

You and your Newborn

Tips to the new Parents

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Fever in a Newborn



A newborn has an immature temperature regulation system and therefore fever may not occur even if there is an infection or illness. However, in a baby younger than 3 months old, a temperature of > 100 F. 4 F rectally or 100 F orally or in the ear is considered fever and you need to notify your Doctor immediately.

First make sure that the baby is not wrapped with many blanket and that the room temperature is not very hot. Wrapped with many clothes/blankets and that the room is not too hot. The baby should be clothed and covered appropriately. In a child less than 2-3 months old with fever, they need to be admitted to the hospital for most part and need further testing and antibiotics.

The fever can increase fluid loss and increase metabolic rate, therefore it is important to pay attention to fluid intake and urine output.

Once the child is over 3 months of age, depending on the clinical presentation and whether there is a source of infection or not, the Pediatrician can guide you. Most babies by now have little more mature immune system and therefore can localize the infection unlike newborns where the infection from one body organ can spread to all other organs vary rapidly (including brain

and cause Meningitis). Ear infections and viral infections are common causes of fever in children. urinary infections are

FEVER

common as well. After examination, your Pediatrician can order blood and or urine tests to determine the source of fever.

Call your doctor if

1. Infant < 3 months with rectal temp of > 100.4 F
2. 3 months onwards with fever of > 101 F
3. Inconsolable crying
4. Irritability or lethargy (unable to awaken)
5. Confusion or delirium
6. Rashes
7. Stiff neck (hard to appreciate in less than 1 yr old)
8. Difficulty breathing
9. Too ill to eat or drink
10. Signs of dehydration, decrease urine or no urine for several hours
11. Seizures
12. If parents/care takers are uncomfortable and worried

CONSTIPATION



Infants pass green-black stool called Meconium. Meconium is a sterile stool produced over many months in utero composed of fallen fetal skin cells, hair and fetal urine. Most babies pass meconium within 48 hours. Failure to pass meconium after birth in a timely fashion may indicate serious intestinal/genetic diseases. As the feedings become established, the stool becomes yellow-green. Most infants have

daily stools, but some may have no stools for 3-4 days. If the infant is feeding well, has soft stools and is not uncomfortable, he/she is probably not constipated.

Formula fed babies have less frequent and drier stools than breast-fed babies. Breast fed babies are rarely constipated.

Even if your baby strains to pass a stool, he/she may not be constipated. Babies often grunt, turn red over face and pull up their legs while passing stool. However, if the stool is soft and passes without pain (crying), these behaviors are normal. You may help the baby curl the knees against the chest. If you can imagine an adult passing stool while laying flat in the bed, it would not be easy.

CONSTIPATION



If the infant has not passed stool in a usual manner, you may try 2-3 oz of water or 2 oz of 1: 1 (1 part prune juice and 1 part water) diluted prune juice once. In older infants, add fruits and vegetables to their diet. If neither works, contact the health care provider. Occasionally, inserting a ½ Pediatric Glycerin rectal suppository no more than 1 cms deep in the rectum can help. However, if the infant needs Glycerin suppository, on more than 1-2 occasions, you should contact M.D. Sometimes, it may represent more serious diseases like intestinal obstructions or a disease called Hirschsprung's disease. Such conditions need immediate medical attention and treatment. Never give an enema to your child, because it can cause serious electrolyte disturbances.

Call the M.D. immediately, if the baby has following S/S

1. Feeding poorly or vomiting
2. Abdomen is big and swollen
3. Baby is in pain

4. Blood in the stool
5. Home remedies do not help

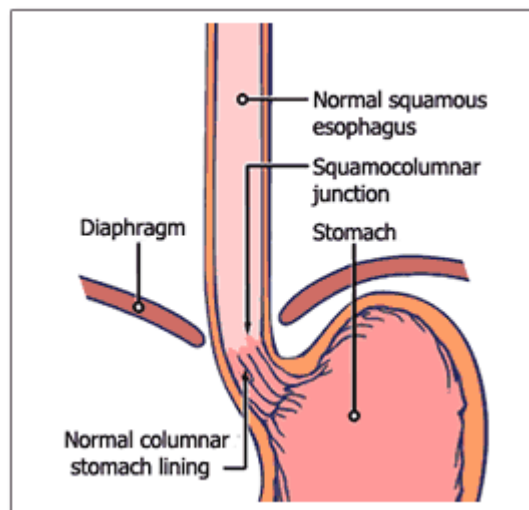
Gastro-Esophageal Reflux

What is G-E R (also called GERD in adults) ??

Gastro= stomach

Esophageal= A tube that connects mouth to the stomach

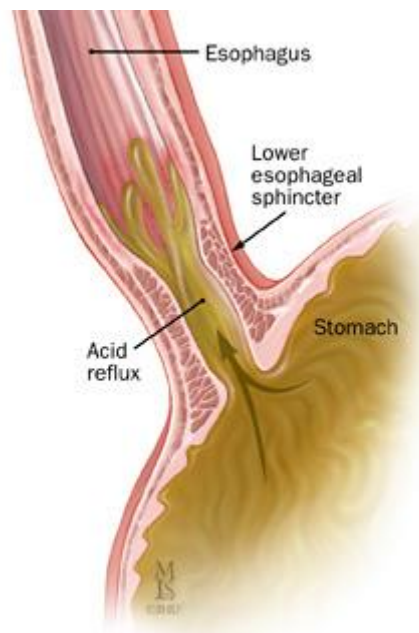
Reflux= food/liquid flow backward



Normal anatomy of stomach and esophagus

Normally after eating/drinking, the food goes from the mouth to the esophagus to the stomach. Between the junction of the stomach and esophagus there a sphincter called lower esophageal sphincter (LES) which closes after meals prevents the food going back to the esophagus from the stomach. In infants, especially premature babies, the LES is not well developed and therefore allows food and acid to regurgitate. The acid which is normally present in the stomach, now irritates the esophagus. The babies DO FEEL HEART BURNS just like adults. The symptoms are:

1. Hungry but when starts eating, shows discomfort, stretching of neck, arching or refuses to eat
2. Irritability
3. Gross or microscopic blood in the stool
4. Poor weight gain
5. Spitting up or vomiting
6. Retching or excessive gas
7. Unexplained anemia
8. Apnea, Baby stops breathing



The yellow color is acid regurgitating from the stomach in to the esophagus.

You can help your baby to reduce reflux

1. Hold the baby upright and keep while and after feeding for 1 hour or so

2. Baby should sleep with 45 degree head end elevation
3. Do not feed the baby while lying flat
4. Feed small amount of feeds and feed frequently so as not to starve the baby
5. Burp after every 1 -1 ½ ounces of feeds or more often if needed
6. Thicken the formula with 1 to 1 1/2 teaspoonful of baby rice cereals per 30 ml. If breast feeding, continue breast feeding.

For most part, the babies need reflux medications. The above measures are needed to minimize reflux along with medications. The medications are Zantac, Prilosec and Prevacid. Sometimes Reglan (Metoclopramide) is added for motility.

Reflux usually resolves after 4-5 months. Also once the baby is older, the baby is eating solids and is more in upright position. The LES also strengthens after 4-5 months. In some infants with or without associated medical conditions, GE Reflux may persist for over one year.

INFANTILE COLIC

About one in five babies has colic - a set of symptoms that includes inconsolable screaming, clenched fists, increased bowel activity and gas. The cause is unknown.

🕒 **Steps:**

1. Rock your baby in your arms, a carriage, a swing or a cradle (but not until your baby is at least six weeks old). Experiment with a variety of rocking positions, since all babies are different.
2. Sing a lullaby to your baby.
3. Walk around with your baby in a sling or backpack.
4. Wrap your newborn snugly in a soft blanket, as some infants are soothed
5. by being swaddled.
6. Gently massage your baby's back, tummy and thighs.
7. Give your baby a warm bath if he likes it.
8. Place your baby across your lap, tummy down, and stroke his back.
9. Walk around to relieve pressure, placing your forearm under your baby's rib cage with the baby facing outward.
10. Soothe your baby with sound: Some babies enjoy rhythmic noises, such as music, a vacuum cleaner or a dishwasher. They may also find riding in a car very soothing.

✳ **Tips:**

- Always consult your pediatrician about colic. A pediatrician can make a proper diagnosis, eliminating possible causes such as an intestinal problem or an allergy to formula. She may recommend a medication for gas relief or a different baby formula.

- ◆ Most babies outgrow colic by the end of their fourth month.

VOMITING

Vomiting may occur alone or associated with diarrhea. If both occur together is called Gastroenteritis. Usually they are caused by infections.

These infections often don't last long and are more disruptive than dangerous to your child. However, if kids (especially infants) are unable to take fluids adequately, and if there's also diarrhea, they could become [dehydrated](#).

Your most important intervention may be a calm approach - vomiting is frightening for young children (and parents, too) and exhausting for children of all ages. Offering plenty of reassurance to your child and taking appropriate measures to prevent dehydration are key for a quick recovery.

What to Do When Your Child Is Vomiting

For infants under 6 months:

- **Avoid** giving plain water to a young infant unless your child's doctor directly specifies an amount.
- Offer your infant small but frequent amounts - about 2 to 3 teaspoons, or up to 1/2 ounce (about 20 milliliters) - of an oral electrolyte solution every 15 to 20 minutes with a spoon or an oral syringe. Oral electrolyte solutions (available at most supermarkets or pharmacies and also called oral electrolyte maintenance solutions) are balanced with salts to replace what's lost with vomiting or diarrhea, and they also contain some sugar. It's especially important for young infants that any fluids given have the correct salt balance (unflavored electrolyte solutions are best for younger infants).

- Gradually increase the amount of solution you're giving if your infant is able to keep it down for more than a couple of hours without vomiting. For instance, if your little one takes 4 ounces (or about 120 milliliters) normally per feed, slowly work up to giving this amount of oral electrolyte solution over the course of the day.
- Do **not** give more solution at a time than your infant would normally eat - this will overfill an already irritated tummy and will likely cause more vomiting.
- After your infant goes for a period of time (more than about 8 hours) without vomiting, you can reintroduce formula slowly if your infant is formula-fed. Start with small (1/2 to 1 ounce, or about 20 to 30 milliliters), more frequent feeds and slowly work up to your infant's normal feeding routine. If your infant already eats baby cereal, it's OK to start solid feedings in small amounts again.
- If your infant is exclusively [breastfeeding](#) and vomits (not just spits up, but vomits what seems like the entire feed) more than once, then breastfeed for a total of 5 to 10 minutes every 2 hours. If your infant is still vomiting, then call your child's doctor. After 8 hours without vomiting, you can resume breastfeeding normally.
- If your infant is under 1 month old and vomiting all feeds (not just spitting up), call your child's doctor immediately.

For infants 6 months to 1 year:

- **Avoid** giving plain water to an infant under 1 year, unless an amount is directly specified by your child's doctor.
- Give your infant small but frequent amounts - about 3 teaspoons, or 1/2 ounce (about 20 milliliters) - of an oral electrolyte solution every 15 to 20 minutes. It's important that any fluids given to infants under 1 year of age who are vomiting have the correct salt balance (again, oral electrolyte solutions

are balanced with salts to replace what's lost with vomiting or diarrhea).

- An infant over 6 months of age may not appreciate the taste of an unflavored oral electrolyte solution. Flavored solutions are also available, or you can add 1/2 teaspoon (about 3 milliliters) of juice to each feeding of unflavored oral electrolyte solutions. Frozen oral electrolyte solution pops are often appealing to infants in this age group; this approach also encourages the slow intake of fluids that's required.
- Gradually increase the amount of solution you're giving if your infant is able to keep it down for more than a couple of hours without vomiting. For instance, if your infant takes 4 ounces (about 120 milliliters) normally per feed, work slowly up to giving this amount of oral electrolyte solution over the course of the day.
- Do **not** give more solution at a time than your infant would normally eat - this will overfill an already irritated tummy and will likely cause more vomiting.
- After your infant goes more than about 8 hours without vomiting, you can reintroduce formula slowly to your infant. Start with small (1 to 2 ounces, or about 30 to 60 milliliters), more frequent feeds and slowly work up to your infant's normal feeding routine. You can also begin small amounts of soft, bland foods that your infant is already familiar with such as bananas, cereals, crackers, or other mild baby foods.
- If your infant doesn't vomit for 24 hours, you can resume your normal feeding routine.

For children 1 year or older:

- Give **clear liquids** (milk and milk products should be avoided) in small amounts (ranging from 2 teaspoons to 2 tablespoons, or up to 1 ounce or 30 milliliters) every 15 minutes. Clear liquids that are appropriate include:

- ice chips or sips of water
 - flavored oral electrolyte solutions, or add 1/2 teaspoon (about 3 milliliters) of nonacidic fruit juice to the oral electrolyte solution
 - frozen oral electrolyte solution pops
- If your child vomits, then start over with a smaller amount of fluid (2 teaspoons, or about 5 milliliters) and continue as above.
 - If there's no vomiting for approximately 8 hours, then introduce bland, mild foods gradually. But do **not** force any foods - your child will tell you when he or she is hungry. Saltine crackers, toast, broths, or mild soups (some noodles are OK), mashed potatoes, rice, and breads are all OK.
 - If there's no vomiting for 24 hours, then you can slowly resume your child's regular diet. Wait 2 to 3 days before resuming milk products.

When Should You Call Your Child's Doctor?

The greatest risk of vomiting due to gastroenteritis (the "stomach flu") is dehydration. Call your child's doctor if your child refuses fluids or if the vomiting continues after using the suggestions above. Call your child's doctor for **any** of the signs of dehydration listed below.

Mild to moderate dehydration:

- dry mouth
- few or no tears when crying
- fussy behavior in infants
- fewer than four wet diapers per day in an infant (more than 4 to 6 hours without a wet diaper in a younger infant under 6 months of age)
- no urination for 6 to 8 hours in children
- soft spot on an infant's head that looks flatter than usual or somewhat sunken

Severe dehydration:

- very dry mouth (looks "sticky" inside)
- dry, wrinkled, or doughy skin (especially on the belly and upper arms and legs)
- inactivity or decreased alertness
- appears weak or limp
- sunken eyes
- sunken soft spot in an infant
- excessive sleepiness or disorientation
- deep, rapid breathing
- no urination for more than 6 to 8 hours in infants
- no urination for more than 8 to 10 hours in children
- fast or weakened pulse

The following symptoms may indicate a condition more serious than gastroenteritis and indicate that you need to contact your child's physician:

- projectile or forceful vomiting in an infant, particularly a baby who's less than 3 months old
- vomiting in an infant after the infant has taken an oral electrolyte solution for close to 24 hours
- vomiting starts again as soon as you try to resume the child's normal diet
- vomiting starts after a [head injury](#)
- vomiting is accompanied by [fever](#) (100.4 degrees Fahrenheit, or 38 degrees Celsius, rectally in an infant under 6 months of age or more than 101 to 102 degrees Fahrenheit, or 38.3 to 38.9 degrees Celsius, in an older child)
- vomiting of bright green or yellow-green fluid
- your child's belly feels hard, bloated, and painful between vomiting episodes

- vomiting is accompanied by severe stomach pain
- vomit resembles coffee grounds (blood that mixes with stomach acid will be brownish in color and look like coffee grounds)
- vomiting blood