

WHAT IS

Necrotizing Enterocolitis?



What is NEC?

Babies born prematurely are at risk for a number of diseases within the first few weeks of life. Of these diseases Necrotizing Enterocolitis (NEC) is the most common and serious intestinal disease among preemies. NEC happens when tissue in the small or large intestine is injured or begins to die off. This causes the intestine to become inflamed or weak, which in turn may cause it to break down causing a hole to develop (perforate).

When this happens, the intestine can no longer hold its content so bacteria and waste products pass through the intestinal wall and enter the baby's bloodstream or abdominal cavity. This makes a baby very sick, possibly causing a life-threatening infection.

NEC typically affects babies born before 32 weeks gestation, but it can occur in full-term infants who have health problems, like a heart defect.



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What causes NEC?

The exact cause of NEC is unknown, but experts believe that different factors might play a role. These include:

- An underdeveloped intestine
- Too little oxygen or blood flow to the intestine at birth (usually the result of a difficult delivery)
- Injury to the intestinal lining
- Heavy growth of bacteria triggers an inappropriate inflammatory response in the intestinal wall that erodes the intestinal wall
- Formula feeding (babies who are fed breast milk have a lower risk of developing NEC)

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What are some of the signs and symptoms of NEC?

The symptoms of NEC can be similar to those of other digestive conditions, and may vary in severity from baby to baby.

Common symptoms include:

- A swollen, red, or tender belly (abdomen)
- Not feeding well
- Food staying in the stomach longer than expected (residuals)
- Constipation
- Diarrhea and/or dark or bloody stools (poop)
- Being less active
- A low or unstable body temperature
- Rarely, green vomit (containing bile)

Other signs of NEC can include apnea (periodic stops in breathing), bradycardia (slowed heart rate), and hypotension (low blood pressure). More severe cases may have fluid in the abdominal cavity that shows up on X-ray, peritonitis (infection of the membrane lining the abdomen) or shock.



How will my baby be treated for NEC?

All infants suspected of having NEC need to be treated with medicines and bowel rest. About one third may need surgery to repair the intestine.

After diagnosis, treatment begins immediately and includes:

- Temporarily stopping all feedings
- Nasogastric drainage (inserting a tube through the nose into the stomach to remove air and fluid from the stomach and intestine)
- Intravenous (IV) fluids for fluid replacement and nutrition
- Antibiotics to treat or prevent infection
- Frequent examinations and X-rays of the abdomen
- A consultation with a pediatric surgeon to discuss surgery, if needed



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How will my baby be treated for NEC? (continued)

After responding to treatment, a baby can be back on regular feedings after a week. When feedings start again, breast milk is recommended. Breast milk is beneficial for babies with NEC because it is easily digested, supports the growth of healthy bacteria in the intestinal tract, and boosts a baby's immunity — which is especially important for a preemie with an immature immune system.

Clinical experience has shown that a 100% Human Milk Diet is well tolerated by babies that have had NEC or other forms of feeding intolerance.*

*Personal communications from various clinicians.



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Can anything reduce the incidence of NEC?

Using a 100% human milk-based diet, including a human milk-based human milk fortifier, can help reduce the odds of developing NEC as well as other significant complications.¹ No other intervention has been shown to be nearly as effective.^{2,3}



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What determines when I can take my baby home?

Some of the milestones that must be achieved before your baby can go home may include:

- Your baby continues to gain weight
- Your baby can take feedings by the nipple
- Your baby can maintain body temperature in an open infant crib
- Your baby can breathe well and has a normal heart rate

For more information visit

<http://www.prolacta.com/premature-babies-have-increased-nutritional-needs>



For more resources visit

Pro lacta's YouTube Channel.



Additional Resources:

<http://kidshealth.org/parent/medical/digestive/nec.html>

References:

1. Abrams S, et al. Breastfeed Med. 2014;9:29-37. Doi:10.1089/bfm.2014.0024
2. Sullivan S, et al. J. Pediatr. 2010; 156:562-567. Doi:10.1014/j.peds.2009.10.040.
3. Bell EF. Preventing necrotizing enterocolitis: what works and how safe? Pediatrics 2005;115:173

