



**WI CAN Educational Series-
The Crying Infant: Strategies to
Prevent Abuse**

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Angela Rabbitt, DO
The Crying Infant: Strategies to Prevent Abuse

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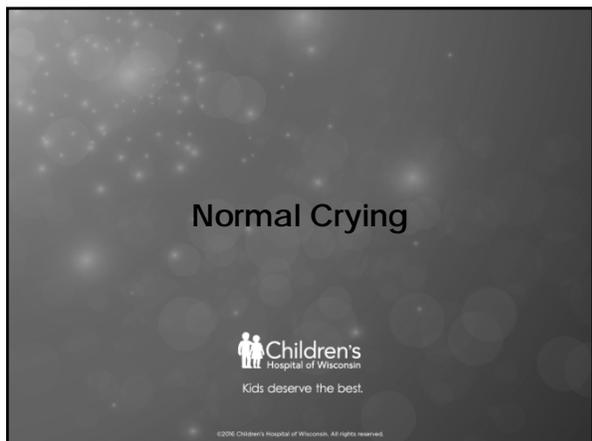
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Objectives

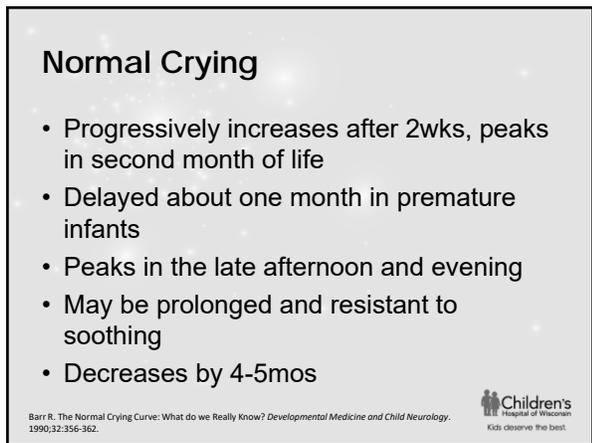
- Normal infant crying
- Some medical causes of crying
- The association between crying and abuse
- How to help caregivers cope with crying
- State and local initiatives and resources

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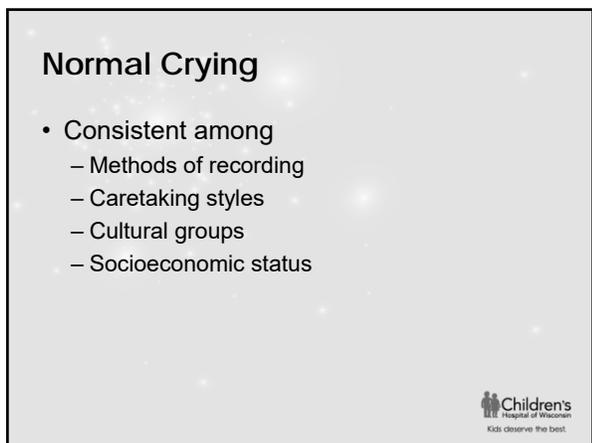
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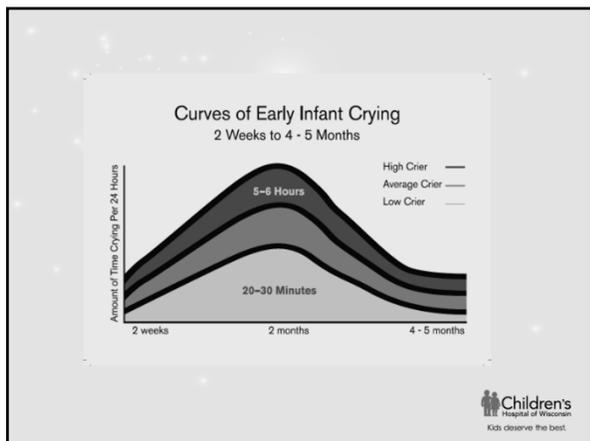
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The Period of PURPLE Crying

THE LETTERS IN PURPLE STAND FOR

P PEAK OF CRYING Your baby may cry more each week, the most in month 2, then less in months 3-5	U UNEXPECTED Crying can come and go and you don't know why.	R RESISTS SOOTHING Your baby may not stop crying no matter what you try.	P PAIN-LIKE FACE A crying baby may look like they are in pain, even when they are not.	L LONG LASTING Crying can last as much as 5 hours a day, or more.	E EVENING Your baby may cry more in the late afternoon and evening.
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THE WORD PERIOD MEANS THAT THE CRYING HAS A BEGINNING AND AN END

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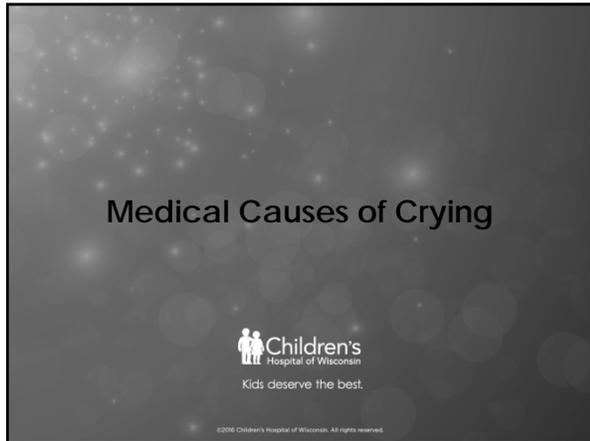
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Concerns about Crying are Common

- 303 infants in CHW ED or Urgent Care with complaints of fussiness and crying (2015)

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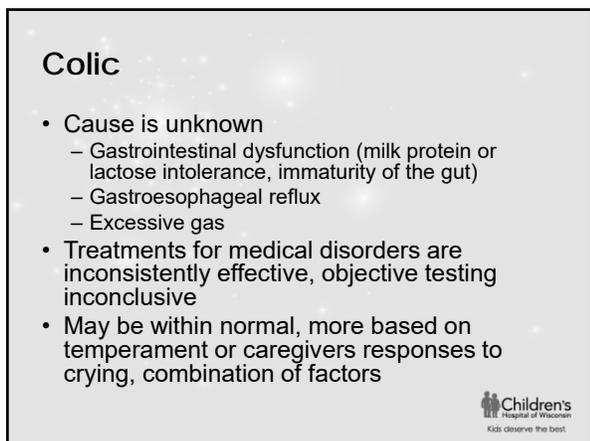
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Gastrointestinal Dysfunction

- Constipation
- Gastroesophageal Reflux Disease
- Cow and/or soy milk protein allergy or intolerance
- Lactose intolerance is **extremely rare**
- More likely if crying is associated with
 - Vomiting
 - Poor growth
 - Blood in stools
 - Temporally related to feeds



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Gastrointestinal Dysfunction

- Making a diagnosis of GERD or milk/soy allergy or intolerance:
 - First assess feeding volume and technique
 - DO NOT put baby to sleep on stomach or side, or use positional devices while sleeping
 - Try whey hydrolysate formula- up to 40% of vomiting and pain in reflux is caused by inflammation from milk protein allergy
 - Try probiotics
 - Implement changes one at a time and for at least 2wks
 - Then try medications for reflux

Rosen, R. 2018



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Diagnostic Pitfalls

- Urinary tract infection
- Drug reactions
 - Prenatal: benzos, amphetamines, heroin, methadone, buprenorphine, other opioids, some antidepressants and anxiolytics
 - Postnatal: cocaine, amphetamines, opiates, fluoxetine, caffeine, pseudoephedrine
- Intracranial process
 - Neuro exam is a poor screen in infants

Rubin DM, Christian CW, et al. Occult Head Injury in High-Risk Abused Children. Pediatrics 2003; 111:1382-1386



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Increased concern when:

- Other symptoms of illness
- Ill appearing
- Sudden and/or persistent inconsolability
- Unexplained poor growth, developmental delay
- History of previous neurological symptoms or suspicious injuries
- Other suspicion for abuse

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Questions?

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Infant Crying and Abuse

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The effects of crying

- On the infant
 - Self-resolving
 - Most don't have continued problems on re-evaluation at 2yrs of age
 - Premature cessation of breast-feeding
 - Excessive weight gain
 - When combined with family dysfunction are at higher risk for ongoing behavioral problems



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The effects of crying

- On the caregiver
 - Higher rates of depression
 - Strained family relationships
 - Guilt about inability to calm infant
 - Beliefs about the cause of the crying can have a lasting effect on how they interact with child and beliefs about the child's health



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Infant Distress and Child Maltreatment

- Infant Distress:
 - Description by parent describing infant as excessive crier, fussy, colicky, irritable
 - Feeding issues
 - Formula changes, intolerance
 - Us of OTC for distress
 - Prescriptions for reflux
 - Teething <6mos



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Infant Distress and Child Maltreatment

- Retrospective study of 314 infants, some of whom were abused and some not abused.
- 30% of abused infants had a previous sentinel injury
- A history of infant distress was much more common in abused versus non-abused infants



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Infant crying is a trigger for abuse

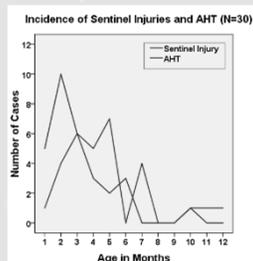
- Parental reports
 - Survey of parents¹
 - By 1mo 2% had taken "detrimental action" to stop the crying, by 6mos 6% had smothered, slapped or shaken infant
 - Confession studies
 - Crying is the trigger in 67% of AHT²
 - 55% admitted to repeated episodes of shaking because the shaking stopped the crying³

¹Reijneveld SA et al. Infant crying and abuse. The Lancet. 2004;364(9442):1340-1342.
²Faherty EG. Analysis of caretaker histories in abuse: comparing initial histories with subsequent confessions. Child Abuse & Neglect. 2006;30(7):789-796.
³Adamsbaum C et al. Abusive Head Trauma: Judicial admissions highlight violent and repetitive shaking. Pediatrics. 2010;126:546.



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Normal Crying Curve: AHT Incidence



Barr RG et al. Age-related incidence curve of hospitalized Shaken Baby Syndrome cases: Convergent evidence for crying as a trigger for shaking. Child Abuse & Neglect. 2006;30:7-16.
 Sheets LK et al. Sentinel Injuries in infants evaluated for physical abuse. Pediatrics. 2013;131(4):701.



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Why is Crying Frustrating?

- Not the fun experience parents expected
- Feelings of resentment toward the baby
- Social pressure to have a “good baby”
- Fear of being a bad parent
 - the parent personalizes the crying as poor parenting
- Fear that the crying will never end



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The effects of crying

- “I got advice from everyone, friends, family, and the doctors... My mother in law told me it was because I fussed over her too much. My confidence was so low about being a good mother that I was beginning to think that I was the cause. I felt so inadequate as a mother because my child cried every night and I could not make her feel better.”
- One evening after months of crying, I had had enough. I remember my mind drifting off to a horrible place... and visions of me screaming at the top of my lungs... grabbing Jady... shaking her.”

Purplecrying.info



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Risk factors for abuse

- Recurrent presentation to medical for crying or expressing significant frustration
- Prematurity (less than 36 weeks' gestation or history of prolonged neonatal hospital stay)
- Chronic Illness – FTT
- Children with Special Needs
- Multiples (twins, triplets etc.)
- Families with DV
- Families with AODA issues
- Families with Mental Health Issues
- Poor understanding of normal development
- Poor social supports

• Heenan HT, Runyan DK, Marshall DW, Noceris MA, Merten DF. A population-based comparison of clinical and outcome characteristics of young children with serious inflicted and noninflicted traumatic brain injury. *Pediatrics*. 2004;114(3):633-639.
 • Henry C. Child Abuse and Neglect: Diagnosis, Treatment, and Evidence. Elsevier Publishing, 2011.
 • Lindberg DM et al. Prevalence of abusive injuries in siblings and household contacts of physically abused children. *Pediatrics*. 2012;130:1-9.



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Post Partum Depression

- “The baby blues”
 - 80% of new mothers
 - Starts 3-4 days after delivery, lasts up to 2wks
 - Normal
- Postpartum depression
 - From to 10-16% of new mothers
 - Onset within the first few months of delivery
 - It’s treatable

Viguera A. Postpartum unipolar major depression: epidemiology, clinical features, assessment and diagnosis. UpToDate. https://www.uptodate.com/contents/postpartum-unipolar-major-depression-epidemiology-clinical-features-assessment-and-diagnosis?source=use_link. Accessed 7/18/17.



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How to help caregivers cope with crying



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Evidence-based strategies to decrease crying in infancy

- Carrying and feeding on demand in the first few months of life
- Room sharing in first 3mos
- Prompt attempts to soothe before the crying becomes inconsolable (in first few months)
- Consistent routine

St. James-Roberts L. The Origins, Prevention and Treatment of Infant Crying and Sleep Problems: An evidence-based guide for healthcare professionals and the families they support. New York, NY: Routledge; 2012.



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Comfort measures

- Period of Purple Crying
- Happiest Baby on the Block
- AAP Resources
- Common themes:
 - Swaddling
 - Decreased stimulation
 - Pacifier, rocking, noise and vibration
 - Warm bath



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Drug exposures

- No significant or reproducible effect
 - Simethicone
 - Gripe water
 - Fiber enriched formula
 - Lactase enzyme
- Dangerous
 - Sedating medications (Benadryl, cough meds, opiates)
 - Topical anesthetics for teething



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Education for caregivers

- Sometimes there is nothing you can do
- Crying peaks in the second month, then improves
- Infants have trouble stopping themselves once they start
- You can't spoil a very young infant
- Most cry-fuss problems are not predictive of ongoing behavior problems



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REALLY IMPORTANT MESSAGES

- Put the baby in a safe place and walk away if frustrated
- Never shake, squeeze, smother, hit, or roughly handle an infant
- Don't use medications to calm an infant
- Have a plan to handle the crying- find a support person
- Share the education and tips for coping with all who care for the infant



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State and Local Initiatives and Resources



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The Period of PURPLE Crying®
A New Way To Understand Your Baby's Crying



The *Period of PURPLE Crying* program is an evidence-based shaken baby syndrome/abusive head trauma prevention program available since 2007.

The program has two aims:

1. To support parents and caregivers in their understanding of early increased infant crying
2. To reduce the incidence of SBS/AHT



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Why PURPLE

- Designed and approved by pediatricians, public health nurses, child development experts and parents.
- Evidenced-Based: The program is based on 25 years of scientific research on Infant crying
- Positive approach



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Three Dose Model

- Dose 1: Provision of materials, video, and 1 on 1 education
- Dose 2: Reinforcement messaging
- Dose 3: Community campaign



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Click for Babies: Dose 3



"CLICK" your knitting needles together for this grassroots campaign to help prevent Shaken Baby Syndrome throughout Wisconsin!

<http://celebrate-children.org/click-for-babies/>



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Infant Safety Education in the NICU

- Survey of mothers with infants at CHW NICU
 - Knowledge and beliefs regarding infant crying
 - Confidence in coping with crying and providing the education to others
 - Distributed at admission, at discharge, and 4mos post discharge



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Infant Safety Education in the NICU

- Significant increase in knowledge ($p < 0.0001$) and confidence ($p < 0.0001$) between pre- and follow-up survey
- 77% shared the information with others
- 62% remembered a situation in which the education was helpful
- Few received information about coping with crying (35%) and AHT (27%) from a healthcare provider after discharge



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Supporting Families with Fussy Infants in Pediatric Primary Care

- Survey sent to 21 primary care offices.
 - 80% use in-office counseling regarding infant soothing when parents have crying concerns
 - Only 5% are talking about abusive head trauma
 - 94% felt it was important to have resources and tools to support caregivers



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Overview

- Collaboration between Children's Community Services and Children's Hospital
- Funding from The Child Abuse and Neglect Prevention Board to implement Period of PURPLE Crying
- Program implementation areas include:
 - 26 primary care clinics in Milwaukee
 - 6 urgent care locations
 - Children's Hospital of Wisconsin
 - NICUs in Milwaukee and Fox Valley
 - CHW ED
- Implementation began at the end of 2016



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For more information and access to parent education

www.dontshake.org
www.purplecrying.info

Child Help Hotline:
1-800-4-a-child



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State Resources

- Parent education materials available through the Child Abuse and Neglect Prevention Board

<https://preventionboard.wi.gov>



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Parent Education is a Piece of the Solution

- Must reach the intended audience
- Must address risk factors
- Self-regulation



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Other promising interventions for infants

- Home visiting
 - Patient Protection and Affordable Care Act of 2010
 - Systematic review evidence in reduction of maltreatment
 - Child FIRST
 - Early Head Start- Home Visiting
 - Early Start (New Zealand)
 - Healthy Families America
 - Nurse Family Partnership

Avellar SA, Supplee LH. Effectiveness of Home Visiting in Improving Child Health and Reducing Child Maltreatment. *Pediatrics* 2013;132:590-599.



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Home Visiting Programs in Wisconsin

- Healthy Families America
- Nurse Family Partnerships
- Early Head Start

<https://www.dhs.wisconsin.gov/mch/homevisits.htm>



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Triple P- Positive Parenting Program

- Associated with reductions in county-wide rates for
 - Substantiated child maltreatment
 - Out of home placement
 - Hospital treated child maltreatment injuries

Prinz RJ et al. Addendum to "Population-based prevention of child maltreatment: The US Triple P system population trial. Prevention Science. 2016;17(3):410-416.



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Triple P- Positive Parenting Program

- Multiple levels of interventions
 - Levels 1-5
- Multiple ways to access the program
- Focuses on developing positive relationships with child, particularly those with behavior problems
- Purpose is to equip parents with skills and confidence to manage family issues without ongoing support

Triplep.net



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Triple P – Positive Parenting Program

- The Parenting Network
 - Kenosha, Milwaukee, Ozaukee, Racine, Washington, Waukesha

theparentingnetwork.org
414-671-0566 (Parent Helpline)

- Additional programs
 - Education and support for parents (including dads)
 - Confidential phone counseling
 - Referrals to home visiting programs and community resources



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Child Abuse & Neglect Prevention Board

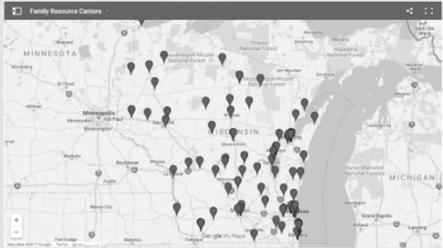


For information about local parenting education and resources: preventionboard.wi.gov

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Family Resource Centers



Community focused prevention programs throughout Wisconsin

preventionboard.wi.gov

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Other innovative programs

- Fussy Baby Clinics
- Fussy Baby Network (Chicago)
 - Home visiting with infant-parent specialists
 - Medical and behavioral assessment
 - “Warm” line
 - Support group for mothers experiencing post-partum depression and families with fussy infants

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Conclusions

- Education about crying is an important piece of prevention
- Should be a part of anticipatory guidance
- Important to recognize families at risk for maltreatment and be prepared to provide additional resources



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Resources

- Barr R. The Normal Crying Curve: What do we Really Know? *Developmental Medicine and Child Neurology*. 1990;32:356-362.
- Rubin DM, Christian CW, et al. Occult Head Injury in High-Risk Abused Children. *Pediatrics* 2003; 111:1382-1386
- Reijneveld SA et al. Infant crying and abuse. *The Lancet*. 2004;364(9442):1340-1342.
- Flaherty EG. Analysis of caretaker histories in abuse: comparing initial histories with subsequent confessions. *Child Abuse & Neglect*. 2006;30(7):789-798.
- Adamsbaum C et al. Abusive Head Trauma: Judicial admissions highlight violent and repetitive shaking. *Pediatrics*. 2010;126:546.



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- Jenny C. *Child Abuse and Neglect: Diagnosis, Treatment, and Evidence*. Elsevier Publishing, 2011.
- Rosen R, et al. Pediatric Gastroesophageal Reflux Clinical Practice Guidelines. *Journal of Pediatric Gastroenterology and Nutrition*. 2018;66(3):516-554.



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Resources

- Lindberg DM et al. Prevalence of abusive injuries in siblings and household contacts of physically abused children. *Pediatrics*. 2012;130:1-9.
- Viguera A. Postpartum unipolar major depression: epidemiology, clinical features, assessment and diagnosis. UpToDate. https://www.uptodate.com/contents/postpartum-unipolar-major-depression-epidemiology-clinical-features-assessment-and-diagnosis?source=see_link. Accessed 7/18/17.
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- Avellar SA, Supplee LH. Effectiveness of Home Visiting in Improving Child Health and Reducing Child Maltreatment. *Pediatrics* 2013;132:S90-S99.
- Prinz RJ et al. Addendum to "Population-based prevention of child maltreatment: The US Triple P system population trial. *Prevention Science*. 2016;17(3):410-416.
- Barr RG et al. Eight-year outcome of implementation of abusive head trauma prevention. *Child Abuse & Neglect*. 2018;84:106-114.



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Once your attendance is tracked, you should login to your account at <https://ocpe.mcw.edu> to complete your evaluation and print a certificate.

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