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Pediatrics in Review 2012;33;19
DOI: 10.1542/pir.33-1-19

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**Sexual Abuse**

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**Author Disclosure**
Drs Fortin and Jenny have disclosed no financial relationships relevant to this article. This commentary does not contain a discussion of an unapproved/investigative use of a commercial product/device.

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**Objectives**

After completing this article, readers should be able to:

1. Understand the definition and epidemiology of sexual abuse.
2. Know when to suspect sexual abuse, and know which behaviors are normal and which are suggestive of abuse.
3. Recognize that a sexually transmitted disease may be an indicator of sexual abuse.
4. Be aware of the recommended methods for taking a history when there is concern about sexual abuse.
5. Know the proper techniques for examining a child when sexual abuse is possible, and how to interpret physical findings. Be aware that a normal physical examination does not rule out sexual abuse.
6. Be familiar with techniques for collecting forensic evidence and the value of laboratory testing.
7. Know the psychological and legal aspects of sexual abuse, and be aware of treatment plans and methods for prevention.

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**Introduction**

It is almost certain that pediatricians will encounter child sexual abuse over the course of their careers. Sexual abuse is prevalent. Sexually abused children present for medical care in a variety of clinical contexts. The evaluation and treatment of child sexual abuse involves multidisciplinary collaboration. The health professional’s role includes addressing the physical and mental health consequences of abuse. Physicians are mandated to report suspected abuse to authorities.

In this article, history taking, physical examination, forensic evidence collection, laboratory testing, sexually transmitted infections (STIs), interpretation of clinical findings, psychosocial outcomes, legal considerations, and treatment will be discussed. Pediatricians might choose to consult with a health professional specializing in the management of child sexual abuse, depending on the clinical context, the physician’s level of ease with components of the evaluation, and local resources.

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**Background Information**

Child sexual abuse occurs when a child is engaged in a sexual situation. Some cases of sexual abuse involve physical contact between the victim and the perpetrator, with or without oral, anal, or vaginal penetration. In other cases, there is no touching (eg, a child is made to watch sexual acts or pornography). In the majority of cases, perpetrators are not strangers, but are known to the victim through relationships such as being relatives, family friends, neighbors, or community volunteers. (1)(2)(3) In many instances, perpetrators “groom” their victims and use threats, manipulation, or coercion as opposed to physical force. (2)(3) Delay between the onset of abuse and disclosure is common. Adults surveyed about past experiences of child sexual abuse often report that they did not tell anyone about their abuse during childhood. (4)(5) One study found that approximately one-quarter of sexual abuse victims retract their statements of abuse at some point, (6) and recantation does not rule out sexual abuse.
Epidemiology

Measures of sexual abuse frequency vary, depending on factors such as data source, definition of sexual victimization, and study population. The 2005–2006 National Incidence Study found that the incidence of sexual abuse cases that came to the attention of investigators or other community professionals was 2.4/1,000 US children under the age of 18 years. (7) A 2005 telephone survey of children and caregivers by Finkelhor et al evaluated the frequency of sexual victimization in a nationally representative sample of children in the United States. Overall, 82/1,000 (1 in 12) children aged 2 to 17 years experienced sexual victimization such as sexual assault, sexual harassment, or flashing in the study year, including 67/1,000 boys, 96/1,000 girls, and 168/1,000 teenagers. (8)

Other studies have estimated the frequency of child sexual abuse by asking adults about their childhood experiences. A frequently cited Los Angeles Times survey found that 27% of women and 16% of men reported childhood sexual abuse. (4) Because it is not possible to account for undisclosed cases of sexual abuse, measures of frequency probably underestimate the true scope of child sexual abuse.

As reflected by these data, sexual victimization is more common among girls than among boys. Boys, however, might be less likely to disclose sexual abuse and might be victimized more often than the reported gender ratios suggest. Compared with other age groups, teenagers have the highest rates of sexual assault. (9) Physical disabilities, prior sexual victimization, and absence of a protective parent are other potential risk factors. (1)(2)(9)(10)

Clinical Presentation

Health professionals caring for children can encounter instances of child sexual abuse in different contexts. Patients sometimes present for evaluation soon after an episode of suspected abuse. In many cases, however, disclosures of sexual abuse are delayed, and therefore medical attention is sought outside of the acute period. Some patients are brought to medical attention by way of involvement with community agencies such as child protective services or law enforcement agencies. In other cases, victims and their families turn to health care providers first.

Disclosure of sexual abuse generally leads to a medical evaluation. Children present after they have made a statement of abuse to a professional, such as a social worker, teacher, or law enforcement agent, or to a nonprofessional such as a parent or a friend.

Concern for sexual abuse also can be raised in children who have not disclosed abuse. Sexual abuse enters the differential diagnosis when children exhibit worrisome sexual behaviors. Sexual behavior problems must be differentiated from developmentally normal behaviors. Examples of normal behaviors in preschool-aged children include undressing in front of others, touching one’s own genitals, and trying to look at others undressing. Research, including Freidrich et al’s study of >800 children, has shown that transient, developmentally appropriate behaviors are common among children who have not been sexually abused. (11)(12) The pediatrician can reassure parents in cases of developmentally appropriate, transient behaviors.

In contrast, behaviors such as coercing others to engage in sexual acts or explicitly imitating intercourse are uncommon and warrant comprehensive evaluation. (11)(12) Children who have sexualized behavior problems may engage siblings or peers in sexual acts; immediate intervention is required to ensure that all children involved are protected. No behavior is in and of itself diagnostic of sexual abuse. The differential diagnosis for sexual behavior problems also includes exposure to violence in the home, emotional abuse, neglect, conduct disorder, witnessing sexual acts, and exposure to sexual materials. Community resources, including mental health professionals and pediatric subspecialists in child abuse pediatrics, can assist pediatricians in evaluating sexual behaviors. A 2009 clinical report issued by the American Academy of Pediatrics (AAP) discusses childhood sexual behaviors in detail. (12)

A study of 112 children aged 3 to 7 years found that children with a sexual abuse history were more likely to include genitalia in their drawings in comparison with controls. (13) It is important to note that, although drawing of genitalia raises concern for sexual abuse, it is not diagnostic of sexual abuse in and of itself.

Sexually abused children also can present with nonspecific physical or emotional complaints, such as unexplained abdominal pain, genital pain, encopresis, school failure, or sleep disturbance. The vast differential diagnoses for these nonspecific presenting complaints include both organic pathology and a range of psychological stressors. When concern is raised for sexual abuse because of a non-specific presenting complaint, questioning about stressors, including abuse, should be conducted in an open-ended, nonleading, developmentally appropriate manner. Nonspecific symptoms in isolation are not diagnostic of sexual abuse.

In rare cases, specific medical findings will be the initial indication that sexual abuse has occurred. The presence
of sperm in a sample taken directly from a child’s body and pregnancy are examples of medical findings that are diagnostic of sexual contact. (14)

**Overview of the Medical Management of Child Sexual Abuse**

As with medical evaluations for other pediatric complaints, components of medical evaluations for sexual abuse include history taking, physical examination, laboratory testing, and treatment planning. In addition, forensic evidence collection is indicated in some cases; in all cases, physicians are mandated to report suspected child abuse to the proper authorities in their jurisdiction.

There are many variables to consider when patients present for evaluation of sexual abuse, such as patient age and timing since the last episode of suspected abuse. Medical evaluations are tailored to the given context to ensure comprehensive evaluation and intervention. For example, there will be significant differences between the evaluation of a teenage victim of acute sexual assault and that of a preschooler who disclosed sexual abuse occurring 1 month ago. Specialists with training and experience in the management of child sexual abuse can provide consultation.

**Medical History Taking**

The medical history is often the most important part of a sexual abuse evaluation. Objectives in obtaining the medical history include:

1. Gather information needed to guide the medical evaluation (eg, determine the need for forensic evidence collection or testing for STIs).
2. Gather information needed to establish a medical treatment plan (eg, determine if postexposure prophylaxis is indicated).
3. Detect physical health symptoms related to abuse that require further evaluation and treatment.
4. Detect psychological sequelae of abuse.
5. Identify familial psychosocial consequences of abuse (eg, parental emotional distress, financial concerns).
6. Detect medical problems that are not directly related to the alleged abuse.
7. Assess the immediate safety of the child.

Potential sources of information include other professionals, the child’s caretakers, and the child. Caretakers who accompany the child to the medical evaluation should be supportive, and suspected perpetrators of abuse should not be present. In the absence of extenuating circumstances (eg, child refuses to separate from the caregiver), information sources should be interviewed separately.

**Taking a History From Caretakers**

In cases in which the patient made a statement of abuse before the evaluation, caretakers can be asked about the child’s disclosure. Information about the timing and nature of the suspected abuse is important for making decisions about STI testing, prophylactic treatments, and forensic evidence collection. Information provided about the alleged perpetrator, such as known health problems, history of intravenous drug use, and history of incarceration, is useful in assessing the patient’s risk for STIs. Asking about ongoing contact between the alleged perpetrator and the patient or other children is important in assessing child safety.

On review of systems, a report of dysuria or anogenital pain, bleeding, discharge, or itching could be indicative of infection or injury. Any history of constipation, enuresis, and encopresis also should be reviewed. Age of menarche and date of last menstrual period are pertinent to the assessment of pubertal development, symptoms of pregnancy, and the possibility of menstrual bleeding during physical examination. It is important to conduct a review of psychological and behavioral symptoms. In some cases, patients have symptoms such as suicidal ideation that require immediate mental health intervention. Reports of school failure, sleep disorders, sexually reactive behaviors, nightmares, anxiety, or depression require appropriate referrals and intervention. A history of other abusive or consensual sexual activity should be obtained.

Child sexual abuse also has an impact on the patient’s family. (15) In obtaining a social history, it is important to identify household members. Child protective services can collaborate to determine if other children in the home have been witnesses or victims of abuse. Financial concerns might be raised in cases where the alleged perpetrator was previously a financially contributing household member. The caretakers’ response to a child’s disclosure of sexual abuse is important. Asking about caretakers’ emotional state and support systems can be helpful in optimizing services for the family. Significant concerns for child safety are raised when a caretaker is openly disbelieving of a child’s disclosure and when a caretaker allows further contact between a child and the suspected perpetrator of abuse.

**Taking Histories From Children**

Children’s statements about abuse are a key component of most sexual abuse investigations. There is a breadth of information on obtaining accurate and comprehensive
histories from children suspected of being victims of abuse. Resources include practice guidelines from professional organizations such as the American Professional Society of the Abuse of Children, textbooks, and a growing body of research. (16)(17)(18)

General considerations in asking children questions about abuse include the types of questions asked, the patient’s developmental level, and the number of interviews. Open-ended questions and questions that invite narrative responses are preferred. Examples include, “Tell me why you came to see the doctor today,” and “Tell me everything that happened.” Questions that suggest an answer, such as, “Your uncle touched you, right?” are to be avoided. Compared with adults, children under the age of 10 to 12 years are more suggestible. Children as young as 3 or 4 can provide accurate accounts when questioned properly. Some interviewers may use human figure drawings or free drawings to help build rapport and collect information. Most professional interviewers usually do not interview children under the age of 3 years, depending on the child’s level of language development. Children should be interviewed separately from their caretakers in the absence of extenuating circumstances.

Avoid interviewing a child multiple times unnecessarily. In many communities, children’s advocacy centers coordinate community agencies and professionals to minimize the number of interviews. The first was established in Huntsville, Alabama, in 1985. There are now >700 children’s advocacy centers in the United States offering a multitude of services. Further information and center locations can be found at http://www.nationalchildrensalliance.org. Professionals with specialized knowledge, such as child protective services investigators, trained forensic interviewers, or law enforcement officers, conduct investigative interviews. This action does not exclude health providers from obtaining medical history for the purposes of medical evaluation and treatment planning. Physical, behavioral, and psychological symptoms as outlined above can be reviewed with patients when developmentally appropriate. In some instances, children make spontaneous statements about abuse in the course of a medical visit. These statements should be documented carefully in the medical record.

In many jurisdictions, forensic interviews are video- or audio-taped. In many medical settings, however, audiovisual recording is not feasible nor is it common practice, and written documentation is used. Written documentation of children’s statements about abuse should contain the questions asked in addition to the child’s responses. The child’s exact words in quotations should be included where possible.

Professional interviewers sometimes use media such as anatomic drawings or anatomic dolls. (17)(19) Anatomic dolls have genitalia, anal and mouth openings, and developmentally appropriate secondary sex characteristics. The use of anatomic dolls has given rise to academic and legal debate. One of the main challenges to the use of anatomic dolls is concern for suggestibility. On the other hand, research studies demonstrate that anatomic dolls can be used nonsuggestively and may enhance children’s ability to describe an abusive event. The use of anatomic dolls should be reserved for professionals with specialized training in interviewing.

**Physical Examination**

**Objectives**

Objectives of the physical examination completed in the context of a sexual abuse evaluation include:

1. Recognize injuries that require immediate medical attention.
2. Identify anogenital abnormalities, including conditions that mimic injuries (eg, lichen sclerosis), and interpret physical findings appropriately (eg, normal variant, nonspecific, indeterminate, indicative of trauma).
3. Detect signs of STI.
4. Identify injuries outside of the anogenital region (eg, mouth, chest, extremities).
5. Recognize signs of self-injurious behaviors (eg, scars from cutting).
6. Address patient concerns about physical health that may arise subsequent to abuse.
7. Collect forensic evidence.

**Comprehensive Examination**

Physical examination in the context of a sexual abuse evaluation is not limited to the anogenital region. A comprehensive head to toe examination is indicated. Victims of sexual assault can sustain physical injuries outside of the anogenital region. Some injuries require immediate medical attention (eg, uncontrolled bleeding, injury to the airway or viscera). The oral cavity should be examined carefully for signs of injury to the teeth and soft tissues. Skin injuries such as bruises and bite marks should be identified and documented carefully. When possible, photographing findings is helpful. Psychological symptoms can manifest physically in the form of sequelae from self-mutilating behaviors, such as cutting. In addition, a 2006 study by Giradet et al demonstrated that health problems unrelated to sexual assault, such as dental caries, decreased visual acuity, pediculosis, tinea, heart murmurs,
and otitis media, were identified frequently in the course of sexual assault evaluations. (20)

A Normal Examination Does Not Rule Out Sexual Abuse
A normal physical examination does not exclude the possibility of sexual abuse or prior penetration. The majority of sexual abuse victims have normal anogenital examinations. Multiple research studies demonstrate a low prevalence of definitive physical findings among victims of sexual abuse. (21)(22)(23)(24) In a case control study of close to 400 prepubertal children, Berenson et al found that, in the majority of cases, genital examinations did not differ between sexually abused children and controls. Physical findings specific to previous genital trauma were found in only 2.5% of abused children. (23) Kellogg et al studied a cohort of 36 pregnant adolescents who underwent sexual abuse evaluations. Only 5.5% of the pregnant teenagers had definitive findings of penetration on genital examination. (24)

Reasons for the absence of definitive physical findings subsequent to sexual abuse include:
1. With some forms of abuse, sexual victimization would not be expected to result in injury. Some forms of sexual victimization, such as exhibitionism and voyeurism, do not involve physical contact between the perpetrator and the victim. It follows that there is no resultant physical injury. In some cases, children are solicited to touch the perpetrator's genitals, another example of sexual abuse occurring without anogenital injury to the victim. Genital fondling or oral contact to body parts can occur without tissue damage. Furthermore, penetration of the genitalia includes not only penetration of the vagina but also penetration between the labia. Penetration of the labia without penetration of the hymen will not result in hymenal tearing.
2. Penetrated tissues are sometimes stretched without injury. Hymenal and anal tissues have the ability to stretch. Although it is a common misconception that the hymen is always damaged at coitarche, in actuality, the hymen can remain undamaged after penetration. The anus also has the ability to stretch and remain uninjured subsequent to penetration.
3. Injuries can heal by the time of the medical evaluation. Mucosal and epithelial tissues can heal rapidly between sexual victimization and disclosure of abuse. (25)(26) McCann et al studied the healing of hymenal injuries and found that hymenal petechiae resolved within 48 to 72 hours. (26)

In some instances, caregivers believe that a physical examination will determine if their child has been sexually abused. Patients, jurors, and nonmedical professionals may share this misconception as well. It is important to communicate that a normal examination does not rule out sexual abuse, and that the majority of sexually abused children do not have specific anogenital examination findings proving they were abused.

Anogenital Examination
Physical examination should not cause added trauma. Explanations to parents and the child before, during, and after the examination can ease stress. Supportive, nonoffending caretakers also can be comforting to the child. Older patients can indicate if they prefer to undergo the examination with or without their caretaker in the examination room. The AAP Committee on Practice and Ambulatory Medicine has published guidelines on the use of chaperones during the examination of pediatric patients. (27) Suspected perpetrators should never be present. Patients who refuse should not be forced to undergo an examination. The use of sedation is not routine practice but can be considered in rare cases where the examination is vital (example, active vaginal bleeding) and where the patient cannot tolerate the examination without it.

The physical examination can have a positive psychological impact on patients. Victims of sexual abuse often fear their bodies have been damaged by abuse and are relieved to learn that they are in good health. Mears et al studied adolescents' responses to sexual abuse evaluations and found that, whereas some found the examination embarrassing or painful, the majority (78.9%) agreed that the examination helped them to feel better. (28)

When examining girls, it is important to know the appropriate terminology for the genital structures. Figure 1 shows names of common structures of the prepubertal introitus.

Gender, age, and pubertal stage influence examination procedures. In girls, estrogen influences hymenal morphology. In the newborn period, the hymen appears thick and redundant under the influence of maternal estrogen. The hymen changes in morphology during the first years of life. (29) The unestrogenized prepubertal hymen appears thin, more translucent, and redder in color, and vasculature can be visible (Fig 2). After pubertal estrogenization, the hymen appears thicker, paler, and redundant (Fig 3). It is important to recognize physiological differences in hymenal morphology during childhood and adolescence.
Some examination techniques involve contact with the hymen. For example, moistened swabs can be used to unfold the hymen to visualize the hymenal rim. Prepubertal patients are unable to tolerate such techniques because the hymen is very sensitive to touch during this period of development. Likewise, prepubertal patients would not tolerate speculum examinations. In the rare cases in which an internal examination is required in a prepubertal child (eg, uncontrolled vaginal bleeding, foreign body), examination with a speculum or vaginoscopy should be performed under anesthesia.

Different examination positions and techniques can be used to examine vestibular structures. The supine lithotomy position can be used for patients who are older and taller, whereas the supine frog leg position depicted in Fig 4 is used commonly in prepubertal patients. The frog leg position also can be attempted with the patient on the caregiver’s lap; this technique is useful when children are reluctant to get on the examination table. The external surface of the labia majora will be visible when patients are in the examination position. Separation and traction of the labia majora allow for visualization of the vestibular structures. In some instances, the hymenal opening is not readily visible. Adjusting labial traction may facilitate visualization of the hymenal rim. Also, dropping a small amount of normal saline in the vestibule while the patient is in the supine frog-leg position can lead to unfolding of the hymenal edges and improved visualization.

When an abnormality such as a hymenal transection is suspected, an alternate position or technique should be used to confirm the finding. In prepubertal patients, the prone knee-chest position can be used (Fig 4). In pubertal patients, moistened cotton swabs or Foley catheters can be used to unfold the hymen and visualize the posterior rim. Specialists with experience in using these techniques can provide consultation. Colposcopes provide magnification and lighting. In addition, colposcopy often allows for still or video recording of the examination. The colposcope does not come into contact with the patient, and this fact should be explained to children and parents.

Figure 1 depicts normal prepubertal female anatomy. Examination of the female external genitalia includes Tanner (sexual maturity) staging. The labia majora and minora should be evaluated for signs of trauma such as bruising or abrasions. Clitoromegaly should be addressed if it is noted. The urethral meatus should be assessed for discharge or prolapse. The hymen should be examined. When describing the hymen, it is useful to imagine...
a superimposed clock with the 12 o’clock position located anteriorly and the 6 o’clock position located posteriorly. Any irregularities can be described with respect to their position on the clock. The normal hymen can have a variety of configurations; crescentic (hymenal tissue not visible between the 11 and 1 o’clock positions) and annular (presence of circumferential hymenal tissue) configurations are common. Bleeding, discharge, or other abnormalities at the vaginal opening should be assessed. The fossa navicularis, posterior fourchette, and perineal body also should be evaluated.

Examination of the male external genitalia includes evaluation of Tanner stage, glans, and shaft of the penis, urethral meatus, scrotum, and perineum. Injuries such as bruises and bite marks should be noted. Discharge, inguinal adenopathy, and any other abnormality should be addressed as well.

Examination positions for the external anal examination include supine knee-chest and lateral decubitus. Any lesions, scars, or other abnormalities should be noted. Anal findings specific to sexual abuse (e.g., acute laceration not attributed to accidental injury, scar not attributed to medical condition or accidental injury) are not prevalent. Common findings that are not specific to sexual abuse include perianal redness, fissures, and venous congestion or pooling. The latter can be caused by being in the examination position for a prolonged period of time. Digital rectal examination is not indicated routinely.

Interpretation of Examination Findings
When present, medical findings indicative of sexual abuse are significant in criminal investigations, child protection investigations, and courtroom proceedings. In addition, anogenital findings affect medical decisions. For example, genital tract trauma is a risk factor for human immunodeficiency virus (HIV) transmission and can factor into the decision to initiate postexposure prophylaxis after acute sexual assault. Physical findings must be interpreted accurately. Health professionals with expertise in the evaluation of sexual abuse can provide consultation. Findings that are definitively indicative of previous trauma and those that are normal variants or nonspecific to sexual abuse must be differentiated. Research studies by authors such as Adams et al, Berenson et al, and McCann et al...
provide an evidence base for interpreting physical findings. (14)(23)(30) The 2007 article by Adams et al includes a table classifying findings into categories such as:

1. Normal variants (eg, periurethral bands, hymenal tags, shallow hymenal notch, anal skin tag, perianal venous pooling).
2. Findings common to other medical conditions (eg, genital or perianal erythema, labial adhesions, infections such as group A Streptococcus, lichen sclerosis, eczema, anal fissures).
3. Indeterminate findings, in which there are insufficient data to determine definitively the significance of these findings in and of themselves (eg, deep notch or cleft in the posterior rim of the hymen, genital verrucous lesions).
4. Findings indicative of trauma (eg, laceration or bruising of the hymen, genital or perianal bruising, hymenal transections).
5. Findings diagnostic of sexual contact (eg, pregnancy, sperm on a specimen taken directly from patient’s body).

The diameter of the hymenal opening can be influenced by factors such as patient relaxation or labial traction and is not diagnostic of sexual abuse.

The AAP publishes an excellent resource for physicians that explains normal and abnormal genital findings in children, including medical conditions that can mimic trauma. (31)

Forensic Evidence Collection

Another misconception about sexual abuse evaluations held by some families and jurors is that forensic evidence is always present. Given that victims often delay disclosing sexual abuse for days, weeks, or years, it is not possible even to attempt forensic evidence collection in many cases. Furthermore, forensic evidence collection does not always lead to positive results, even when victims present within 72 hours. In a retrospective review, Christian et al found that forensic evidence was identified in one-quarter of prepubertal patients who underwent evidence collection. (32) As with physical findings, forensic evidence is not required to make a diagnosis of child sexual abuse.

Timing and nature of the disclosed abuse are important considerations when determining whether forensic evidence collection is indicated. In most jurisdictions, forensic evidence collection is required if abuse involving the exchange of bodily fluids occurred within 72 hours. This time interval varies by state. It is noteworthy that forensic evidence rarely is found on swabs collected from the bodies of prepubertal children after 24 hours. In Christian et al’s study of prepubertal patients, forensic evidence was more likely to be collected from clothes and household objects, such as sheets and towels, than from a child’s body. (32) No swabs taken from prepuberal patients’ bodies were positive for semen after 9 hours. (32) Blood, hair, semen or sperm, skin (which can be lodged under patients’ fingernails after scratching the alleged perpetrator), trace evidence such as fibers or debris, and saliva are examples of forensic findings. It is important to consider if the disclosed abuse could potentially result in forensic findings. For example, fondling over clothes does not involve contact with the alleged perpetrator’s semen, blood, or saliva.

Standardized forensic evidence collection kits typically include a container that will be identified with patient information, forms (eg, authorization forms, medical history forms), designated swabs and smears (vaginal or anal), body swabs (for secretions, debris, or bite marks), test for DNA comparison (blood, saliva, or buccal sample), collection bags (for underwear, clothing, and debris), collection materials for pubic hair combings, and collection materials for fingernail scrapings. Instructions for collecting, drying, labeling, packaging, and sealing samples usually are included in the kit. Not all components of the kit will be applicable to every patient. For example, pubic hair combings are not applicable to patients who do not have pubic hair. Examiners should wear gloves. Local chain-of-evidence protocols, including transfer and storage of evidence kits, should be followed.

Laboratory Testing

As with other medical conditions, decisions about laboratory testing for sexually abused children are based on clinical data. Testing for STIs, pregnancy, and drug-facilitated abuse sometimes are indicated.

STIs

Approximately 5% of sexually abused children contract an STI from abuse. (12)(33) Thoughtful utilization of laboratory studies will maximize STI detection and minimize unnecessary testing. Clinicians must determine not only whether STI testing is indicated, but also which studies should be performed and how the tests should be timed. The following factors influence decision-making:

1. Characteristics of the disclosed abuse

   a. Type of sexual contact: Digital-genital contact would not increase the patient’s risk for STIs such as HIV, Chlamydia infection, or gonorrhea. Rectal swabs for Chlamydia and gonorrhea should be
considered when there has been a disclosure of receptive genital-anal contact.

b. Timing of the abuse: In addition to testing at the time of initial presentation, patients require repeat testing in cases in which the last episode of abuse was recent. For example, convalescent testing for syphilis and HIV are indicated at 6, 12, and 24 weeks’ postassault. Repeat *Chlamydia* and gonorrhea testing ~2 weeks after the last contact is indicated in cases in which prophylactic treatment was not given. (33)(34)

2. Perpetrator characteristics: Known history of STI, risk factors for STI such as multiple sexual partners.

3. Community prevalence of STI

4. Clinical findings
   a. Symptoms or signs of STI
   b. Physical findings indicative of penetrating trauma
   c. Family history of STI

5. Patients requesting testing or having a high level of concern for STI

Available tests include serologic studies for HIV, syphilis, and hepatitis B. Wet mounts and other studies of vaginal discharge can identify *Trichomonas vaginalis* and bacterial vaginosis. Polymerase chain reaction testing or culture of genital lesions can test for herpes simplex virus. Specimens from the rectum, male urethra, vagina, and urine can be tested for *Chlamydia trachomatis* and *Neisseria gonorrhoeae*. Throat specimens also can be tested for *gonorrhoeae*. (33) Recent studies of *chlamydia* and gonorrhea infections in sexually abused children compared gold standard culture techniques to the newer nucleic acid amplification tests (NAATs). (35)(36) An important advantage of NAATs is that they can be performed on urine samples, thus providing a less invasive testing option. Positive NAAT results can be confirmed by tests that target a different nucleic acid sequence. It is important to ensure that tests used in the context of forensic evaluations are specific. Clinicians should review local testing procedures with child abuse and microbiology specialists.

Just as it is important to interpret physical findings accurately, providers must be aware of the forensic implications of STI. (14)(37) The following are facts to consider when a prepubertal child is diagnosed as having an STI. (33)(37)

1. Confirmed *trachomatis*, gonorrhea, and syphilis are diagnostic of sexual abuse when perinatal and rare nonsexual transmission are excluded.

2. HIV infection is diagnostic of abuse when perinatal transmission or transmission from transfusions or needle sticks are excluded.

3. *Vaginalis* infection is highly suspicious for sexual abuse.

4. Bacterial vaginosis can be unrelated to sexual abuse.

5. Anogenital warts (condyloma acuminata) and genital herpes simplex are suspicious findings. Anogenital warts can be transmitted sexually. There are other modes of transmission, however, including autoinoculation, nonsexual fomite transmission, and vertical transmission. Although anogenital warts raise suspicion for sexual abuse, they are not diagnostic of abuse.

**Pregnancy**

Pregnancy testing should be performed where indicated based on the patient’s pubertal stage and disclosure. A negative result should be ensured before administration of emergency contraception.

**Drug-Facilitated Abuse**

In some cases, perpetrators use drugs such as alcohol, flunitrazepam, γ-hydroxybutyrate, ketamine, benzodiazepines, and antihistamines to facilitate sexual assault. (9) Substances such as flunitrazepam can go undetected when added to a drink. Victims may be unaware that they are being drugged. Symptoms of drug ingestion include somnolence, amnesia, dizziness, and visual disturbances. These drugs are detectable in blood or urine for short periods of time (<12–72 hours). These drugs are not included in routine drug screens. Local resources can guide specimen collection and inform clinicians about available testing procedures.

**Psychosocial Outcomes**

Child sexual abuse is associated with a multitude of negative psychological and social outcomes. Negative outcomes are not limited to childhood and also have been demonstrated among adult survivors. Victims are at increased risk for sequelae such as depression, anxiety, posttraumatic stress disorder, sexualized behaviors, suicide attempts, substance abuse, eating disorders, sleep disturbances, personality disorders, somatization, early pregnancy, school failure, and repeat victimization. (1)(38)(39)

Early detection of psychological sequelae and prompt initiation of treatment are important. In some cases, psychological symptoms are not present initially, but develop over time. It is important to review psychological symptoms not only during the initial evaluation but also on follow-up visits.

Nonoffending caregivers also can experience negative psychosocial consequences. In the majority of cases, the family knows the perpetrator. Nonoffending caregivers
lose relationships in the course of protecting their children. Ending relationships can result in financial strain and housing concerns when the perpetrator was previously a financially contributing household member. Caregivers also may experience negative psychological outcomes such as depression, reliving of previous abuse experiences, and relapses of substance abuse.

Nonoffending caregivers’ responses to sexual abuse affect children’s well being. (40) Caregiver support has been associated with positive emotional and behavioral outcomes among abused children. The importance of the caregivers’ roles in supporting child victims should be reinforced. On the other hand, nonprotective caregivers who allow ongoing contact with the alleged perpetrator place children at risk for revictimization and significant psychological harm. Clinicians should report such concerns for child safety to child protective agencies.

Legal Considerations
In the United States, physicians are required by law to report child abuse. (37) Health providers are mandated to report not only confirmed cases, but also cases where there is reasonable cause to suspect abuse. A summary of state laws and procedures for reporting suspected child abuse can be found at http://www.childwelfare.gov/systemwide/laws%5Fpolicies/.

In many states, a report to both the local child protection agency and law enforcement is required for cases of suspected sexual abuse. Failure to report a case of abuse places the patient and possibly other children at risk for harm. In addition, mandated reporters who fail to report child abuse can face legal ramifications and malpractice actions. As detailed in an AAP policy statement, Health Insurance Portability and Accountability Act (HIPPA) rules do not apply where state laws provide for reporting child abuse. (41) Professionals who make a report of child abuse in good faith are immune from liability by statutes in each state. In some cases, pediatricians question whether a report is indicated. Local child protection agencies and child abuse specialists can be contacted to discuss cases. Examples of scenarios that would not involve a mandated report include isolated nonspecific behavioral symptoms (eg, enuresis, aggression) or isolated nonspecific physical signs such as labial adhesions or vaginal irritation.

Another legal issue that might arise in evaluating patients for sexual abuse is involvement in criminal, juvenile, civil, or family court proceedings. There are different types of court proceedings and different types of witnesses. Some court proceedings involve criminal prosecution, whereas others concern custody of the child. Physicians are asked to testify as fact witnesses or as expert witnesses. Fact witnesses restrict their testimony to the facts of the case, but expert witnesses can provide interpretation and opinion. As discussed in the AAP statement on expert witness participation in civil and criminal proceedings, the new subspecialty of child abuse pediatrics sets high standards for professional conduct in expert witness testimony. Physicians who feel uncomfortable testifying as an expert in cases of child abuse and neglect should consider consultation with a specialist. (42)

Treatment
Treatment plans address physical health, mental health, child safety, and psychosocial concerns. Physicians can prescribe prophylactic medications in some clinical situations. (33) Baseline STI and pregnancy testing should be completed before prophylactic treatment. Prophylactic antibiotics can be used to prevent gonorrhea, Chlamydia infection, Trichomonas infection, and bacterial vaginosis among patients who present within 72 hours of an assault that could potentially result in STI transmission. These prophylactic antibiotics generally are not prescribed for prepubertal patients because, in this age group, the incidence of STI is low, patients are not at high risk for infection to spread to the upper genital tract, and it is generally possible to ensure follow-up testing. (33)

HIV postexposure prophylaxis involves a 28-day course of a two to three drug regimen initiated as soon as possible within 72 hours of potential exposure, and careful follow-up, as well. Risk factors for HIV transmission that might be identified on clinical evaluation include a perpetrator with known or suspected HIV infection, genital tract injury, receptive anal intercourse, absence of condom use, perpetrator with genital ulcer or other STI, and local infection at the exposure site. As detailed in an AAP clinical report, the decision to initiate HIV postexposure prophylaxis involves a careful risk benefit analysis. (43)(44) Table 1 lists options for prophylactic treatment of STIs among adolescents as recommended by the Centers for Disease Control and Prevention. (34)

Emergency contraception should be offered when female pubertal patients present within 72 hours of an assault that could potentially lead to pregnancy. (44) Pregnancy testing should be conducted before treatment. Because nausea is a common adverse effect of emergency contraception, prescription of an antiemetic should be considered. (33)(45) Formulation of hormonal medications, mechanism of action, timing, adverse effects, follow-up, and other considerations are discussed in detail in an AAP policy statement. (45)
Treatment planning also should address the potential mental health consequences of sexual abuse. In some cases, urgent psychiatric referral is indicated (eg, current suicidal ideation). In addition to mental health referrals for patients, counseling services for nonoffending parents often are indicated. Community resources can be activated to help families with social stressors such as housing and financial concerns that arise subsequent to a disclosure of abuse.

Physical and mental health symptoms as well as social stressors should be reevaluated on follow-up visits. In many cases, repeat testing for STI is indicated.

Timing of the Evaluation
When families contact pediatricians about situations of abuse, the need for urgent medical care versus a nonurgent appointment must be assessed. In some instances, urgent medical attention is indicated to treat or prevent health problems, address injuries, ensure safety, or perform forensic evidence collection. In cases in which urgent care is not required, however, scheduling an appointment will allow for nonrepetitive, comprehensive evaluation in a child-friendly setting. Physicians should be aware of local resources for medical evaluation of sexual abuse. Indications for urgent evaluation include, but are not limited to, situations in which:

1. The patient may benefit from prophylactic medical treatment as detailed above.
2. Clinical information is suggestive of anogenital injury (eg, report of injury, anogenital bleeding, or pain).
3. There is a possibility that forensic evidence may be collected (alleged abuse occurred within 72 hours and may involve transfer of biologic material).
4. An urgent child protection response is required (eg, child is not protected from alleged perpetrator or does not have a protective nonoffending caregiver).
5. There is report of an injury or symptom that may require urgent medical treatment.
6. There is report of a symptom that may require urgent mental health evaluation (eg, suicidal ideation).

Prevention
Many sexual abuse prevention programs focus on educating children about safety, appropriate and inappropriate touches, and telling an adult about abusive experiences. Parent education programs are being researched. (46) Technological developments have created a need for campaigns targeting Internet safety. The AAP clinical report on the impact of social media on children addresses healthy Internet use. (47)

Summary
- Child sexual abuse is a common pediatric problem that concerns all pediatric health care providers.
- Management of child sexual abuse is multifaceted and multidisciplinary.
- Specialized health providers can provide consultation, but this availability does not minimize the role of the referring physician who often has ongoing contact with the family.
- Physicians are mandated to report cases of suspected or confirmed sexual abuse.
- In the majority of cases, a child’s statement about sexual abuse is the strongest evidence that abuse has occurred.
• Physical examination is normal in the majority of sexual abuse victims.
• Accurate, evidence-based interpretation of physical and laboratory findings is essential. Normal examinations, normal variants, and findings indicative of sexual contact must be differentiated.
• Forensic evidence collection and prophylactic treatments may be indicated when patients present within 72 hours of an abusive episode, and patients should be triaged accordingly.
• Potentially negative psychosocial outcomes should be addressed for patients and their families on initial evaluation and follow-up.

References

**Parent Resources From the AAP at HealthyChildren.org**

The reader is likely to find material to share with parents that is relevant to this article by visiting this link: http://www.healthychildren.org/English/safety-prevention/at-home/pages/sexual-abuse.aspx.

**PIR Quiz**

Quiz also available online at http://www.pedsinreview.aappublications.org. NOTE: Beginning with this issue, learners can take Pediatrics in Review quizzes and claim credit online only. No paper answer form will be printed in the journal.

**New minimum performance level requirements**

Per the 2010 revision of the American Medical Association (AMA) Physician’s Recognition Award (PRA) and credit system, a minimum performance level must be established on enduring material and journal-based CME activities that are certified for **AMA PRA Category 1 Credit™**. In order to successfully complete 2012 Pediatrics in Review articles for **AMA PRA Category 1 Credit™**, learners must demonstrate a minimum performance level of 60% or higher on this assessment, which measures achievement of the educational purpose and/or objectives of this activity.

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**6. Among the following reported behaviors, the one most suspicious for sexual abuse of a 4-year-old child is:**

A. Humping classmates at preschool.
B. Running around the home nude at bath time.
C. Periodic touching of his or her own genitalia while at home.
D. Taking off underwear in preschool.
E. Trying to observe a parent undressing.
7. You suspect that a 5-year-old girl has been sexually abused. Confirmation of the diagnosis is most likely to come from:
   A. Appropriate interview of the child.
   B. Forensic evidence.
   C. Parental reports.
   D. Physical examination of the genitalia.
   E. Vaginal culture.

8. The most reliable way to conduct an interview with a 5-year-old child who claims her stepfather has sexually abused her is to:
   A. Assure that several interviewers obtain consistent results.
   B. Insist that the interview be videotaped.
   C. Interview the girl with her mother present.
   D. Simply invite the child to tell her story without specific prompting.
   E. Use anatomically correct dolls routinely.

9. Although the majority of sexually abused girls have normal findings on examination of the genitalia, in some cases, there are findings indicative of trauma. The examination finding that is most strongly indicative of sexual abuse in a 6-year-old girl is:
   A. A periurethral band.
   B. Anal skin tag.
   C. Bruising of the labia minora.
   D. Labial adhesions.
   E. Perianal warts.

10. An 8-year-old girl reports chronic sexual abuse by her mother’s boyfriend. Which of the following results of the physical examination and laboratory tests is most specific for the diagnosis of sexual abuse?
    A. Herpetic lesion on her lower lip.
    B. Two perianal warts.
    C. Urine nucleic acid amplification test positive for *Chlamydia trachomatis*.
    D. Wet mount positive for *Gardnerella vaginalis*.
    E. Wet mount positive for *Trichomonas vaginalis*.