

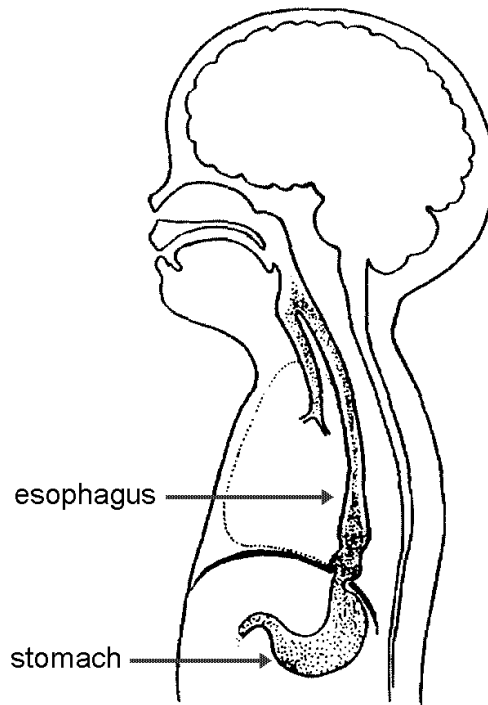


Seattle Children's
HOSPITAL • RESEARCH • FOUNDATION

Patient and Family Education

Gastroesophageal Reflux: Helping Your Baby





What is gastroesophageal reflux?

Gastroesophageal reflux (GE reflux) occurs when food and acid in your baby's stomach come back up into the esophagus. The esophagus is the tube that food goes down from the mouth to the stomach. A muscle at the lower end should close after food has entered the stomach. If this muscle does not close, or opens at the wrong time, milk and acid come back up the esophagus and may be spit up. Acid can irritate the esophagus. This may lead to fussiness, breathing problems or poor weight gain.

Dealing with GE reflux can be difficult for you and your baby. Try to be patient and positive. It will improve over time. Most children with GE reflux are healthy. GE reflux is usually outgrown between 6 and 12 months.

What are the signs of GE reflux?

You may see one or more of these signs:

Spitting up

Often babies with reflux spit up, but some do not. If your baby does spit up, it may be a small to medium amount many times during the day, or your baby might vomit larger amounts less often.

Food in the back of the throat

Food can come up into your baby's throat, but not be spit out. When this happens, your baby may have big gulping swallows, coughing and choking, or trouble catching their breath. Your baby may also have a red face or teary eyes.

Behavior changes

Reflux can be uncomfortable for your baby, especially if the food coming up is acidic or sour. Your baby may:

- Cry and be fussy, 1 to 2 hours after feeding
- Act like they are in pain and pull their legs up
- Act gassy

Babies with reflux often act uncomfortable when lying flat and prefer to be held upright. When a baby has reflux, fussy behavior usually occurs all day, rather than just in the evening.

Sleep problems

If reflux is uncomfortable, your baby may not sleep well. They may be restless, or wake up often. It is common for a baby with reflux to be sleeping comfortably on your shoulder, but wake up shortly after being put flat in bed.

Feeding patterns

Babies with reflux are often “snackers,” eating frequently. They may fuss often and seem to be hungry, but feed briefly and poorly. They may act hungry, but prefer to suck on a pacifier.

Breathing problems

Reflux can lead to changes in your baby’s breathing pattern. You might see irregular breathing or long pauses in breathing. Your baby’s face may turn pale or gray, if the breathing pause lasts a long time.

How do I know my baby has gastroesophageal reflux?

If your baby has signs of reflux, discuss them with your baby’s doctor. They can decide what tests should be done, make a diagnosis and recommend a treatment plan. Using one or more of these methods, your baby’s doctor will decide if your baby has reflux, if treatment is needed, and what treatment to use.

Your description of the problems is important in deciding if your baby has reflux. What you tell the doctor may be enough to decide this is the problem and begin treatment. The doctor may also recommend one or more of the following tests:

Barium swallow or Upper GI

This X-ray looks at the esophagus and stomach to show how well food travels to and stays in the stomach.

pH probe

A thin tube is put through the nose and into the esophagus to measure acid reflux in the esophagus. This study usually lasts 24 hours and is done in the hospital.

What can I do to help my baby?

Your baby's doctor will work with you to plan special ways to position, handle and feed your baby. The doctor may also prescribe medicine.

What are the medicines that my baby might need?

Medicines for GE reflux usually do not make the reflux go away. They may help your baby be more comfortable and reduce the amount of reflux. One common type of medicine reduces the amount of acid in the stomach. When your baby does reflux, it will not be as uncomfortable. Another type of medicine helps the stomach empty faster. Reflux is less likely to occur when the food is not in the stomach for as long.

What are the best positions for my baby?

Placing your baby in upright positions helps keep food in the stomach by gravity. When your baby's body is slouched, pressure on the stomach can push food out. Careful positioning keeps your baby's body upright and straight. It is very important to keep your baby upright and straight after eating. Many babies benefit from this positioning throughout the day and night.



Baby Equipment

Swings and bouncy seats work well to keep your baby upright. Use rolled blankets or towels to keep their body straight when they are slouching.

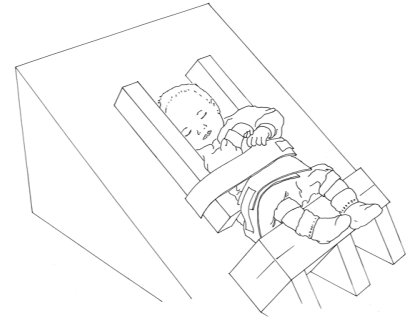
Wedge seat

This is used for sleeping or quiet play. Baby sits on the foam ledge. Fasten straps across baby's hips and chest, leaving the arms free to move.

Put the wedge in a crib or playpen. In a crib the mattress should be in the lowest position, so that the rails come up to the top of the wedge. The wedge can also be placed in a clean, safe, well-supervised space on the floor.

Wedge Seat Tips

- Do not use bulky blankets to cover the wedge. Use thin covers like receiving blankets or pillowcases.
- Under the cover, place a strip of waterproof fabric on the seating area to protect the foam from soiling.
- If the foam becomes dirty, use soap and water to sponge off the soiled area. Air dry before putting baby back into the wedge.
- Loose straps or foam can be re-glued using spray foam adhesive or contact cement (found at hardware stores).
- If the wedge breaks, becomes too small, your baby wiggles out of position, or you have other concerns, call the therapy department at 206-987-2113.



Car Seat

Young babies often slouch in their car seat when their bottom slips forward to the car seat crotch strap. Here are tips to keep baby upright and straight:

- A car seat with a 5-point harness will give baby the best support and keep them most secure.
- Make sure baby's bottom is well back in the seat, and their back is straight.
- If the crotch strap is not close to the baby's diaper, fill this space with a tightly rolled washcloth or diaper.
- Positioning the bottom correctly may lift the baby's shoulders. The harness should be threaded through the slots on the car seat at or just below the baby's shoulders.
- After the harness is snug and secure, you may use rolled towels or light blankets to pad around the baby's sides.



What are the best ways to handle and care for my baby?

Diapering

If your baby shows signs of reflux during diapering, prop your baby on a low wedge or pillow. Roll your baby to the side to wipe their bottom, rather than lifting both legs into the air. Try to time diaper changes before feeding, when the stomach is most empty.



Carrying and holding

When you carry and hold your baby, keep them upright with the body straight.

When cradling your baby in your arms, or for feeding, make sure they are upright and the body is straight.



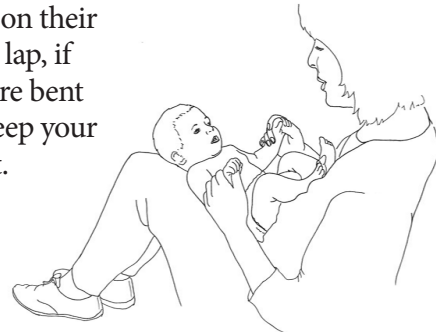
Holding your baby at your shoulder keeps them very upright and the body straight.



Choose a front pack that keeps your baby upright and straight.



Your baby can be comfortable on their back in your lap, if your knees are bent enough to keep your baby upright.



If you put your baby on their tummy over your lap, raise one knee so the head is higher than the bottom.



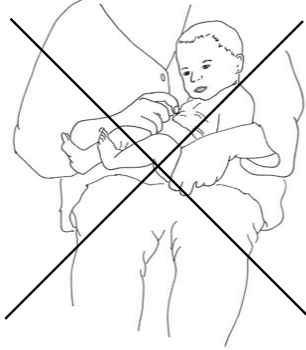
When you burp your baby sitting on your lap, be sure the body is straight upright, not leaning forward or slumped.



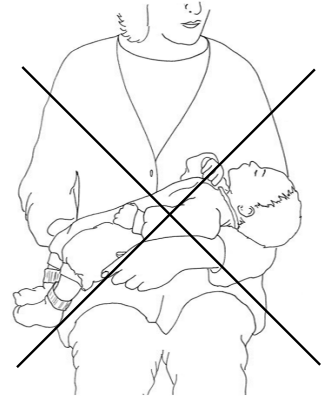
Positions to avoid

Do not use positions in which your baby is flat, slouched or the body is bent. This can make reflux worse.

This baby is upright, but wrinkles on the tummy tell you the body is bent.



This baby is very flat, so gravity cannot help keep food in the stomach.



It is easy for your baby to become flat or bent when you hold them a long time, especially during feeding. Check yourself or have a family member check your baby's position as you hold them.

Sling type carriers are not recommended. They tend to bend your baby's body more than a "front pack" carrier (see page 6).



This baby is upright, but the body is very bent, putting pressure on the stomach.



Does my baby need tummy time?

Yes. Babies with GE reflux spend a lot of time upright on their back, but your baby also needs to spend time playing on their tummy. This helps strengthen the neck, arm and chest muscles. Plan tummy play times before feeding, when the stomach is empty. Using a low wedge for tummy time may be helpful.

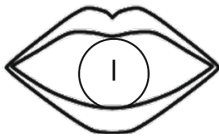
Will thickening the feeding help?

Based on your baby's problems, your baby's doctor may recommend thickening your baby's feedings. Increasing the thickness of your baby's milk may help it stay in the stomach.

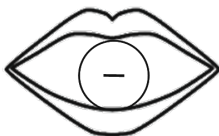
To thicken bottle feedings

If rice cereal is recommended, add 1 tablespoon of rice cereal to every 2 ounces of formula. If a commercial thickener is recommended, follow the directions for "nectar" thickness. If giving breast milk by bottle, a gel-based thickener is recommended.

The nipple hole may need to be larger, so the thickened liquid can flow through. It is best to choose a variable flow nipple with a slit opening. Liquid will flow fastest when the slit is straight up and down in the baby's mouth and slowest when the slit is across. You can turn the nipple in the baby's mouth to adjust the flow.



Fast flow



Slow flow

To thicken when breastfeeding

Because breast milk digests faster than formula, breastfed babies with GE reflux may not need to have thickened feedings. If thickening is recommended, mix 2–3 tablespoons of rice cereal with breast milk, formula, or water so it is thick like catsup. This can be given to your baby by bottle with a large cross-cut in the nipple, or by spoon. Give it before breastfeeding or in the middle of the feeding. Do not wait until the end of the feeding, since your baby may not be hungry enough to take the cereal.

Constipation

Using rice cereal or other thickeners may make your baby constipated. If this occurs, give 2 tablespoons of fruit per day. Pureed apricots, plums or prunes work well and can be added to a bottle. If this problem persists, discuss it with your baby's doctor. For some babies, commercial thickeners can lead to loose stools. If there are any stool changes that are concerning to you, discuss them with your baby's doctor.

What special ways should I feed my baby?

Other simple changes can often make feeding easier and help your baby have less GE reflux. Some of these are:

Feeding position

Be sure to hold your baby in a position with the body upright and straight. Using a pillow or chair arm to support your arm may help you keep your baby's head up higher. Don't hold your baby flat or with the trunk bent. See page 6, "Carrying and holding" for more information on the best positions.

Feeding schedule

Small, frequent feedings may help reduce GE reflux. Follow your baby's hunger signals, but try to space feedings 2 to 3 hours apart rather than 4 to 6 hours. Your baby will take less, and not overfill their stomach.

Burping

Extra air in the stomach can make spitting up more likely.

- When bottle feeding, reduce the intake of air by using an upright feeding position with your baby's head tipped slightly forward. Make sure there is not a big space between the chin and chest.
- Discourage "guzzling" feedings. Fast feeding may cause air swallowing.
- If your baby feeds very fast, help them take frequent short breaks during feedings. If this upsets them, let your baby suck on a pacifier or your finger during the pause.
- Stop often for burping during feeding. A number of positions can be used for burping, but be sure your baby's body is upright and straight. See page 6, "Carrying and holding" for more information on the best positions.

Moving your baby after feeding

Try to keep your baby upright and still for 15 to 30 minutes after feeding. When your baby's stomach is full, sudden movements and position changes may cause reflux. If possible, avoid changing diapers right after feeding.

What if I try these things and my baby still has problems with reflux?

These feeding and positioning guidelines cannot make reflux go away, but they often help to make the symptoms better. Your baby may not spit up as much and may be more comfortable. Your baby may still have some bad or fussy days. If this happens, try not to change the things you are doing right away. This often makes things worse, because consistency is important. Try to wait 2 to 3 days and if things do not get better, contact your baby's doctor. Then change only one thing at a time, so you will know what is helping.

What happens when my baby is better?

For most babies, GE reflux gets better as they get older. Many babies are much better by 6 months of age and reflux is usually outgrown by one year of age.

Symptoms will slowly go away, but at a different rate for each baby. Watching how your baby acts is important for deciding when treatment can be reduced or stopped. Know your baby's signs of reflux and note how often and in what conditions they occur. Share this with your baby's doctor and work together to decide when to make changes. It is usually best if changes in positioning and thickening of feedings are made slowly.

Once your baby shows less signs of reflux, you can begin to move your baby off of a wedge. Follow the steps below, but feel comfortable that your baby is not having problems with reflux at each step, before moving to the next.

1. Lay your baby down flat one hour before the next feeding.
2. Lay your baby down flat two hours before the next feeding.
3. Let your baby take one daytime nap in a flat position.
4. Do not use the wedge at all during the day, only at night.
5. Stop using the wedge at night.

You can raise the head end of the crib mattress slightly for any of these steps, if you think it would be more comfortable for your baby.

Free Interpreter Services

- In the hospital, ask your child's nurse.
- From outside the hospital, call the toll-free Family Interpreting Line 1-866-583-1527. Tell the interpreter the name or extension you need.
- For Deaf and hard of hearing callers 206-987-2280 (TTY)



4800 Sand Point Way NE
PO Box 5371
Seattle, WA 98145-5005

206-987-2000 (Voice)
206-987-2280 (TTY)
1-866-987-2000
(Toll-free for business use only)
1-866-583-1527 (Family Interpreting Line)

www.seattlechildrens.org

Seattle Children's offers interpreter services for Deaf, hard of hearing or non-English speaking patients, family members and legal representatives free of charge. Seattle Children's will make this information available in alternate formats upon request. Call the Family Resource Center at 206-987-2201.

This handbook has been reviewed by clinical staff at Seattle Children's. However, your child's needs are unique. Before you act or rely upon this information, please talk with your child's healthcare provider.

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