R.M. (ed.): *Child Abuse: Medical Diagnosis and Management*). The most frequently used agents included barbiturates, psychoactive drugs, tranquilizers, insulin, ipecac, arsenic, laxatives, salt, water, alcohol, marijuana, and opiates. The children poisoned by such agents display a variety of presenting signs and symptoms, but nearly all have major changes in their mental status, ranging from irritability, listlessness, lethargy, stupor, and coma to convulsions. The peak age for *accidental* poisoning is 2 to 3 years, and it is rare under the age of 1 or over the age of 6. The usual history of nonaccidental poisoning is that either the ingestion was not witnessed or that it was administered by a sibling or another child. In addition, the history may change over time.

# Head Injuries

Many fatalities from child abuse involve serious head injuries. Subdural hematomas due to child abuse are most common in children less than 24 months of age, with the peak incidence at about 6 months. The signs and symptoms of subdural hematomas may either be nonspecific, including irritability, lethargy, or a disinclination to eat, or there may be more classic signs of raised intracranial pressure such as vomiting, seizures, stupor, or coma. A subdural hematoma associated with a skull fracture is due to a direct impact to the head and ordinarily leaves external marks. It may be associated with shaking the baby violently or with an extreme blow to the head, such as occurs when children are thrown against a hard object.

Retinal hemorrhages strongly suggest whiplash or shaking as the origin of the injury. The presence of bilateral subdural hematomas is also positively correlated with whiplash or shaking. Therefore, law enforcement personnel need to investigate whether these were nonaccidental injuries.

Hair pulling as a means of discipline may be responsible for hair loss or baldness (alopecia).

## Eye Injuries

- \* External eye injuries are so common in children that they are seldom clear-cut evidence of abuse.
- \* Two black eyes seldom occur together accidentally.
- \* The “raccoon eyes” associated with accidental and nonaccidental fractures at the base of the skull may look similar to each other, but raccoon eyes from nonaccidental trauma usually are associated with more swelling and skin injury. The history helps distinguish between them.
- \* Hyphema, the traumatic entry of blood into the front chamber of the eye, may be the result of a nonaccidental injury caused by striking the eye with a hard object, such as a belt buckle. The child will complain of pain in the eye and have visual problems.
- \* Retinal hemorrhages are the hallmark of shaken baby syndrome and are only rarely associated with some other mechanism of injury.
- \* Nonaccidental trauma must always be considered in a child under 3 years of age who has retinal hemorrhages or any traumatic disruption of the structures of the globe of the eye (e.g., the lens or retina) or the skin around the eye.

## Internal Injuries

- \* Internal organ injuries are second only to head trauma as the most common causes of death in child abuse.
- \* Nonaccidental internal injuries usually involve structures below the diaphragm.
- \* Accidental abdominal injuries usually involve a long fall to a flat surface, a motor vehicle accident or, rarely, are the result of contact sports. Accidental abdominal injuries usually involve older children who are brought to medical attention immediately, whereas children with nonaccidental abdominal injuries will be younger, and a delay in seeking medical attention is more common. Nonaccidental abdominal injuries more commonly involve hollow organs (e.g., the gut and stomach) than accidental injuries, but the liver, spleen, and pancreas can all suffer nonaccidental injury. For some reason, the kidneys are rarely injured.

- ✱ Although there are signs and symptoms, in most cases of abdominal organ injury there are no external signs of trauma. This is due to the pliability of the abdominal wall and its ability to absorb trauma without showing bruises.
- ✱ Unusual clinical findings may indicate abuse.
- ✱ In school-age children, trauma to the pancreas is quite infrequent and usually involves an injury caused by bicycle handlebars or traffic accidents. In infants and toddlers under the age of 3, child abuse must be strongly suspected, since the pancreas is so deep in the abdomen that it is protected from all trauma except blunt force trauma.

## Sudden Infant Death Syndrome

Sudden infant death syndrome (SIDS) is the “sudden death of an infant under one year which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of the clinical history” (Willinger, M., et al., “Defining the Sudden Infant Death Syndrome (SIDS): Deliberations of an Expert Panel Convened by the National Institute of Child Health and Human Development,” *Pediatric Pathology* 11:677–684, 1991). SIDS is unexpected, usually occurring in apparently healthy infants ages 1 month to 1 year. Most deaths from SIDS occur by the end of the sixth month, with the greatest number taking place between ages 2 and 4 months. SIDS is the leading cause of death in the United States among infants between the ages of 1 month and 1 year, and is second only to congenital anomalies as the overall leading cause of death for all infants under 1 year of age (National Sudden Infant Death Syndrome Resource Center, 1993).

In sudden, unexplained infant deaths, investigators, including medical examiners and coroners, use the special expertise of forensic medicine (the application of medical knowledge to legal problems) to arrive at a diagnosis. A definitive SIDS diagnosis cannot be made without a thorough autopsy—including microscopic examination of tissue samples and vital organs—that fails to point to any other possible cause of death. Also, if the cause of the infant’s death is ever to be uncovered, it will be from evidence gathered during a thorough pathological examination. Often, the cause of an

infant's death can only be determined by carefully collecting and evaluating information from the death scene and conducting forensic tests. Investigators should also carefully review the child's and child's family's history of previous illnesses, accidents, or behaviors. Review of these details may further corroborate what is detected in the autopsy or death scene investigation. Investigators should be sensitive, yet thorough. Criteria for distinguishing SIDS from death caused by child abuse are presented in table 3. The following is a list of key points relative to SIDS:

- \* SIDS is a diagnosis of exclusion following a thorough autopsy, death scene investigation, and comprehensive review of the child and his or her family's case history.
- \* SIDS is a definite medical entity and is the major cause of death in infants after the first month of life, with most deaths occurring between the ages of 2 and 4 months.
- \* SIDS victims appear to be healthy prior to death.
- \* SIDS currently cannot be predicted or prevented, even by a physician.
- \* SIDS deaths appear to cause no pain or suffering; death occurs very rapidly, usually during sleep.
- \* SIDS is not child abuse.
- \* SIDS is not caused by external suffocation.
- \* SIDS is not caused by vomiting and choking or by minor illnesses such as colds or infections.
- \* SIDS is not caused by the diphtheria/pertussis/tetanus (DPT) vaccine or other immunizations.
- \* SIDS is not contagious.
- \* SIDS is not the cause of every unexplained infant death.

## Table 3

Criteria for Distinguishing SIDS From Fatal Child Abuse and Other Medical Conditions<sup>a</sup>

## Consistent With SIDS

## Less Consistent With SIDS

## Highly Suggestive or Diagnostic of Child Abuse

## Circumstances surrounding death

An apparently healthy infant fed and put to bed. Found lifeless (silent death). EMS<sup>†</sup> resuscitation unsuccessful.

Infant found not breathing. EMS transports to hospital. Infant lives hours to days. History of substance abuse or family illness.

History is not typical of SIDS<sup>†</sup> or there is a discrepant or unclear history. Prolonged interval between bedtime and death.

## Age of child

Peak: 2–4 months (90% < 7 months).  
Range: 1–12 months

8–12 months

>12 months

## Physical examination and laboratory studies at time of death

Bloody, watery, frothy, or mucous nasal discharge. PM<sup>†</sup> lividity in dependent areas (portions of the body that are lower—due to gravity, the blood settles). Sometimes

Organomegaly of the viscera (enlargement of the organs). Diagnostic signs of a disease process (by PE<sup>†</sup>, laboratory tests, x-ray).

Skin injuries. Traumatic injuries to body parts: mucous membranes of the eyelids, fundi (part of the eye opposite the pupil), scalp, inside of the mouth, ears, neck,



there are marks on pressure points (places where a blood vessel runs near a bone, such as where pressure is applied to stop bleeding). No skin trauma. Apparently well-cared-for baby.

trunk, anus or genitals, and extremities. Evidence of malnutrition, neglect, or fractures may also be present.

## History of pregnancy, delivery, and infancy

Prenatal care ranged from minimal to maximal. Frequently, mothers used cigarettes during pregnancy. Some victims were premature or had LBW<sup>†</sup>. Newborns showed minor defects with regard to their feeding and general temperament. Less height and weight gain after birth. Being a twin or a triplet. Possible history of spitting, GE<sup>†</sup> reflux, thrush, pneumonia, illnesses requiring hospitalization, accelerated breathing or heartbeat, (bluish) discoloration of skin due to lack of oxygen in the blood. Usually no signs of difficulty before death.

Prenatal care was minimal to maximal (therefore, it has no significance in distinguishing SIDS from non-SIDS deaths). Child has history of recurrent illnesses and/or multiple hospitalizations (“sickly” or “weak” baby). Previous specific diagnosis of organ system disease.

Pregnancy was unwanted. Little or no prenatal care. Mother arrived late at hospital for delivery, or birth occurred outside of hospital. Little or no well-baby care. No immunizations. Mother used cigarettes, drugs, and/or alcohol during and after pregnancy. Child described as hard to care for or to “discipline.” Deviant feeding practices were used.

## Table 3 *continued*

### Criteria for Distinguishing SIDS From Fatal Child Abuse and Other Medical Conditions<sup>o</sup>

#### Consistent With SIDS

#### Less Consistent With SIDS

#### Highly Suggestive or Diagnostic of Child Abuse

#### Death scene investigation

Crib or bed in good repair. No dangerous bedclothes, toys, plastic sheets, pacifier strings, or pillows stuffed with pellets. No cords, bands, or other possible means of entanglement. An accurate description was provided of the child's position, including whether there was head or neck entrapment. Normal room temperature. No toxins or insecticides present. Good ventilation, furnace equipment.

Defective crib or bed or inappropriate sheets, pillows, or sleeping clothes. Presence of dangerous toys, plastic sheets, pacifier cords, pellet-stuffed pillows. Evidence that child did not sleep alone. Poor ventilation and heat control. Presence of toxins or insecticides. Unsanitary conditions.

Chaotic, unsanitary, and crowded living conditions. Evidence of drug or alcohol use by caretakers. Signs of a struggle in crib or other equipment. Blood-stained bedclothes. Evidence of hostility, discord, or violence between caretakers. Admission of harm, or accusations by caretakers.

#### Previous infant deaths in family

No previous unexplained or unexpected infant deaths.

One previous unexplained or unexpected infant death.

More than one previous unexplained or unexpected infant death.

## Autopsy findings

No adequate cause of death at PM. Normal skeletal survey, toxicological findings, chemistry studies (blood sugar may be high, normal, or low), microscopic examination, and metabolic screen. Presence of changes in certain organs thought to be more commonly seen in SIDS than in non-SIDS deaths. Occasionally, subtle changes in liver, including fatty change and blood forming in the liver (not a normal site for blood production).

Subtle changes in liver, adrenal glands, and the heart muscle (myocardium).

Traumatic cause of death (IC<sup>†</sup> or visceral bleeding). External bruises, abrasions, burns. Evidence of malnutrition, fractures, or scalp bruises. Abnormal body chemistry values: Na<sup>†</sup>, Cl<sup>†</sup>, K<sup>†</sup>, BUN<sup>†</sup>, sugar, liver and pancreatic enzymes, and CPK<sup>†</sup>. Abnormal toxicological findings.

## Previous involvement of child protective services or law enforcement

None.

One.

Two or more. One or more family members arrested for violent behavior.

\*Adapted from Reece, R.M. Fatal child abuse and sudden infant death syndrome: A critical diagnostic decision. *Pediatrics* 91(2):423, 1993. Reproduced by permission of *Pediatrics*.

†Abbreviations: BUN, blood urea nitrogen; Cl, chlorine; CPK, creatinine phosphokinase; EMS, emergency medical services; GE, gastroesophageal; IC, intracranial; K, potassium; L/BW, low birth weight; Na, sodium; PE, physical examination; PM, postmortem; SIDS, sudden infant death syndrome.

## Investigator's Checklist for Use in Suspected Cases of Physical Child Abuse

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Far too often police investigating a child's injuries will let their emotions interfere. It should be remembered that the child abuse investigation process, if performed correctly, will ultimately determine which injuries were nonaccidental. The following are some important questions and issues to be considered when investigating a suspected case of child abuse.

- Begin by asking questions about the child's family history, substance abuse or other environmental factors in the home, and the parents' marital status, employment history, or unrealistic expectations of the child.
- How could the child's behavior or the caretaker's stress have contributed to the crisis?
- Could the child do what the caretakers told you he or she did?
- Is the child a "target" child (a child perceived by the parent(s) as having negative characteristics), or are there target children present?
- Was there any delay in treatment or was hospital "shopping" involved?
- What are the locations, configurations, and distributions of the bruises, welts, lacerations, abrasions, or burns?
- Do the injuries appear to have been caused by the hands or an instrument? Can you determine what instrument might have been used?
- Are multiple injuries (in various stages of healing) present?
- Are the injuries within the primary target zone (the back, from the neck to the back of the knees and including the shoulders and arms) and on more than one leading edge (the outside of the arm or leg, etc.) of the body?
- Can you determine the positions of the offender and the child during the attack?
- Is there any evidence of attempts to hold the child in a certain position or at a certain angle during the attack? Are there such control marks on the wrists, forearms, or biceps?
- Was a careful check made for injuries on the head, mouth, ears, and nose?

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## Supplemental Reading

### General

Duhaime AC et al. Head injury in very young children: Mechanisms, injury types and ophthalmic findings in 100 hospitalized patients younger than 2 years of age. *Pediatrics* 90:179, 1992.

Duhaime AC et al. The shaken baby syndrome: A clinical, pathological and biomechanical study. *Journal of Neurosurgery* 66:409, 1987.

Hight DW et al. Inflicted burns in children. *Journal of the American Medical Association* 242:517, 1979.

Kessler DB, Hyden P. *Physical, Sexual, and Emotional Abuse of Children. (CIBA-GEIGY Clinical Symposia, Vol. 43, No. 1).* Summit, NJ: Pharmaceuticals Division, CIBA-GEIGY Corporation, 1991.

- Kleinman PK (ed). *Diagnostic Imaging of Child Abuse*. Baltimore: Williams & Wilkins, 1987.
- Ledbetter DJ et al. Diagnostic and surgical implications of child abuse. *Archives of Surgery* 123:1101, 1988.
- Ludwig S, Kornberg A (eds). *Child Abuse: A Medical Reference*. 2d ed. New York: Churchill Livingstone, 1992.
- McNeese MC, Hebel JR. *The Abused Child: A Clinical Approach to Identification and Management*. (CIBA Clinical Symposia, Vol. 29, No. 5). Summit, NJ: CIBA Pharmaceutical Company, Division of CIBA-GEIGY Corporation, 1977.
- Merten DF et al. The abused child: A radiological reappraisal. *Radiology* 146:377, 1983.
- Pascoe JM et al. Patterns of skin injury in nonaccidental and accidental injury. *Pediatrics* 64:245, 1979.
- Reece RM (ed). *The Quarterly Child Abuse Medical Update*. Published by the Institute for Professional Education of the Massachusetts Society for the Prevention of Cruelty to Children. Abstracts of the latest information on the subject of child abuse from more than 40 medical journals.
- Reece RM (ed). *Child Abuse: Medical Diagnosis and Management*. Malvern, PA: Lea and Febiger, 1994.
- Reece RM, Grodin M. Recognition of nonaccidental injuries. *Pediatric Clinics of North America* 32:41-60, 1985.
- Saywitz KJ. Developmental considerations for forensic interviewing. *The Interviewer* 3:15, 1990.
- Shepherd J, Dworn B, Farley R, Russ B, Tressler P. *Child Abuse and Exploitation: Investigative Techniques*. U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention, 1992.
- Whitcomb D. *When the Victim Is a Child*. 2d ed. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice, 1992.
- Worlock T et al. Patterns of fractures in accidental and non-accidental injury in children. A comparative study. *British Medical Journal* 293:100, 1986.

## Sudden Infant Death Syndrome

National Sudden Infant Death Syndrome Clearinghouse. *Death Investigations and Sudden Infant Death Syndrome: A Selected Annotated Bibliography*. U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Maternal and Child Health Bureau, September 1991.

National Sudden Infant Death Syndrome Clearinghouse. *The Professional's Role in Sudden Infant Death Syndrome: A Selected Annotated Bibliography*. U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Maternal and Child Health Bureau, September 1991.

National Sudden Infant Death Syndrome Resource Center. *Sudden Infant Death Syndrome Research: A Selected Annotated Bibliography for 1995*. McLean, VA: U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Maternal and Child Health Bureau, May 1994.

National Sudden Infant Death Syndrome Resource Center. *Sudden Infant Death Syndrome Risk Factors: A Selected Annotated Bibliography for 1989–1995*. McLean, VA: U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Maternal and Child Health Bureau, May 1994.

National Sudden Infant Death Syndrome Resource Center. *Sudden Infant Death Syndrome: Trying To Understand the Mystery*. McLean, VA: U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Maternal and Child Health Bureau, February 1994.

National Sudden Infant Death Syndrome Resource Center. *What is SIDS? (Information Sheet)*. McLean, VA: U.S. Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Maternal and Child Health Bureau, May 1993.

Willinger M, James LS, Catz C. Defining the sudden infant death syndrome (SIDS): Deliberations of an expert panel convened by the National Institute of Child Health and Human Development. *Pediatric Pathology* 11:677–684, 1991.

## Organizations

### General

Missing and Exploited Children's Training Programs  
Fox Valley Technical College  
Criminal Justice Grants Department  
P.O. Box 2277  
1825 North Bluemound Drive  
Appleton, WI 54913-2277  
800-648-4966  
920-735-4757 (fax)  
dept.fvtc.edu/ojjdp

Participants are trained in child abuse and exploitation investigative techniques, covering the following areas:

- \* Recognition of signs of abuse.
- \* Collection and preservation of evidence.
- \* Preparation of cases for prosecution.
- \* Techniques for interviewing victims and offenders.
- \* Liability issues.

Fox Valley also offers intensive special training for local child investigative teams. Teams must include representatives from law enforcement, prosecution, social services, and (optionally) the medical field. Participants take part in hands-on team activity involving:

- \* Development of interagency processes and protocols for enhanced enforcement, prevention, and intervention in child abuse cases.
- \* Case preparation and prosecution.
- \* Development of the team's own interagency implementation plan for improved investigation of child abuse.

National Center for Prosecution of Child Abuse  
American Prosecutors Research Institute (APRI)  
99 Canal Center Plaza, Suite 510  
Alexandria, VA 22314  
703-549-9222  
703-836-3195 (fax)  
[www.ndaa-apri.org/apri/programs/ncpca/index.html](http://www.ndaa-apri.org/apri/programs/ncpca/index.html)



The National Center for Prosecution of Child Abuse is a nonprofit and technical assistance affiliate of APRI. In addition to research and technical assistance, the Center provides extensive training on the investigation and prosecution of child abuse and child deaths. The national trainings include timely information presented by a variety of professionals experienced in the medical, legal, and investigative aspects of child abuse.

## Sudden Infant Death Syndrome

American SIDS Institute  
2480 Windy Hill Road, Suite 380  
Marietta, GA 30067  
800-232-7437  
770-612-1030  
[www.sids.org](http://www.sids.org)

Association of SIDS and Infant Mortality Programs  
c/o Minnesota SIDS Center  
Children's Hospitals and Clinics  
2525 Chicago Avenue South  
Minneapolis, MN 55404  
612-813-6285  
[www.asipl.org](http://www.asipl.org)

Center for Infant & Child Loss  
University of Maryland School of Medicine  
630 West Fayette Street, Room 5-691  
Baltimore, MD 21201  
800-808-7437  
[www.infantandchildloss.org](http://www.infantandchildloss.org)

National SIDS Resource Center  
2070 Chain Bridge Road, Suite 450  
Vienna, VA 22182  
703-821-8955, ext. 249  
[www.sidscenter.org](http://www.sidscenter.org)

SIDS Alliance  
1314 Bedford Avenue, Suite 210  
Baltimore, MD 21208  
800-221-7437  
410-653-8226  
[www.sidsalliance.org/index/default.asp](http://www.sidsalliance.org/index/default.asp)

Southwest SIDS Research Institute  
Brazosport Memorial Hospital  
100 Medical Drive  
Lake Jackson, TX 77566  
800-245-7437  
409-297-4411  
[www.swsids.hicd.com/index.html](http://www.swsids.hicd.com/index.html)

## Other Titles in This Series

Currently there are 12 other Portable Guides to Investigating Child Abuse. To obtain a copy of any of the guides listed below (in order of publication), contact the Office of Juvenile Justice and Delinquency Prevention's Juvenile Justice Clearinghouse by telephone at 800-638-8736 or e-mail at [puborder@ncjrs.org](mailto:puborder@ncjrs.org).

*Sexually Transmitted Diseases and Child Sexual Abuse*, NCJ 160940

*Photodocumentation in the Investigation of Child Abuse*, NCJ 160939

*Diagnostic Imaging of Child Abuse*, NCJ 161235

*Battered Child Syndrome: Investigating Physical Abuse and Homicide*,  
NCJ 161406

*Interviewing Child Witnesses and Victims of Sexual Abuse*,  
NCJ 161623

*Child Neglect and Munchausen Syndrome by Proxy*, NCJ 161841

*Criminal Investigation of Child Sexual Abuse*, NCJ 162426

*Burn Injuries in Child Abuse*, NCJ 162424

*Law Enforcement Response to Child Abuse*, NCJ 162425

*Understanding and Investigating Child Sexual Exploitation*,  
NCJ 162427

*Forming a Multidisciplinary Team To Investigate Child Abuse*,  
NCJ 170020

*Use of Computers in the Sexual Exploitation of Children*, NCJ 170021

# Additional Resources

American Bar Association  
(ABA) Center on Children  
and the Law  
Washington, DC  
202-662-1720  
[www.abanet.org/child/  
home.html](http://www.abanet.org/child/home.html)

American Humane Association  
Englewood, Colorado  
800-227-4645  
303-792-9900  
[www.americanhumane.org](http://www.americanhumane.org)

American Medical Association  
(AMA)  
Chicago, Illinois  
312-464-5000  
[www.ama-assn.org](http://www.ama-assn.org)

American Professional Society  
on the Abuse of Children  
(APSAC)  
Oklahoma City, OK  
405-271-8202  
[www.apsac.org](http://www.apsac.org)

Federal Bureau of Investigation  
(FBI)  
202-324-3000  
[www.fbi.gov](http://www.fbi.gov)

National Center for the  
Analysis of Violent Crime  
[www.fbi.gov/hq/isd/cirg/  
ncavc.htm](http://www.fbi.gov/hq/isd/cirg/ncavc.htm)

Crimes Against Children  
Program  
[www.fbi.gov/hq/cid/cac/  
crimesmain.htm](http://www.fbi.gov/hq/cid/cac/crimesmain.htm)

Juvenile Justice Clearinghouse  
(JJC)  
Rockville, Maryland  
800-638-8736  
[ojjdp.ncjrs.org/about/  
clearh.html](http://ojjdp.ncjrs.org/about/clearh.html)

Kempe Children's Center  
Denver, Colorado  
303-864-5252  
[www.kempecenter.org](http://www.kempecenter.org)

Missing and Exploited  
Children's Training Program  
Fox Valley Technical College  
Appleton, Wisconsin  
800-648-4966  
[dept.fvtc.edu/ojdp](http://dept.fvtc.edu/ojdp)

National Association of  
Medical Examiners  
St. Louis, Missouri  
314-577-8298  
[www.thename.org](http://www.thename.org)

National Center for Missing  
and Exploited Children  
(NCMEC)  
Alexandria, Virginia  
800-THE-LOST  
703-274-3900  
[www.missingkids.com](http://www.missingkids.com)

National Center for Prosecution  
of Child Abuse  
Alexandria, Virginia  
703-549-9222  
[www.ndaa-apri.org/apri/  
programs/ncpca/index.html](http://www.ndaa-apri.org/apri/programs/ncpca/index.html)

National Children's Alliance  
Washington, DC  
800-239-9950  
202-452-6001  
[www.nncac.org](http://www.nncac.org)

National Clearinghouse  
on Child Abuse and  
Neglect Information  
Washington, DC  
800-394-3366  
703-385-7565  
[www.calib.com/nccanch/](http://www.calib.com/nccanch/)

National SIDS Resource Center  
Vienna, Virginia  
703-821-8955  
[www.sidscenter.org](http://www.sidscenter.org)

Prevent Child Abuse America  
Chicago, Illinois  
312-663-3520  
[www.preventchildabuse.org](http://www.preventchildabuse.org)

**U.S. Department of Justice**

Office of Justice Programs

*Office of Juvenile Justice and Delinquency Prevention*

*Washington, D.C. 20531*

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