



The Herman & Walter Samuelson
**CHILDREN'S
HOSPITAL AT SINAI**
A LIFEBRIDGE HEALTH CENTER

Child Maltreatment

Bernard Cohen, MD

**Professor of Pediatrics and
Dermatology**

Johns Hopkins Children's Center

(Most Up to date talk)



In the beginning...

- **Why Child Maltreatment? It still happens**
- **Maybe we need to be more involved**
- **Funding for anogenital warts and child abuse project from the SPD founders in 1984!!!**





"After I submitted baby Rose to evidence control, I go home. I can't even go in my house. I can't face my children. I can't face my grandson. I'm crying. I'm beating the stuffing out of my steering wheel."

— Jeffrey Mellott, Baltimore police detective, to a judge in court



AMY DAVIS/BALTIMORE SUN

Retired Baltimore police Detective Jeffrey Mellott with one of the horses he cares for on a farm near his Baltimore County home.

SPEAKING UP FOR BABY ROSE

How a Baltimore detective found his purpose investigating child abuse

BY TIM PRUDENTE
The Baltimore Sun

Jeffrey Mellott found his purpose in life

police, there's neither the slap-the-cuffs action of narcotics nor the prestige of homicide. The work means coloring

their days, that they see at night when they shut their eyes, that make them believe in real evil. In this darkness, Mellott

May 2019

PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Local Macroeconomic Trends and Hospital Admissions for Child Abuse, 2000–2009

Joanne N. Wood, Sheyla P. Medina, Chris Feudtner, Xianqun Luan, Russell Localio, Evan S. Fieldston and David M. Rubin

Pediatrics 2012;130:e358; originally published online July 16, 2012;

DOI: 10.1542/peds.2011-3755

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/130/2/e358.full.html>

- **Peds admissions down 0.8%**
- **Physical abuse, TBI up 3%, 5%**
- **Correlates with mortgage delinquency rate**

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Policy Statement—Child Fatality Review

abstract

FREE

Injury remains the leading cause of pediatric mortality and requires public health approaches to reduce preventable deaths. Child fatality review teams, first established to review suspicious child deaths involving abuse or neglect, have expanded toward a public health model of prevention of child fatality through systematic review of child deaths from birth through adolescence. Approximately half of all states report reviewing child deaths from all causes, and the process of fatality review has identified effective local and state prevention strategies for reducing child deaths. This expanded approach can be a powerful tool in understanding the epidemiology and preventability of child death locally, regionally, and nationally; improving accuracy of vital statistics data; and identifying public health and legislative strategies for reducing preventable child fatalities. The American Academy of Pediatrics supports the development of federal and state legislation to enhance the child fatality review process and recommends that pediatricians become involved in local and state child death reviews. *Pediatrics* 2010; 126:592–596

THE COMMITTEE ON CHILD ABUSE AND NEGLECT, THE COMMITTEE ON INJURY, VIOLENCE, AND POISON PREVENTION, and THE COUNCIL ON COMMUNITY PEDIATRICS

KEY WORDS

child fatality review teams, child deaths

ABBREVIATIONS

AAP—American Academy of Pediatrics

CFRT—child fatality review team

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PEDIATRICS Volume 136, number 1, July 2015 and update in 2019

No pediatric dermatology input, none of us were CAP experts

Critical Elements in the Medical Evaluation of Suspected Child Physical Abuse

Kristine A. Campbell, MD, MSc, Lenora M. Olson, PhD, Heather T. Keenan, MDCM, PhD

BACKGROUND: Previous research has described variability in medical evaluation of suspected abuse. The objective of this study was to identify, through expert consensus, required and highly recommended elements of a child abuse pediatrics (CAP) evaluation for 3 common presentations of suspected physical abuse in children aged 0 to 60 months.

METHODS: Twenty-eight CAPs recruited from 2 national organizations formed the expert panel for this modified Delphi Process. An initial survey was developed for each presentation based on demographics, history of present illness, past medical, family and social history, laboratory, radiology, and consultation elements present in at least 10% of CAP consultations collected for

abs

Protecting Children From Sexual Abuse by Health Care Professionals and in the Health Care Setting ✓

Antoinette Laskey, MD, MPH, MBA, FAAP ; Suzanne Haney, MD, MS, FAAP; Sarah Northrop, MD, FAAP;

THE COUNCIL ON CHILD ABUSE AND NEGLECT

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Pediatrics e2022058879.

<https://doi.org/10.1542/peds.2022-058879> **Article history** 

Child Abuse Cases Drop 51 Percent. The Authorities Are Very Worried.

The coronavirus has shattered the system that protects children, leaving some confined in troubled homes or lingering in foster care.



Give this article



51



CORONAVIRUS

Reports of child abuse have fallen in Maryland since coronavirus shutdown, but experts say harm may be hidden

By Yvonne Wenger and Alison Knezevich
Baltimore Sun • Apr 25, 2020 at 5:00 am



Listen to this article



Reports of child abuse and neglect have fallen sharply in Maryland since the coronavirus pandemic shut down most of the state, shuttering kids in their homes and away from the watchful eyes of teachers, health care workers and extended family.

State Department of Human Services data show a dramatic decline in reports of children suffering possible harm, but that's at the same time systems charged with protecting them have been hampered in their outreach by the pandemic.

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Arrest warrant issued for man shot by wife at DC hotel, accused of sexual abuse of children

James Weems Jr, who is still hospitalized, faces multiple charges stemming from allegations he abused at least three children at a Baltimore day care his wife owns.



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Essex Man David Hass Convicted Of Child Abuse In Death of 2-Year-Old Boy

**CBS NEWS
BALTIMORE**

JULY 28, 2021 / 6:14 PM / CBS BALTIMORE



Essex Man David Hass Convicted Of Child Abuse In Death of 2-Year-Old Boy





WBAL Radio



It's time for people to know': Church sexual abuse victims speak out | WBAL Baltimore News

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3,07

Church child sex abuse allegations from more than 600 victims detailed in new report - ABC News

[Visit](#)



3:33



Elon Musk's Father Accused of Child Sexual Abuse

Errol Musk has been accused of sexually abusing five of his children and stepchildren since 1993, a Times investigation found. Family members had appealed to Elon Musk for help.

By John Eligon, Kirsten Grind, Karen Hanley, June Kim and Stephanie Swart

September 23, 2025





Special interest in... mimickers of child abuse(time permitting)

THE



SUN

Monday, January 19, 2004

Baltimore, Maryland

Child's life is ended in moment of anger

Abuse: A 16-month-old Baltimore County girl's murder highlights a nationwide struggle to reduce cases of shaken baby syndrome.

By STEPHANIE HANES
SUN STAFF

Michele Franz rocked back and forth on the hard courtroom bench, clutching the picture of her dead baby.

Gary Wayne Buehler, the tall

22-year-old she had once fallen for, stood rigid and pale in his olive suit. Fingers clenching and unclenching, he waited with the rest of the courtroom Thursday to learn whether the judge believed his story or thought he was a murderer.

It had been a year and a half since the Johns Hopkins emergency pediatric doctors rushed to save Ciara Nicole Franz and her battered 16-month-old brain. A year and a half since the doctors told Michele it was over, and let her climb into the hospital bed with her unconscious toddler to say goodbye.

For the past 18 months, Franz and



A.F. CHUNG : SUN STAFF

Michele Franz's daughter, Ciara, was a victim of shaken baby syndrome. Studies show between 600 and 1,400 U.S. children die of such abuse each year.

her family in southwestern Baltimore County have grieved, struggling to understand how anyone could shake a child to death.

There has been increased publicity about "shaken baby syndrome" over the past decade, with public service campaigns telling parents to "never, never, never shake your baby." But to the frustration of [See Baby, 5A]

Democr in 'vol Iowa

Polls say Kerry, Edwards now in a statistical tie with Dean and Gephardt



**Never, never, never, never, never
shake a baby!**



Cutaneous Markers of Child Maltreatment Syndrome (Non-accidental injury)

- Quick history and epidemiology
- Markers of physical abuse
- Markers of sexual abuse
- Anogenital warts in children: To worry or not worry?
- Primary lesions masquerading as markers (time permitting)



Child Abuse/Neglect

- **Recognition (Kempe The Battered Child Syndrome JAMA, 1962)**
- **Legislation (Fed Child Abuse Prevention Act, 1974)**
- **Reporting mandatory**
- **Role/Obligation of Health Care Provider**
- **Reporter protected and investigator now protected with 2018 update**
- **Role of Dermatologist**



New law protects pediatricians who assist in child abuse investigations

The Victims of Child Abuse Reauthorization Act, which was signed into law early this year, slipped under the radar of national news media. The legislation includes an AAP-championed policy, however, that provides important legal protections to pediatricians who assist in investigations of suspected child abuse.

As mandatory reporters of child abuse, pediatricians can report suspected abuse and assist in investigations. While pediatricians were legally protected from personal liability when reporting abuse, the same protections did not apply when they provided medical evaluations or consultations as part of a child abuse investigation.

The law includes a technical fix that will ensure pediatricians, educators, law enforcement officers and other mandatory reporters can take the actions necessary in supporting those investigations, so they can keep children safe without facing concerns over personal liability.

A 2012 report from the Department of Health and Human Services outlined the issue facing man-



Dr. Kyle Yasuda
@AAPPres

Following

Thank you Senators [@SenFeinstein](#) and [@ChuckGrassley](#) for your leadership on the Victims of Child Abuse Reauthorization Act. Their work ensures that pediatricians who work to protect children from abuse can do everything in their power to keep children safe. [#PutKids1st](#)

Sen Dianne Feinstein @SenFeinstein

Our amendment making it easier to report suspected child abuse in good faith without fear of liability has been signed into law. It's good to see more training for pediatricians, educators and others who identify potential abuse can do so without fear of coming...

cy ensured it made its way into the final law. In fact, the AAP raised the issue with congressional staff who were able to make sure it had a vehicle for advancement. The AAP's work resulted in a bipartisan effort led by Sens. Dianne Feinstein (D-Calif.) and Chuck Grassley (R-Iowa) to ensure that this policy could advance as part of the Victims of Child Abuse Reauthorization Act.

The Academy also convened a coalition of partner organizations, including school and law enforcement officials, that showed their support for the bill.

As the law is implemented, the AAP will continue to monitor judicial interpretation of the clarification to ensure it is being applied in a way consistent with

congressional intent, so that vulnerable children and the pediatricians who treat them are protected.

Reporter protected and investigator now protected 2019

clarification in the law. The AAP advocated for the report as part of the reauthorization of the Child Abuse Prevention and Treatment Act two years prior.

While the clarification is only one part of a much



Child Maltreatment 2017



Published January 28, 2019

<https://www.acf.hhs.gov/cb/research-data-technology/statistics-research/child-maltreatment>



U.S. Department
of Health & Human
Services
Administration for Children and Families
Administration on Children, Youth and
Families





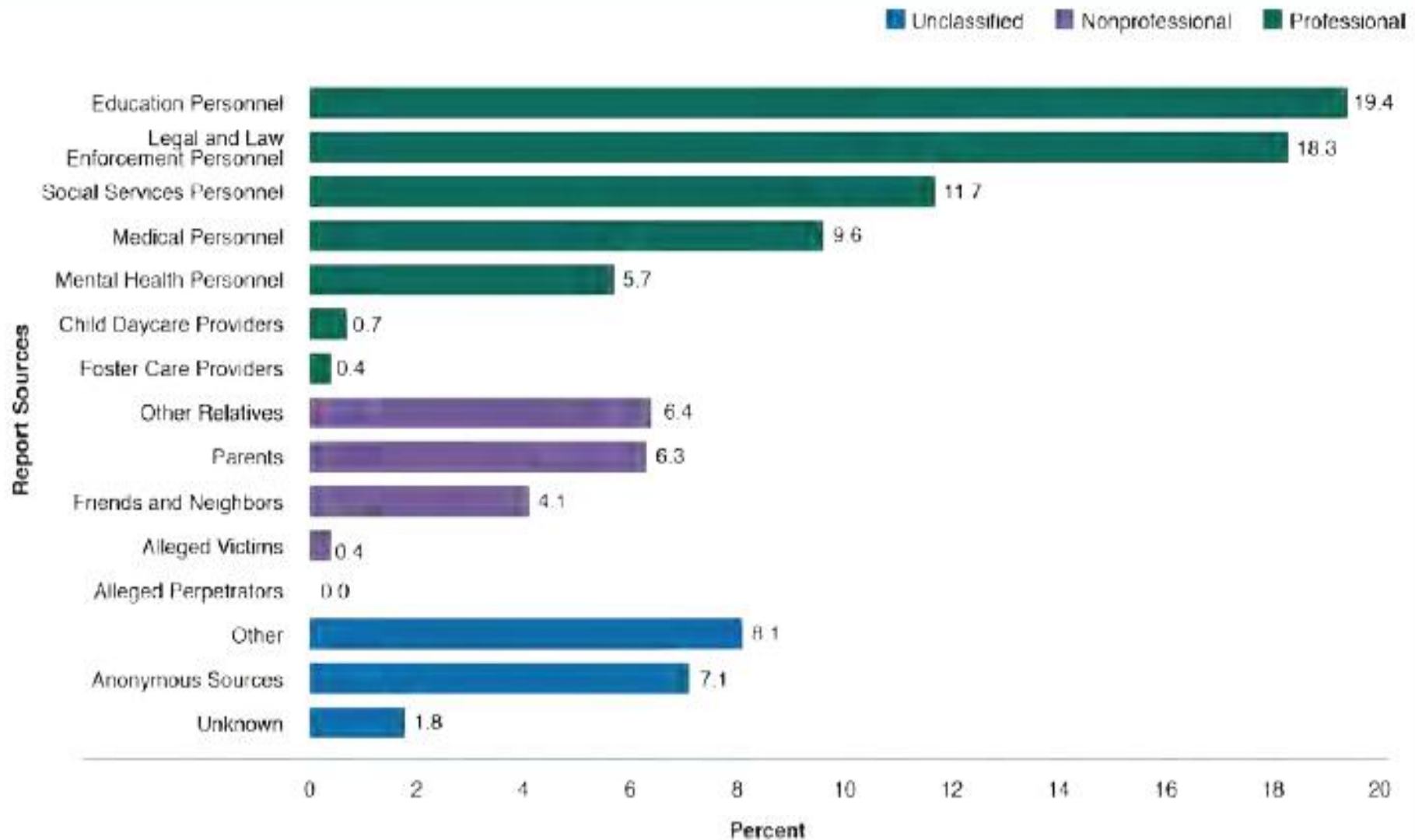
Child Abuse/Neglect-STATS

- **> 3,700,000 referrals to CPS/yr in US, 9.1/1,000**
- **681,000 victims of maltreatment: 79% neglect, 18% physical abuse, 9% sexual abuse, 10% other**
- **1,740 deaths (2008, 2012)
(50% < 1 yo, 80% < 4)**
- **50% of abused children returned to same home abused again, parent perpetrators 80.8%**

(DHHS, 2012, 2017/2019)

Exhibit 2-D Report Sources, 2017

Professionals submitted the majority of screened-in referrals (reports) that received an investigation or alternative response.



Data are from the Child File. Based on data from 49 states. States were excluded from this analysis if more than 25.0 percent had an unknown report source. Numbers total to more than 100.0 percent due to rounding. Supporting data not shown.

Figure 3–2 Age by Percentage of Victims, 2007

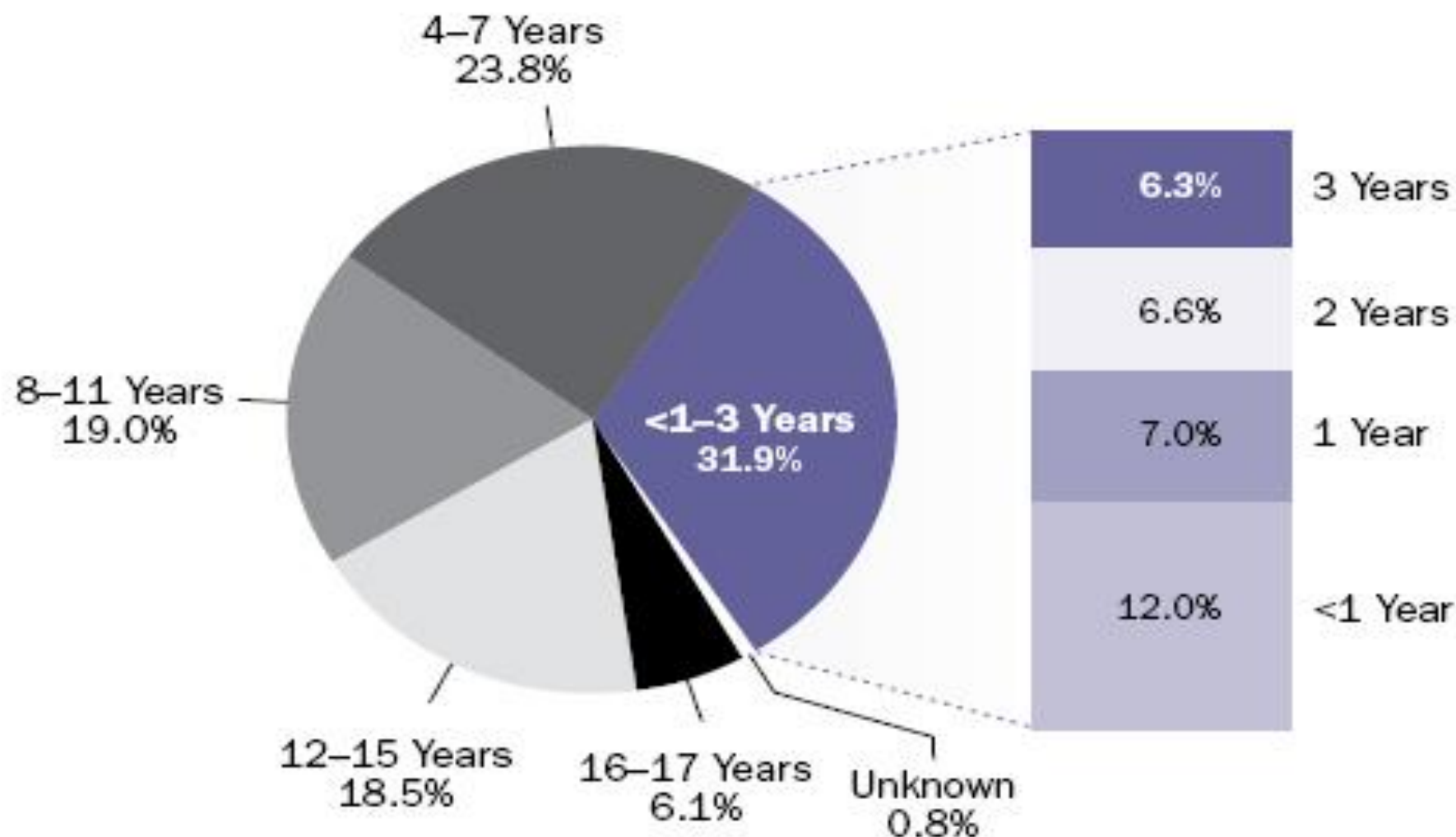


Figure 3-3 Victimization Rates by Age and Sex, 2007

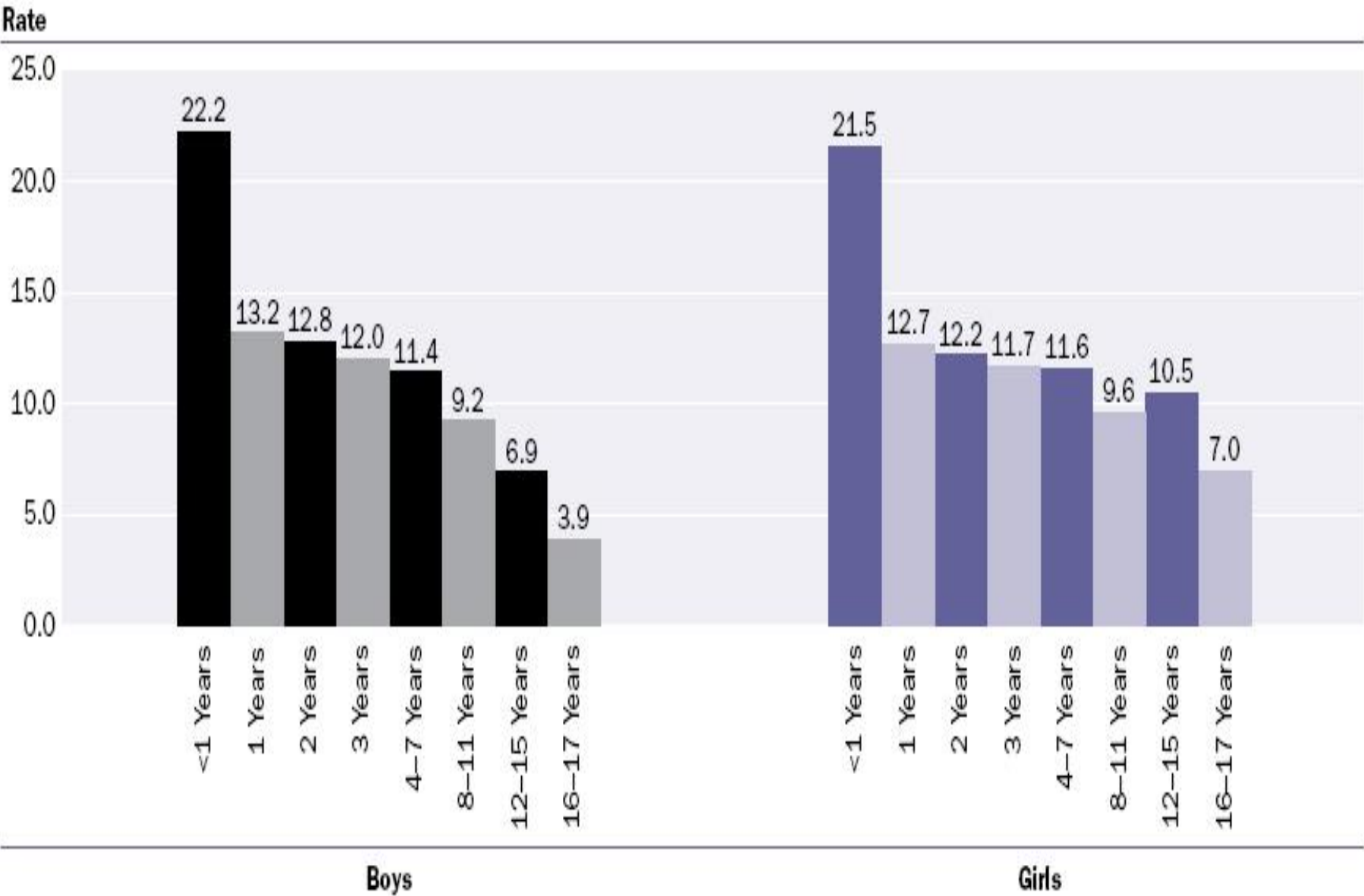
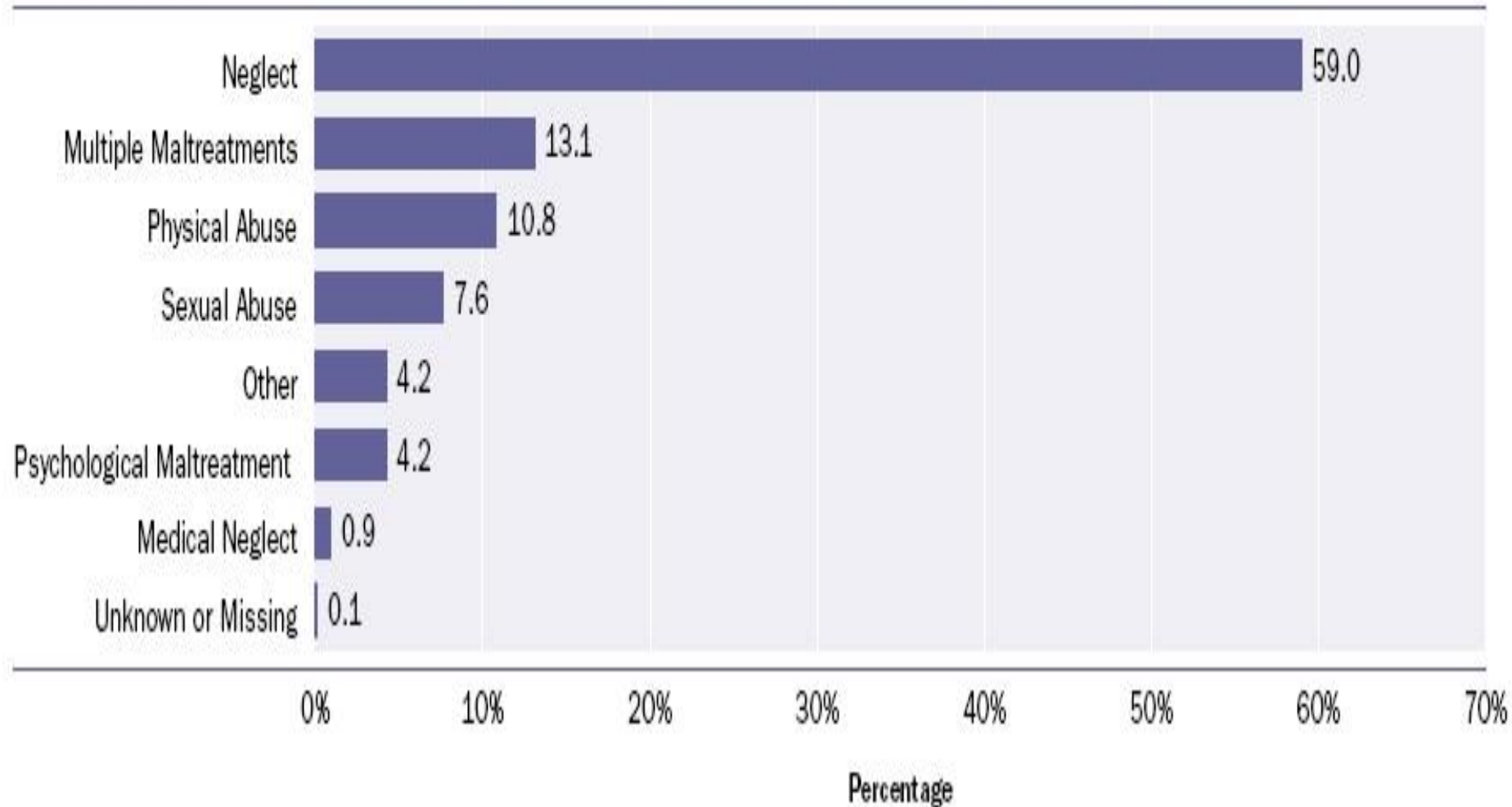


Figure 3-4 Victims by Maltreatment Type, 2007

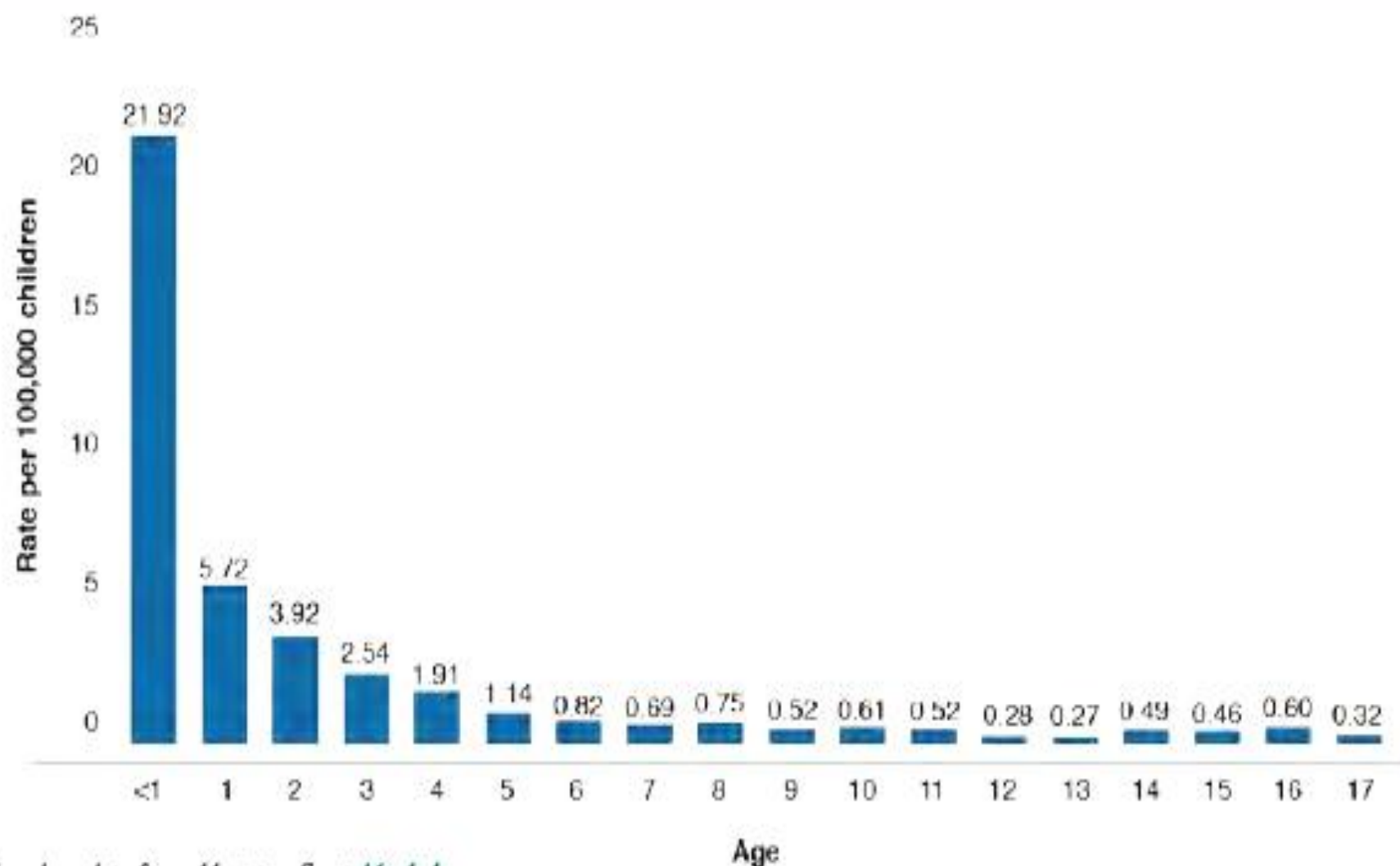
Maltreatment Type



Based on data from 3-8

Exhibit 4-B Child Fatality by Age, 2017

Children <1 year old died from abuse and neglect at nearly four times the rate of children who were 1 year old.



Based on data from 44 states. See [table 4-4](#).

Exhibit 4–E Maltreatment Types of Child Fatalities, 2017

Maltreatment Type	Child Fatalities	Maltreatment Types	Maltreatment Types Percent
Medical Neglect	-	101	7.4
Neglect	-	1,032	75.4
Other	-	223	16.3
Physical Abuse	-	569	41.6
Psychological Abuse	-	30	2.2
Sexual Abuse	-	8	0.6
Unknown	-	-	-
National	1,368	1,963	143.5

Based on data from 44 states. Data are from the Child File. A child may have suffered from more than one type of maltreatment and therefore, the total number of reported maltreatments exceeds the number of fatalities, and the total percentage of reported maltreatments exceeds 100.0 percent. The percentages are calculated against the number of child fatalities in the reporting states.



In 2017/2019, some children had higher rates of victimization:

- African-American (14.3 per 1,000 children)
- American Indian or Alaska Native (11.4 per 1,000 children)
- Pacific Islanders 8.5%, Hispanics 8.6, Non-Hispanic Whites 7.9, Asians 1.7
- Overall, rates of victimization were slightly higher for girls (10.8 per 1,000 children) than boys (9.7 per 1,000 children)

- U.S. Department of Health and Human Services, Administration on Children, Youth and Families. *Child Maltreatment 2008* [Washington, DC: U.S. Government Printing Office, 2010] available at: <http://www.acf.hhs.gov>.
- 2. Finkelhor D, Turner H, Ormond R, Hamby SL. Violence, abuse, and crime exposure in a national sample of children and youth. *Pediatrics* 2009; 124:1411-1423.
- HHS, 2013



Physical Abuse-Clues

- **Hx not c/w injury**
- **Vague Hx**
- **Changing Hx**
- **Contradictory Hx**
- **Not credible**







Physical Findings

- **Unusual locations (for accidental injury):
back, buttocks, upper arms, ears, feet**
- **Imprint of object**
- **Old scars, bruises**
- **Bruise assessment: forensic use of Wood light**

Vogley EV, Pierce MC, Bertocci GA.

Arch Pediatr Adolesc Med 2002;156:265



Physical Abuse-Other Red Flags

- **Delay in presentation**
- **Inappropriate parental concern**
- **Parental-child interaction**
- **Repeated ER visits**

Accidents

Fractures

Ingestions



Dating bruises? (McGuire S. Arch Dis Child 2005;90:187-9)





Accidental or non-accidental injury?

















Accidental injury?

Debo HF. Red edematous toes in 2 infants. *J Pediatr Health Care* 1999;13(6pt1):303,311-12)

Milkovich SM. Accidental child strangulation by human hair. *Int J Pediatr Otorhinolaryngol* 2005;69:1621-8.



Impetigo? in a healthy toddler...





Physical Findings-Burns

- **Try to exclude accidental injuries**
- **Dip injuries**
- **Cigarette burns**
- **Imprint pattern, location**



**BURN RATE****NOTICE**

The Engineering and Sciences Division of the United States Consumer Product Safety Commission has compiled the following time-temperature burn chart (based on the 1946 Harvard studies of Moritz and Henriques under Department of Defense contract). The chart shows the exposure times, under circumstances of full immersion, that will result in superficial, and partial or full-thickness, scald burns at various water temperatures.

BURN TABLE

Water Temperature ° F	Time for 1st Degree Burn	Time for Permanent Burns 2nd and 3rd Degree
110	(normal shower temp)	
116	(pain threshold)	
116	35 minutes	45 minutes
122	1 minute	5 minutes
131	5 seconds	25 seconds
140	2 seconds	5 seconds
149	1 second	2 seconds
154	instantaneous	1 second

(U.S. Government Memorandum, C.P.S.C., Peter L. Armstrong, Sept. 15, 1978)

Tap water scald injuries, particularly to young children (and the elderly and infirm), occur nationally with sufficient frequency and with such catastrophic results to be a foreseeable hazard of great concern.

Surface Temperature in the Causation of Cutaneous Burns, 23 American Journal of Pathology 147 (1046); Henriques, "Study of Thermal Injury V: The Predictability and the Significance of Thermally Induced Rate Processes Leading to Irreversible Epidermal Injury," 1946 Archives of Pathology 489.



Time to Produce Full

Thickness Burn

(AAP Guidelines)

<u>Water Temp</u>	<u>Exposure Time</u>
120 F	10 minutes
130 F	30 seconds
140 F	5 seconds
150 F	2 seconds
158 F	1 second







Chemical burn?
Hot water burn?



Bite Marks

- **Size (intercanine distance
< 3 cm by child)**
- **Dental configuration**
- **Mash v tear/laceration**
- **Photograph**
- **Saliva sample for DNA**
- **Full examination**

FOLEY

COUNTY

1

2

3

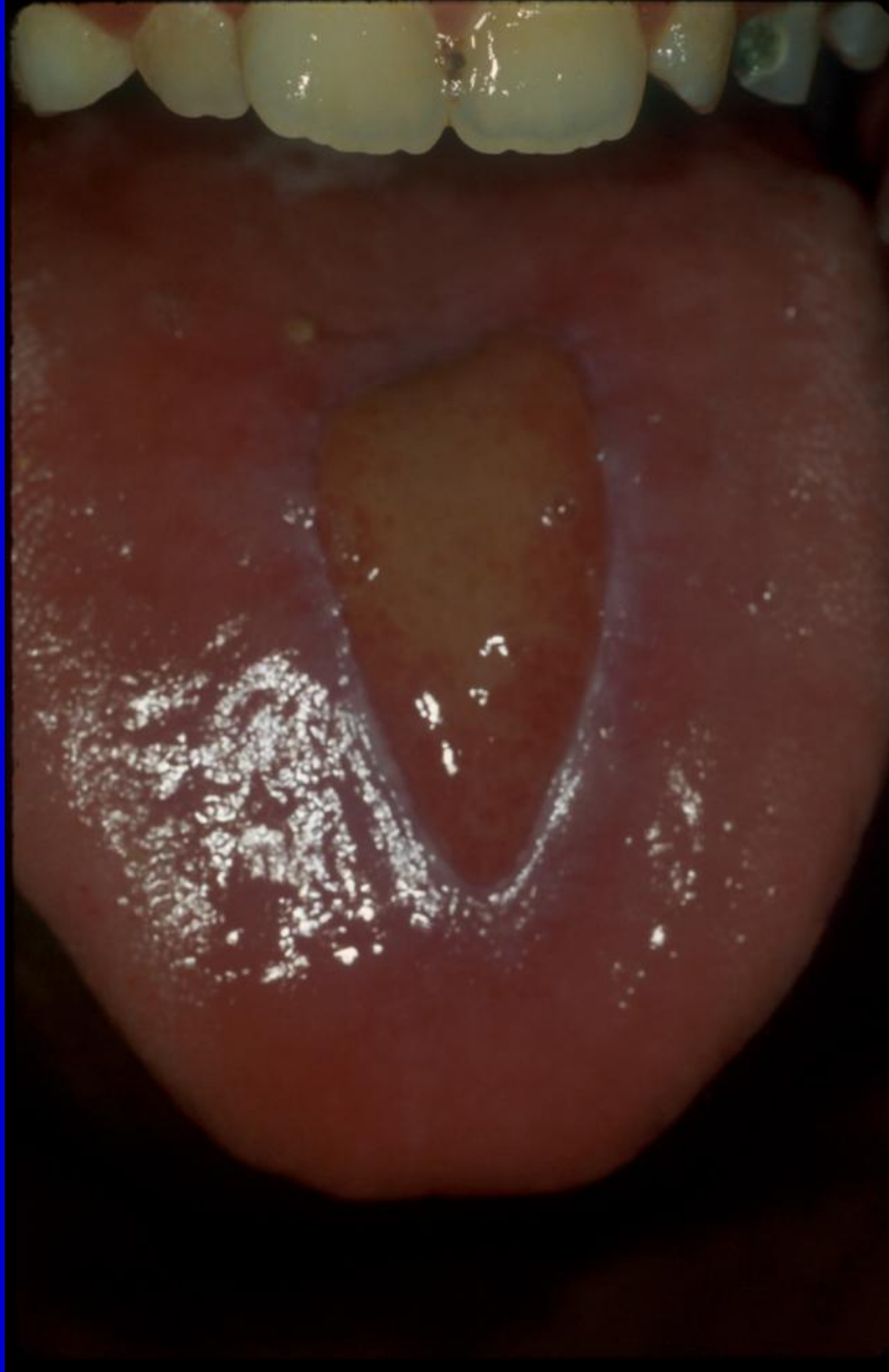
4

5



Oral Injuries

- **Bruises (unexplained palatal petechiae)**
- **Lacerations**
- **Tears of the frenulum**
- **Burns deliberate v accidental (eg. microwave)**
- **Dental fractures**
- **Dental caries in neglect**





Historical Tips

- **Index of suspicion**
- **Explore family dynamics**

Crises

Discipline

Behavior

- **Supportive, non-judgemental**



Parent Risk Factors

- **H/O abuse**
- **Limited coping skills**
- **Alcoholism, addiction, psychosis**
- **Poor social support**
- **Poverty, unemployment**
- **Adolescent parenthood**



Child Risk Factors

- **Age < 3 years**
- **Prematurity**
- **Congenital anomalies**
- **Chronic illness**
- **Foster children**



Skeletal Injuries

- **Sometimes incidental finding**
- **Multiple, symmetric, varying ages**
- **Children < 2 yrs-skeletal survey**
- **Toddlers-careful exam**





Neglect

- **Poor parenting-accidents, ingestions**
- **Psychosocial deprivation**

Failure to thrive

Developmental delay

- **Health maintenance neglected**

Immunizations

Health visits

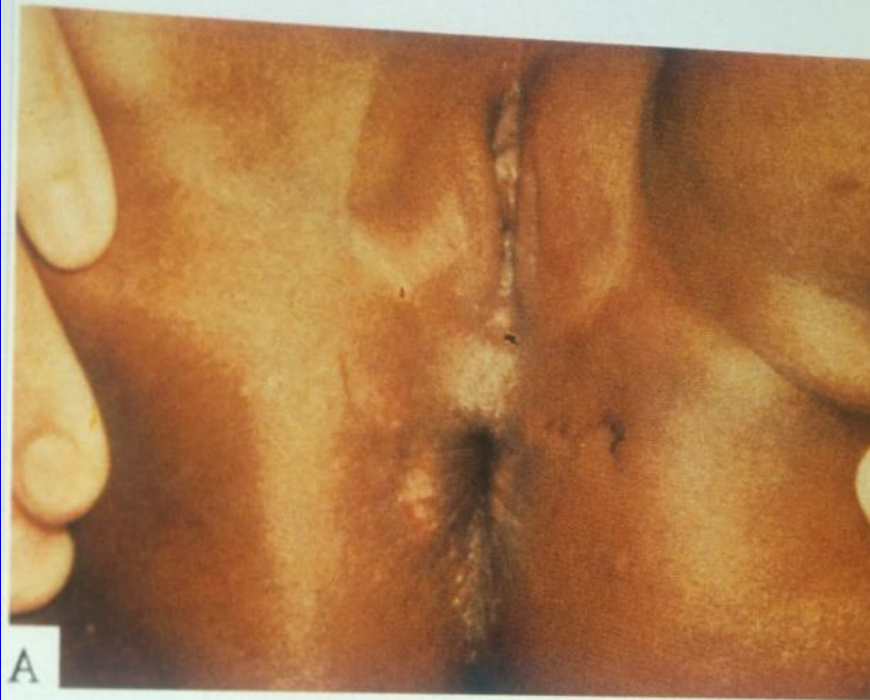


Neglect-Evaluation

- **Careful physical examination, ROS**
- **R/O organic disease**
- **Basic laboratory evaluation**



Sexual Abuse...





Sexual Abuse

- **Over 500,000 cases/yr**
- **20-30% of girls < 18 yo**
- **5-15% of boys <18 yo**
- **> 1/3 parents, relatives**
- **> 1/2 abuser known**



Normal Genital Anatomy...

- **Appearance of the hymen at birth and 1 year of age: A longitudinal study (Berenson, Pediatrics, 1993)**
- **Perianal findings in infants 18 months of age or younger (Berewon, Pediatrics, 1993)**



...Findings in Sexual Abuse...

- **Perianal injuries resulting from sexual abuse: A longitudinal study (McCann, Pediatrics, 1993)**
- **Genital injuries from sexual abuse: A longitudinal study (McCann, 1992)**



...however

- **Abused children can have normal anatomy**
- **Non-abused children can have abnormal anatomy**

Emans Pediatrics 1987

Berkoff MC, Zolator AJ, Thackery JDm Shapiro RA, Runyan DK. JAMA 2008;17:2779-92





Date: January 16, 2012 9:23:47 PM EST

To: bcohenajhmi.com

Subject: Warts in genital region

Sorry to disturb !

Could this be caused by anything but child abuse. Mother claims she & she alone around child





Anogenital Warts in Children

- Before 1980 only 2 reports
- Post 1980...explosion of reports and most from 1980-1990 associated with child abuse
- Of 409 abused children-13% with STD' s

(DeJong)

- 11 children with genital warts

(Duke Child Protection Team)

9/11 other sx' s of abuse

6/11 other STD' s



Transmission in Children

- **Intrauterine-hematogenous, ascending
(Tang, Am J Ob Gyn, 1977)**
- **Perinatal-laryngeal, genital
(Gissman, 1983)**
- **Post delivery-speculation**



Anogenital Warts-Child Abuse

- **Estimated incidence of abuse 40-80%**
- **AAD launched Task Force on Pediatric Dermatology 1989**

“...at least 50% of the cases can be documentd by knowledgeable investigators meaning that the true incidence is probably higher.”



Special Problems with Children

- **Anogenital area underexamined**
- **Lesions underreported**
underrecognized
underdiagnosed
- **Long latency period (Feldman NYS J Med)**



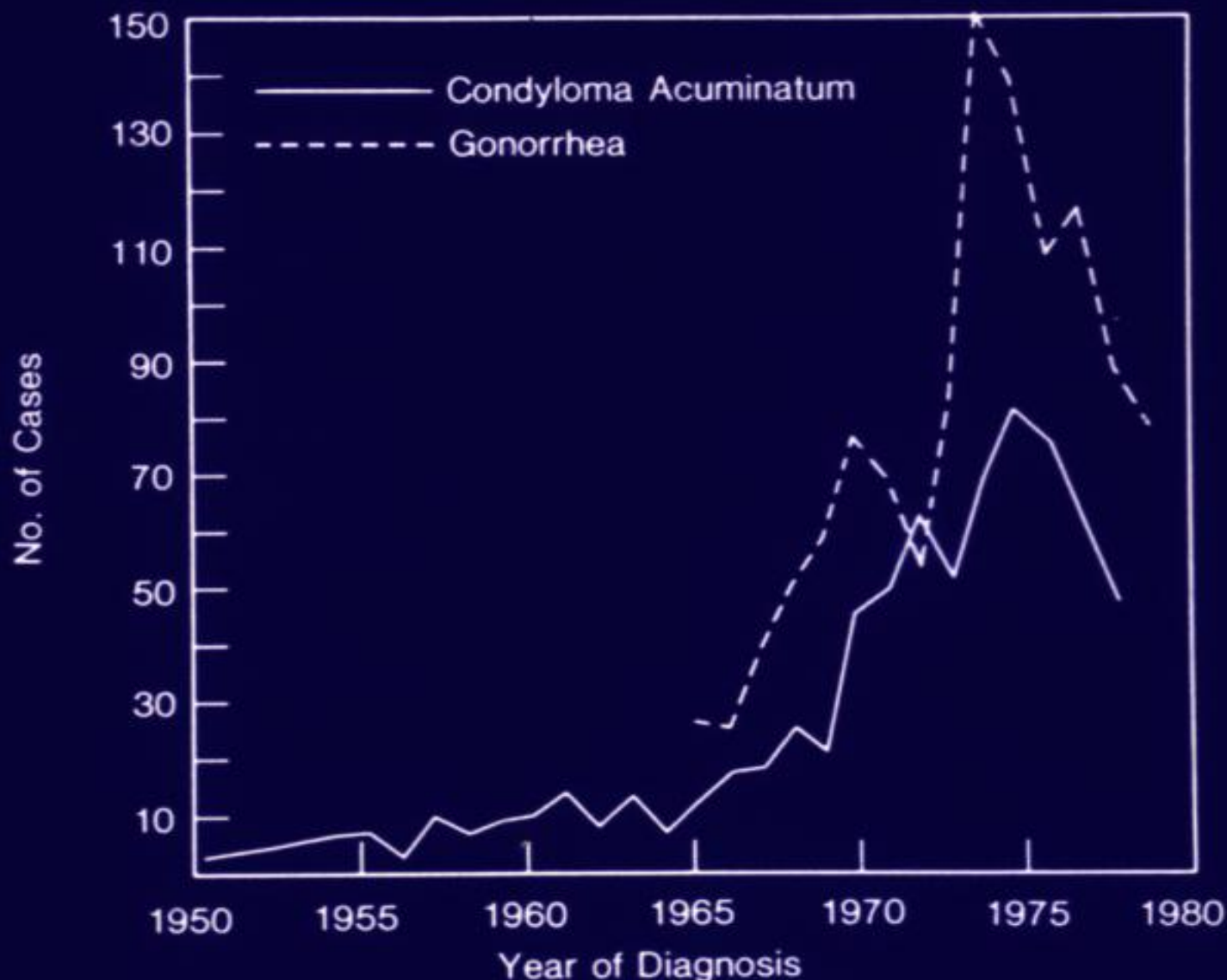


Fig 2.—Annual number of cases of diagnosed condyloma acuminatum in Rochester, Minn, 1950 through 1978, and annual number of reported cases of gonorrhea in Olmsted County (including Rochester), Minnesota, 1964 through 1979.

Disease	HPV type
Common warts	2, 7
Plantar warts	1, 2, 4, 63
Flat warts	3, 10
Anogenital warts	6, 11, 42, 44 and others ^[30]
Genital cancers	• Highest risk^[30]: 16, 18, 31, 45 • Other high-risk^{[30][31]}: 33, 35, 39, 51, 52, 56, 58, 59 • Probably high-risk^[31]: 26, 53, 66, 68, 73, 82
Epidermodysplasia verruciformis	more than 15 types
Focal epithelial hyperplasia (oral)	13, 32
Oral papillomas	6, 7, 11, 16, 32
Oropharyngeal cancer	16
Laryngeal papillomatosis	6, 11

Back to Pittsburgh...

- **Joined faculty July, 1984**
- **Within 2-3 months at least 4 babies with anogenital warts**
- **Referred from pediatricians and dermatologists**
- **No patients from DSS**
- **No children at high risk for sexual abuse**
- **What to do...**



Anogenital warts in children. Clinical and virologic evaluation for sexual abuse

Cohen BA¹, Honig P, Androphy E. Arch Dermatol. 1990 Dec;126(12):1575-80.

- **IRB approval CHP, CHOP**
- **Clinical dx**
- **Full skin and medical exam**
- **Review of medical records**
- **Screen for STD' s (syphilis, gc, chlamydia)**
- **HPV typing (Southern Blot Hybrid)**
- **Evaluation by study social worker**



Population

- **Total**

	73
CHP	64
CHOP	9
- **Sex**

Boys	40%
Girls	60%
- **Race**

Black	38%
White	60%
Other	2%



Age of Subjects

- 1/3 less than 12 months
- 1/2 less than 2 years
- 3/4 less than 3 years





Site of Involvement

- **Boys**

Perianal	57%
-----------------	------------

Genital	17%
----------------	------------

Both	26%
-------------	------------

- **Girls**

Perianal	37%
-----------------	------------

Genital	23%
----------------	------------

Both	40%
-------------	------------



Other STD's

- GC 1 (Sexually active)
- Syphilis 0
- Chlamydia 0



Sexual Abuse Evaluation

- **SCAN** **Total** **8**
 CHP **6**
 CHOP **2**
- **Physical Abuse** **2**



Wart Typing

- **Total** **43**
 - Typed** **34**
 - Non-Typed** **9**
- **HPV 6,11** **27/34**
- **HPV 16,18** **2/34**
- **HPV 1,2** **7/34**



Non-genital Warts in Kids

- **Total** **13 patients (18%)**
 - Upper extremities** **7**
 - Lower extremities** **7**
 - Head, neck** **2**
 - Ear** **1**
 - Axilla** **1**
- **HPV typing**
 - Few HPV 2**
 - 1 HPV 6**



Contacts with Warts

• Total	35		
Extremities	25		
Anogenital	12		
Abdomen	1		
Face	1		
• HPV typing	11/19		
Vaginal	HPV 6,11	2	
Extremities	HPV 2	5	
	HPV 4	1	
	HPV 6	5	



Conclusions

- **Presence of anogenital warts is not a reliable predictor of abuse**
- **HPV types not necessarily site specific**
- **Sources include**

Sexual abuse

Non-sexual contact

prenatal

perinatal

postnatal





FAST FORWARD 2019



More Data

- Obalek, JAAD 1990;23:205
- Jablonska, Ped Dermatol 1993;10:101
- Sinal, Semin Pediatr Infect Dis 2005;16:306
- Myhre, Acta Paediatr 2003;92:144
- Rombaldi RL, Serafini EP, Mandelli J, Zimmermann E, Losquiavo KP. Virol J. 2009 Jun 21;6:83.
- APMIS. 2010 Jun;118(6-7):494-509.

***Little evidence of sexual abuse in children <3**

***HPV 2 from hands, genitals**

***Clinical warts not type specific**

***Incidence of HPV in non-abused=abused=
1-1.5%**

***Perinatal exposure**



Pediatric anogenital warts: a 7-year review of children referred to a tertiary-care hospital in Montreal, Canada.

Marcoux D, Nadeau K, McCuaig C, Powell J, Oligny LL

Pediatr Dermatol. 2006 May-Jun;23(3):199-207

The modes of transmission of anogenital warts in children cannot be identified either by the clinical appearance of the lesions or by human papillomavirus typing. We conclude that the best way to identify possible sexual abuse is still by history taking, careful assessment of the socio-clinical context, and physical examination. (72 pts <12)



Baltimore Babies

- **Over 25 additional patients at CHP**
- **Over 75 additional patients at JHH**
- **Findings similar**
- **Current relationship with Md Chapter AAP Child Abuse Committee, the child abuse center at Mercy Hospital (Balto City), and Crimes Against Children unit (Balto County)**



Anogenital warts in pediatric population

Costa-Silva M¹, Fernandes I², Rodrigues AG², Lisboa C^{1,2}. An Bras Dermatol. 2017 Sep-Oct;92(5):675-681. doi: 10.1590/abd1806-4841.201756411.

- **Review of literature in Portuguese and English from 2000-2016**
- **Risk of CSA increases with age**
- **Risk is lowest in children under 4 yo**
- **Risk of CSA if another STI identified**
- **Multidisciplinary approach to evaluation recommended**
- **Similar findings in review** Curr Opin Infect Dis. 2016 Feb;29(1):41-4. Sexually transmitted infections in children as a marker of child sexual abuse and direction of future research. Rogstad KE¹, Wilkinson D, Robinson A.



AGW in children: Pediatrics in Review, 3/2011

- **Average age at presentation 3.75-4 yrs
(not us!!!)**
- **AGW in kids under 4 not generally CSA**
- **Kids over 4 with greater risk**
- **Tx not necessarily effective**
- **Recurrence not indicative of reabuse**



Vertical Transmission Studies

- Genotype concordance between maternal genital HPV infections and HPV strain carried by infants during first 2 months 13%-22.5%
- Other studies vary from 1-80%
- HPV 16 most common, followed by 11,18,33
- 95% concordance between oral strain in infant and genital warts in mother up to 2 months
- Highest transmission in mothers with h/o genital warts and mothers 20-34 yo
- Concordance with placenta and cord blood samples
- Vertical transmission likely source of infection

Koskimaa. J Pediatr 2012;160:837-43

VERTICAL TRANSMISSION
LIKELY SOURCE IN MAJORITY



Impact of HPV vaccines on anogenital warts in young children

- Incidence of warts in females 15-19 years in Germany decreased from 316/100,000 person years in 2007 to 242 in 2008 (Mikolajcz RT. Sex Transm Dis 2013)
- Similar findings in Denmark 2013
- 35% decrease in California study in males and females between 2007-2010
- **THE VACCINE WORKS: IMPACT ON CHILDREN UNDER 3 YEARS OF AGE?**



Anogenital warts then and now...

- **Consider non-venereal transmission in children**

under 3 yo (maybe under 5)

when warts present in contacts

**when extra-genital warts in
patients**

when no evidence of abuse

PROTECT YOUR PATIENTS/FAMILIES



To Treat or Not

- **High rate of spontaneous remission**

Allen AL, Siegfried EC. JAAD 1998;39:951-5

- **Imiquimod and podophylotoxin safe and work in infants too!**

Moresi, Herbert, Cohen. Pediatr Dermatol 2001;18:448-50



**WARNING; The Surgeon General
Has Determined That Studying Makes
Your Eyes Red And Causes Warts.**



**The
End**



Role for Dermatologist- **Evaluate for markers of Child Maltreatment** **and Define Primary Derm Dx**

- Irritant dermatitis
- Anatomic variants
- Labial adhesions
- Urethral prolapse
- Straddle injuries
- Constipation-skin tags, fissures
- Inflammatory bowel disease
- Lichen sclerosis
- Immunobullous disorders



Contemporary **PEDIATRICS**

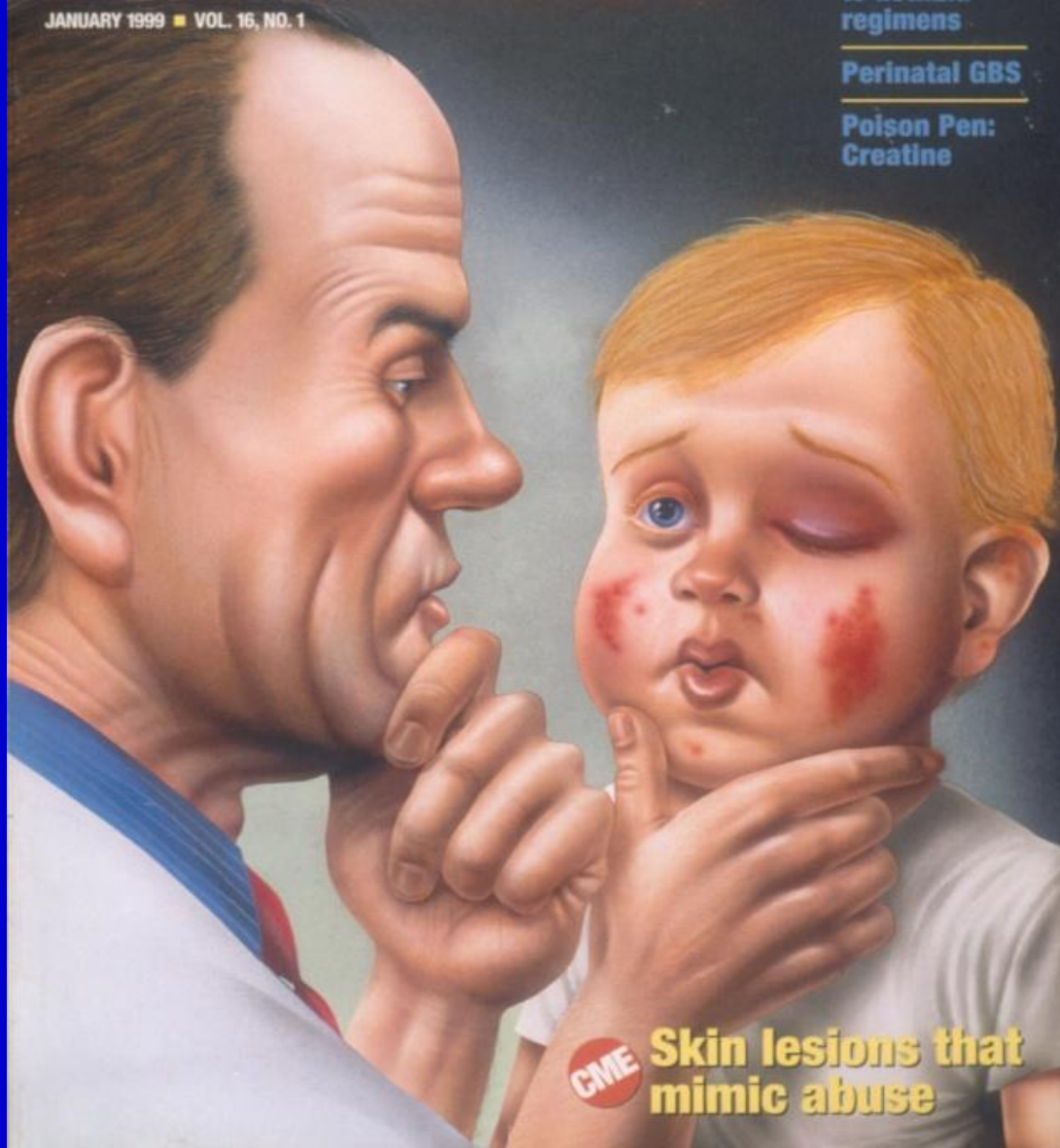
JANUARY 1999 ■ VOL. 16, NO. 1

Special report
**1999
immunization
schedule**

**Adherence
to asthma
regimens**

Perinatal GBS

**Poison Pen:
Creatine**

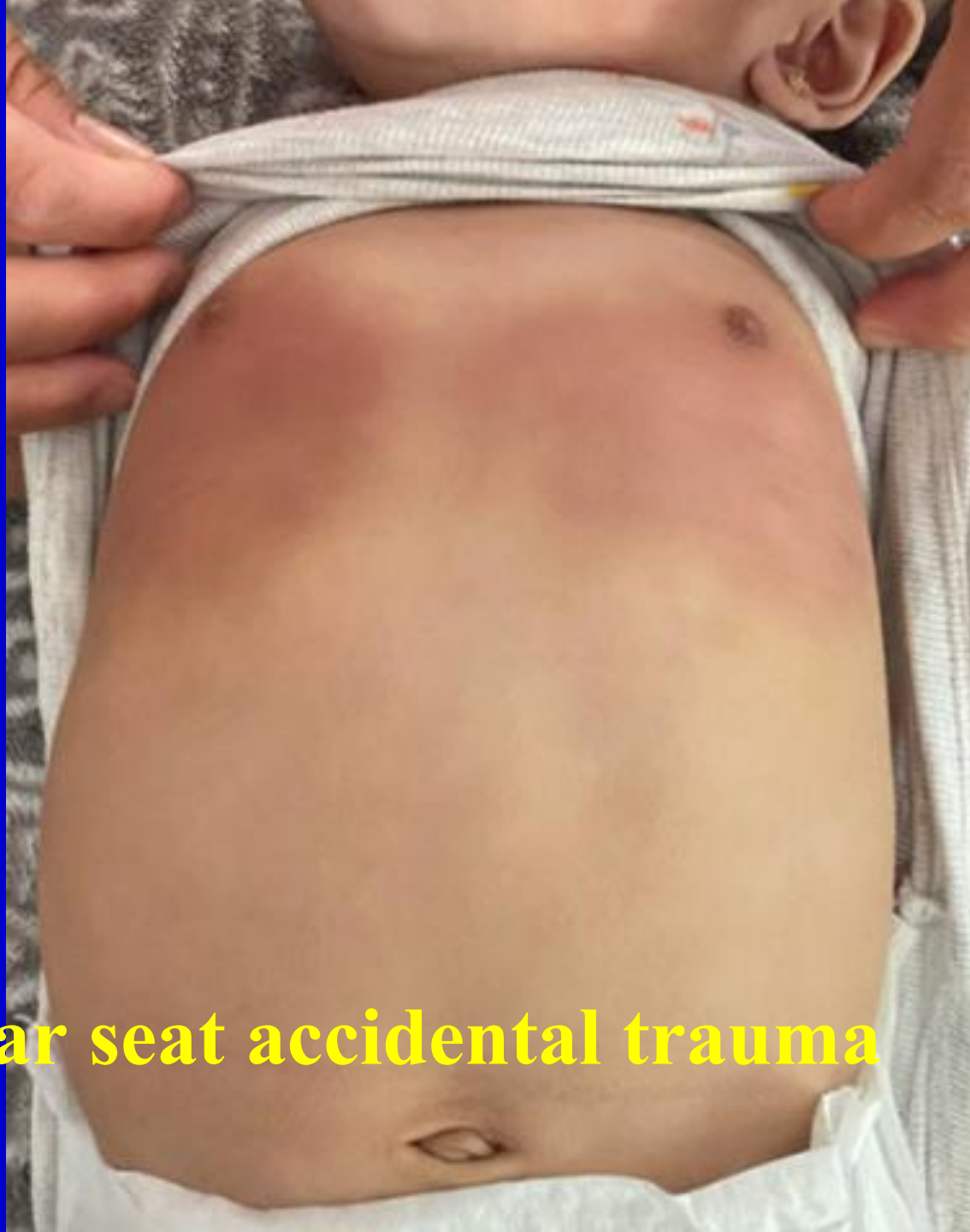


**Skin lesions that
mimic abuse**



Cutaneous Findings Mistaken for **Physical Abuse: Present but Not** **Pervasive** (Schwartz KA, et al. *Pediatr Dermatol* 2014;31:146-155)

- Prospective study, CAP, 20 US centers
- Of 2,890 children, 137 had mimics
- Of 2,753 without, 39% deemed high risk
- Of 137 with mimics, 6% deemed high risk
- So lower risk but still should be considered



Car seat accidental trauma

Henoch-Schonlein Purpura



Suction Cupping



Thrombocytopenia





Portwine Stain





1 week old infant developed this lesion on the abdomen and another on the bottom of the foot shortly after birth







Mimicker

The foot lesion resolved 10 days later. The abdominal lesion grew for several weeks and stabilized.

Misdx as bruise and went to trial because of concern about child maltreatment!





- **This healthy 4-year-old girl with a history of a congenital right hip lesion which was repaired when she was 1.5 years old developed a chronic, pink, itchy rash involving the abdomen, chest, neck, face, upper back and proximal upper extremities for several months when she was 4 years old.**















Her mother had her evaluated by her pediatrician who noted multiple bruises and referred her to the pediatric emergency room where she was subsequently evaluated by the Child Abuse Pediatrician and put into protective custody. Six weeks later when the primary diagnosis was made she was returned to her parents.

Interestingly, chronic urticarial has a tendency to involve the face, upper trunk, face, neck and proximal extremities. The associated intense pruritus results in chronic scratching with associated bruising which improved dramatically when she was treated with oral cetirizine.

Congenital Melanocytic Nevus



Congenital Blue Nevus

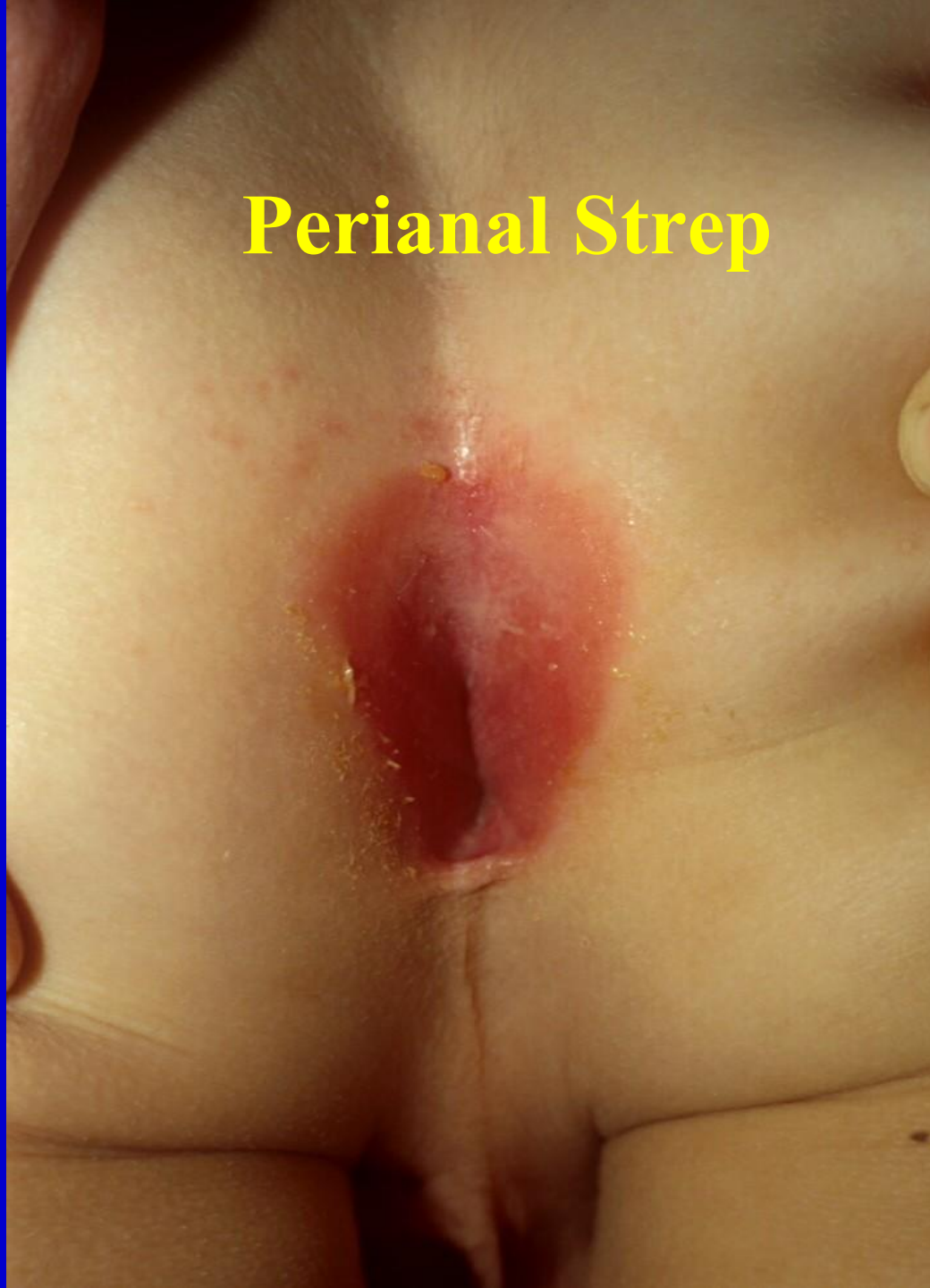


Hymenal Tag





Perianal Strep





Anogenital Strep





Lichen Sclerosis



Linear IgA Bullous Dermatosi



Linear IgA Bullous Dermatositis



Herpes Zoster



Molluscum



Contact Irritant Dermatitis



Perianal Pyramidal Protrusion





Conclusions

- **Be vigilant**
- **Dermatologist plays critical role**
- **We are obligated and protected**
- **Index of suspicion**
- **Recognize markers and mimics**
- **Work with PCP, child protective services**



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**The
End**