

In Training

Medical Evaluation of Suspected Child Sexual Abuse

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What Is Sexual Abuse?

Definitions vary, but any sexual contact between an adult and a child is considered abuse. Children under the age of 12 years cannot “consent” to any sexual activity with an adult. The age at which sexual contact between adolescents must be reported varies from state to state; however, any sexual contact in which force or coercion is used, or which is prohibited because of the relationship of the victim to the suspect (i.e., incest), is always abusive, and is reportable.

Role of the Medical Evaluation in Suspected Sexual Abuse

The medical evaluation is only one part of a comprehensive, multi-disciplinary evaluation when child sexual abuse is suspected. The role of the medical examiner is to:

1. Identify treatable injuries or infections.
2. Collect forensic specimens, if the abuse was recent.
3. Screen for sexually transmitted conditions.
4. Reassure the child that she/he is still “OK” and hasn’t been damaged or injured in a way that won’t heal quickly.
5. Assess the patient and parent’s mental and emotional state and make referrals for counseling and medical followup.
6. Provide accurate documentation of the results of the evaluation, including at least drawings of the appearance of the anal area and genitalia.

7. Be available for court testimony if necessary.
8. Be knowledgeable about the range of normal variations in the appearance of the genitalia and anal area in children, and know when to refer patients with questionable findings.

Obtaining the History

History from the Parent

What does the parent say? How did the abuse come to light? If the child has not made a disclosure, why is the parent suspicious? If the child has made a statement, what exactly did he/she say, and in what context? How did the parent react to the child’s statement?

History from the Child

“Do you know why you are here for a checkup today?”
“I’m a doctor (nurse, etc.) who checks boys and girls, including their boy and girl parts, or privates. Has someone touched you or hurt you in your privates?”
Who, with what, where, how many times, when was last time, where were you, did you bleed, did you hurt afterwards, did any “stuff” come out of his private (if male abuser), did you tell someone?

Symptoms/Behaviors

Ask about: painful urination, pain with bowel movements, bleeding with bowel movements, constipation, vaginal bleeding or discharge, sleep problems, changes in eating habits.

Normal behaviors in young children: Exploring and touching own genitals, “playing doctor,” masturbation, resisting diaper changes, becoming suddenly fearful of strangers (9 months), baths (2–3 years), leaving parents (2–5 yrs).

Non-specific behavior problems: Excessive masturbation, acting-out behavior, temper tantrums, school

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problems, nightmares, bedwetting, soiling, abdominal pain, headaches, excessive clinging behavior, depression, anger, aggression, adolescent risk-taking behaviors.

Behaviors highly suggestive of sexual abuse: Repeatedly touching an adult's genitals, asking adults to touch the child's genitals, acting out sexual behavior with other children, or with toys, talking about or threatening suicide.

When Is a Medical Examination Necessary?

1. If the child is complaining of pain with urination, pain with bowel movements, bleeding from vaginal area, bleeding from anus, or vaginal discharge, a screening exam, involving careful inspection of the genital area and anus should be done.
2. If the child describes being sexually molested, and the last episode was within the past 72 h, or an adult has observed a child being sexually abused within the past 72 h, an "evidential" examination should be done by someone who is skilled in performing these evaluations.
3. If neither of the above criteria are met, the child can be referred to a center where a specialized examination can be done by an experienced physician, nurse, nurse practitioner, or Physician Assistant.

Medical Examination

Position

1. Supine, frog-leg, on mother's lap or exam table, using labial separation and labial traction.
2. Supine, knee-chest: Lying on back, with knees flexed, hands on legs.
3. Lithotomy position, in stirrups: may be helpful in older girls.
4. Prone, knee-chest: Usually well accepted by child. Best position for seeing in the vagina and for visualizing the anal area.

Instruments

The only instrument required for a careful examination of a child's genital and anal area is a good light source. Some type of magnification, however, is very helpful, such as:

1. An otoscope.
2. A camera with a macro lens and flash attachment.
3. A colposcope with an attached camera or video-camera.

A speculum exam of the vagina is indicated in girls who are Tanner stage 3 and above in pubic hair development, but is usually not indicated in prepubertal girls!

In general, a prepubertal child needs to be heavily sedated or asleep under general anesthesia if a speculum is to be inserted into her vagina.

Physical Examination

1. Preparation of the child and parent, explanations.
2. Careful, overall physical exam.
3. Genital examination: slow, non-threatening, enlist child's cooperation, use distraction, explain it is a "just to make sure everything is OK" examination.
4. If child is unable to cooperate with the examination, stop and re-schedule the exam for another time, if possible. (Non-acute exam, no signs of injury or infection currently).
5. If there is active bleeding from the vagina or anus, and child cannot cooperate, an exam under general anesthesia is necessary.
6. Collection of forensic specimens should be done if penetration or ejaculation has been described and child is being seen acutely, but swabs should NOT be taken from the vagina in prepubertal girls unless there is evidence (acute tears) that there has been penetration beyond the hymen.
7. Cultures for sexually transmitted infections may be indicated in adolescent girls, but are usually not indicated in prepubertal children unless they have symptoms of infection at the time of the examination.

Is an examination using a colposcope necessary for adequate evaluation of suspected sexual abuse?

No. But it is very useful for the following reasons:

- a. Provides both magnification and light source.
- b. It is a medical instrument, and puts a distance of 12 inches between the examiner and the child's body, unlike a hand-held camera.
- c. It provides an immediate, magnified look at the genital area and the appearance of the hymenal rim, as well as the peri-anal area.
- d. If equipped with a camera, or videocamera and video printer or recorder, provides excellent documentation of the examination findings for review by the examiner, and for obtaining second opinions about questionable findings. The photographs, prints, or videotapes can also be used for obtaining accurate measurements of the size of the vaginal opening or width of the hymenal rim at areas of apparent narrowing.

Magnified photos are the best method of insuring accurate documentation, case review, and peer review, and are essential in research studies and for teaching other professionals.

Interpreting the Findings on Physical Examination

Normal vs. abnormal, suspicious vs. suggestive, definitive evidence of injury, “consistent with” abuse—*How do we interpret what we see?*

Studies of newborn infants, and of prepubertal children screened for non-abuse have provided essential information as to the wide variation in normal genital findings and peri-anal findings. (See attached Classification System).

Other Medical Conditions

1. Lichen sclerosus et atrophicus. A dermatologic condition commonly affecting the vulvar and perianal skin, causing atrophy, hypopigmentation, friability, and submucosal hemorrhage with minimal trauma or irritation.
2. Urethral prolapse. Most commonly presents as “vaginal” bleeding. May be spontaneous, or brought on by increased intra-abdominal pressure or external trauma.
3. Vaginitis with bloody discharge, may be caused by various organisms, including *Shigella* and *Streptococcus*.
4. Condyloma acuminata in infants under 2 years of age may represent vertical transmission from mother, even if mother did not have visible warts or a history of warts at the time of delivery. Even in older children, warts may be spread by close contact but without sexual abuse.
5. Varicella in the genital area. May present there first, before spreading to other areas of the body.
6. Perianal streptococcal cellulitis. Causes pain, redness, fissuring.
7. Crohn’s Disease, affecting the perianal or vulvar area.
8. Behcet’s Disease, causing ulcers in the genital area, with or without oral lesions.
9. Vulvar Pemphigoid.
10. Atopic dermatitis, contact dermatitis, psoriasis, ulcers or pustules caused by bacterial infection, and a variety of other skin conditions.
11. Anal fissures. These can be caused by hard stools, diarrhea with irritation, and any condition which causes friability of the sensitive perianal skin.

If any of these conditions are found, and the child who is verbal enough gives a credible denial of any sexual

contact, there is no reason to report the case to child protection agencies.

Accidental Injuries

1. Straddle injuries of the genital or anal areas. This type of injury usually causes bruising on the labia or scrotum, but may also cause lacerations anywhere in the perineum, and sometimes the ecchymosis may extend to the hymenal tissue.
2. Accidental falls onto sharp or blunt protruding objects can cause lacerations of the hymen, posterior fourchette, and even vagina. Perianal lacerations can occur in this way also.
3. Vaginal lacerations from water jet-type injuries. There are anecdotal reports of vaginal lacerations occurring, without injury to the hymen, in girls who were water skiing, playing on the water jet of a hot tub, and playing with a hose attached to the faucet in the bathtub. These cases had very believable histories from the child, and very believable denials by the child of any abuse. It is thought that the force of the water distending the not-very-distensible vagina in a prepubertal girl could cause internal injuries.
4. Iatrogenic injuries. There have been cases reported of an accidental hymenal laceration caused by a physician whose finger slipped while trying to do a rectal examination on a child, of hymenal tears caused by the inappropriate use of a speculum in a non-sedated child, and of anal fissures caused by an examiner forcibly abducting a child’s buttocks for an examination.

It is also fairly common for an examiner to break down a labial adhesion during an examination of the hymen, causing bleeding.

Classifying Physical Findings in Suspected Sexual Abuse

In addition to studies of newborn infants and children selected for non-abuse, studies on children with acute genital trauma have been helpful in documenting the types of injuries seen with sexual assault and, to a limited extent, have documented how some of these injuries heal.

Is there agreement among experts in the field as to what findings should be considered normal, and what findings are abnormal?

Yes, to a certain extent, but controversial areas still exist in the classification of some findings:

1. Size of hymenal opening.
2. Width of hymenal rim posteriorly.
3. Notches/clefts/concavities/indentations.
4. Anal dilatation.

The following appendix is a classification system based on research studies of both abused and non-abused children. It was revised after discussion among 18 experts in child sexual abuse medical evaluation, in January of 2004. The references for each finding are listed following the appendix. This is not a final version of the classification system, because work is ongoing to evaluate each of the research studies cited in order to evaluate whether the research is of sufficient quality and quantity to support the classification of each finding listed.

Appendix 1. Research-Based Classification System For Assessing Physical And Laboratory Findings In Suspected Child Sexual Abuse February 11, 2004

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Important Note: Recent studies have shown that 85% to 95% of children who have given clear histories of being sexually abused will have normal or non-specific medical findings on examination, either because the injuries they sustained have healed completely by the time they are examined, or because the acts of abuse did not cause any physical injury to the child.¹⁻³ Many children do not have a clear concept of what “penetration” means, and are most likely describing rubbing or pushing against their external genitalia or, for girls, penetration beyond the labia majora but not the hymen. Even penile penetration of the anus, or the hymen in girls who have started puberty, may not cause any injury, because of the ability of the tissues to stretch,⁴ or may cause minor injuries that heal completely.²

The references to Slide number following some of the findings refer to the NASPAG CD-ROM, “Sexual Abuse: Medical Evaluation for the Primary Care Physician”, edited by David Muram, MD, Leah Harrison R.N., P.N. P., and Joyce Adams, MD, published in 2002 by NASPAG. Available @ NASPAG.org.

I. Findings Documented in Newborns or Commonly Seen in Non-abused Children (Findings which need not raise concern for abuse, in the absence of a disclosure of abuse)

A. Normal variants (slides 21–50)**

1. Periurethral or vestibular bands.^{1,7,9}
2. Intravaginal ridges or columns.^{1,5-9} (Slide 48)
3. Hymenal bump or mound.^{1,5-9}
4. Hymenal tags or septal remnants.^{1,5-9} (Slide 47)
5. Linea vestibularis (midline avascular area).^{6,7,9,10}
6. Hymenal notch/cleft in the anterior (superior) half of the hymenal rim, on or above the 3 o'clock–9 o'clock line, patient supine.^{1,5,8,9}

7. External hymenal ridge.^{1,5,8,9}
8. Septate hymen.^{7,8}
9. Diastasis ani (smooth area).¹¹⁻¹³
10. Perianal skin tag.¹¹⁻¹³
11. Hyperpigmentation of the skin of labia minora or perianal tissues in Mexican-American and African-American children.^{7,11,12}
12. Dilation of the urethral opening with application of labial traction.^{6,7}
13. “Thickened hymen” (May be due to estrogen effect, folded edge of hymen, swelling from infection, or swelling from trauma).^{6,7,14,15} (Slide 34)
14. Shallow/superficial notch or cleft in inferior rim of hymen (below 3 o'clock–9 o'clock line).^{1,2,5,6,8,9,14-17}

B. Findings caused by other medical conditions

15. Erythema (redness) of the vestibule, penis, scrotum or peri-anal tissues. (May be due to irritants, infection or trauma).^{6-9,14-16,18}
16. Increased vascularity (“Dilatation of existing blood vessels”) of vestibule and hymen. (May be due to local irritants, or normal pattern in the non estrogenized state).^{6-9,14,16}
17. Labial adhesion. (May be due to irritation or rubbing).^{6-9,14-16,18} (Slides 54–57)
18. Vaginal discharge. (Many infectious and non-infectious causes, cultures must be taken to confirm if it is caused by sexually transmitted organisms or other infections).^{6,9,14} (Slide 59)
19. Friability of the posterior fourchette or commissure (May be due to irritation, infection, or may be caused by examiner’s traction on the labia majora).^{6,9,15}
20. Excoriations/bleeding/vascular lesions. These findings can be due to conditions such as lichen sclerosus, eczema or seborrhea, vaginal/perianal Group A Streptococcus, urethral prolapse, hemangiomas).^{2,17,19-24}
21. Anal fissures (Usually due to constipation, perianal irritation).^{17,21}
22. Venous congestion, or venous pooling (Usually due to positioning of child, also seen in constipation).^{11-14,18}
23. Flattened anal folds (May be due to relaxation of the external sphincter or to swelling of the perianal tissues due to infection or trauma).^{11,13,14,18}
24. Partial or complete anal dilatation to less than 2 cm, with or without stool present. (May be a normal reflex, or may have other causes, such as severe constipation or encopresis, sedation, anesthesia, neuromuscular conditions).^{11,13,14,18}

II. Indeterminate Findings: Insufficient or contradictory data from research studies: (Findings which, in the absence of a history of abuse, require further investigation, such as diagnostic studies or careful questioning of the child. Consider report to protective services)

A. Findings

25. Deep notches or clefts in the posterior/inferior rim of hymen. One case-control study found notches through more than 50% of the width of the posterior hymen only in girls who described digital or penile-vaginal penetration; however, this was seen in only 2/192 girls between the ages of 3 and 8 years alleging penetration. Distinguishing between superficial notches (through 50% or less of the rim) and deep notches (through more than 50% of the rim) can be extremely difficult.^{1,2}
26. Posterior rim of hymen which appears to be less than 1 mm wide, in the prone knee-chest position, or using water to “float” the edge of the hymen when the child is in the supine position. This finding was not seen in girls selected for non-abuse in four separate studies.⁷⁻⁹ However, a rim estimated to be less than 1–2 mm was found in 22% of girls selected for non-abuse in another study.¹⁶ In addition, most experts acknowledge that it is very difficult to accurately measure the posterior rim of hymen in many cases.
27. Apparent genital warts (May be skin tags or warts not of the genital type, may be Condyloma accuminata which was acquired from perinatal transmission or other non-sexual transmission).^{17,19,26,27} (Slides 89–90)
28. Vesicular lesions or ulcers in the genital or anal area (Infectious and non-infectious causes, including: Herpes, syphilis, Varicella or other viruses, Behcet’s Disease, Crohn’s disease, idiopathic causes).^{17,19,26,27}
29. Marked, immediate anal dilation to a diameter of 2 cm or more, in the absence of other predisposing factors such as chronic constipation, sedation, anesthesia, neuromuscular conditions.^{11,17} (No clear consensus among experts as to the significance of this finding. It is a very rare finding in both abused and non-abused children).

B. Lesions with etiology confirmed: Indeterminate specificity for sexual transmission

30. Genital or anal Condyloma accuminata first appearing in a child older than 3–5 years of age, in the absence of other indicators of abuse.^{26,27}

31. Herpes Type 1 or 2 in the genital or anal area in a child with no other indicators of sexual abuse.^{26,27}

III: Findings Diagnostic of Trauma and/or Sexual Contact (Findings which, in the absence of a clear, timely, plausible history of accidental injury or non-sexual transmission, should be reported to child protective services)

A. Moderate specificity for abuse

32. Acute lacerations or extensive bruising of labia, peri-hymenal tissues, penis, scrotum or perineum (May be from unwitnessed accidental trauma).^{14,15,21–24}
33. Scar of posterior fourchette (discrete, pale, off the midline). Scars are very difficult to assess unless acute injury at same location was documented.^{2,17}
34. Fresh laceration of the posterior fourchette, not involving the hymen. (Must be differentiated from dehisced labial adhesion or failure of midline fusion, or may be caused by accidental injury).^{2,15,17,20–24} (Slides 76, 86, 87)
35. Peri-anal scar: discrete, pale, off the midline (Rare, difficult to assess unless acute injury at the same location was previously documented; may be due to other medical conditions such as Crohn’s Disease, or previous medical procedures).^{2,17,18}

B. High specificity for abuse (Diagnostic of blunt force penetrating trauma)

36. Laceration (tear, partial or complete) of the hymen, acute.^{2,15,17,21,22,24} (Slides 61, 64–71, 74–79)
37. Ecchymosis (bruising) on the hymen.^{2,15,17,21,22,24}
38. Peri-anal lacerations extending deep to the external anal sphincter (not to be confused with partial failure of midline fusion).^{2,17,18,21,24}
39. Hymenal transection (healed). An area where the hymen has been torn through, to or nearly to the base, so there appears to be virtually no hymenal tissue remaining at that location, confirmed using additional examination techniques such as a swab, prone knee-chest position, Foley catheter, water to float the edge of the hymen. This finding has also been referred to as a “complete cleft” in sexually active adolescents and young adult women.^{2,14,17,24,28} (Slide 69)
40. Absence of hymenal tissue. Wider areas in the posterior (inferior) half of the hymenal rim with

an absence of hymenal tissue, extending to the base of the hymen, which is confirmed using additional positions/methods.^{14,17} (Slides 66, 71, 75)

C. Presence of infection confirms mucosal contact with infected genital secretions, contact most likely to have been sexual in nature

41. Positive confirmed culture for gonorrhea, from genital area, anus, throat, in a child outside the neonatal period.^{26,27}
42. Confirmed diagnosis of syphilis, if perinatal transmission is ruled out.^{26,27}
43. *Trichomonas vaginalis* infection in a child older than 1 year of age, with organisms identified (by an experienced technician or clinician) in vaginal secretions by wet mount examination or by culture.^{26,27}
44. Positive culture from genital or anal tissues for Chlamydia, if child is older than 3 years at time of diagnosis, and specimen was tested using cell culture or comparable method approved by the Centers for Disease Control.^{26,27}
45. Positive serology for HIV, if neonatal transmission and transmission from blood products has been ruled out.^{26,27}

D. Diagnostic of sexual contact

46. Pregnancy.²⁷
47. Sperm identified in specimens taken directly from a child's body.²⁷ (Slide 92)

Acknowledgments: Terminology used is taken from: American Professional Society on the Abuse of Children. Practice Guidelines: Descriptive Terminology in Child Sexual Abuse Medical Evaluations. Published by the American Professional Society on the Abuse of Children, 1995.

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