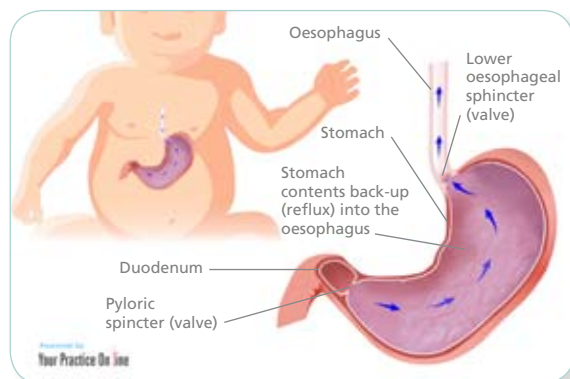


BACKGROUND

There are very important differences between gastro-oesophageal reflux (GOR), and gastro-oesophageal reflux disease (GORD). The differences can be summarized as follows:

GOR is normal, GORD is a disease.

GOR refers to the passage of stomach contents from the stomach into the oesophagus. It sometimes enters the throat or mouth, and in infants it is often ejected from the mouth. Some degree of GOR is a normal occurrence in individuals of all ages, especially during and immediately after meals. It is usually normal if it causes few, infrequent symptoms, or none at all.



In contrast, at all ages, **GORD** is present when reflux causes symptoms that are troublesome, severe, or of longstanding; and/or if reflux causes a complication, the most common being damage to the oesophagus ("oesophagitis").

This leaflet focuses on GOR and GORD *in infants, ie, under the age of 12 months.*



For further information on reflux in children visit:

Living With Reflux (LWR) Support Association

www.livingwithreflux.org

e-mail: info@livingwithreflux.org

Special thanks to Professor Eric Hassall who assisted with the content of this document.

The material set out in this leaflet is provided for information only and does not replace or substitute for a professional medical opinion.

Living With Reflux encourages readers to verify the information in the leaflet with other sources and to consult a medical professional before placing any reliance on it.

If you have any concerns regarding the health of a child, you should seek advice from a qualified medical professional.

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Parents guide to

Gastro-Oesophageal Reflux (GOR) and Gastro-Oesophageal Reflux Disease (GORD) in INFANTS (under 1 year of age)



Living With Reflux: providing support and information to families living with Gastro-oesophageal reflux

Living With Reflux support association.
UK registered non-profit organisation (Company No. 6508073)

INFANTS

Infants take in a huge volume of feeds relative to their body weight. This is because they are growing rapidly and require a much higher caloric intake than older children or adults. Breast- or formula-fed infants ingest approximately 150-200ml per kg per day. This is the equivalent of a 70kg adult taking in approximately 17 litres per day! The oesophagus in infants is relatively short and their stomachs cannot stretch easily to accommodate large volumes, so it is easy for stomach contents to overflow into the oesophagus, and out of the mouth. When it is ejected from the mouth, it is often referred to as infant 'regurgitation', 'spitting up', 'possetting', 'spilling', or 'vomiting'. It is usually effortless, but on occasion can be somewhat forceful. The peak age for regurgitation is between 3 and 7 months, during which up to 70% of otherwise healthy, happy, thriving infants may regurgitate a few times a day.

The frequency of regurgitation gradually decreases in infants, so that by age 12-15 months, only about 5% of infants continue to regurgitate. Ongoing regurgitation past the age of 18-24 months is considered abnormal.

In other words, in the large majority of infants, GOR is a normal occurrence that they will outgrow with time, the introduction of solid foods, and assuming the upright position, i.e., walking. Such infants are almost always happy even after regurgitating.

Many infants cry excessively and/or appear to be in discomfort, with their backs arched, and as they may also be regurgitating, it is often assumed by parents or health care providers that the discomfort or unexplained crying is due to the regurgitation.

However, the symptoms or signs of apparent discomfort in infants are not specific to GORD. There are other conditions that are **more common causes** than GORD of discomfort or crying such as:



- constipation
- gassiness
- infection
- 'colic'. 'Colic' or excessive unexplained crying may be due to difficulty 'changing state' - in other words, once some infants start crying for any reason, their immature nervous system makes it hard for them to calm. Colic usually resolves by 3-5 months of age.
- exposure to tobacco smoke
- a sensitivity to the protein in cow's milk formula, or cow or soy milk protein antigens coming through in breast milk. A trial of removal of these antigens for a few weeks or months often relieves the infant's symptoms of unexplained crying. However, it is important to note that almost all infants outgrow this sensitivity by about a year of age. Most infants will not require, and should not have exclusion of dairy products long-term, since dairy is the best source of easily-absorbed calcium, vitamin D and protein for infants, children and adolescents.

In other words, the presence of some regurgitation, and irritability, does not usually mean the regurgitation is causing the crying, or that it is a long-term problem, i.e., that GORD is present. Of all infants who regurgitate, relatively few develop GORD in infancy.

What can you do?

Firstly if you have any concerns or worries you should always speak with your doctor as soon as possible. **If your infant has any of the following 'red flag' or warning signs, you should seek medical attention promptly:**

'Red-flag' or warning signs for which you should seek medical attention

- Vomiting bile (green material)
- Repeated projectile (forceful) vomiting
- Crying that does not stop
- Vomiting blood
- Abdominal distension
- Severe constipation
- Stools that are bloody or jet-black
- Persistent refusal of feeds
- Lethargy
- Fever

- Weight loss, or poor weight gain
- Excessive crying or irritability during or after feeding or regurgitation
- Vomiting old food, i.e., several hours after feeding
- Choking or blue spells
- New onset of vomiting after 6 months of age

HOW CAN YOU HELP TO ALLEVIATE SYMPTOMS?

In an infant with repeated regurgitation that is distressing to them or you, assuming no 'red-flag' or warning signs are present, some of the following may help, recognising that an improvement may take 2-3 weeks to occur.

- Avoid exposure to smoke (tobacco/other): this causes irritability
- Avoid over-feeding
 - Ask your medical professional about appropriate sized bottles or nursing routines
- Burp (wind) your baby frequently before, during and after feeding
- Keep your baby upright after feeds for at least 30 minutes
- Avoid the use of car seats immediately after feeding
- Avoid clothing or nappies that are tight around the abdomen
- Where possible try not to lay your infant flat - a 30-degree angle above horizontal is recommended.
 - Raise the mattress or head of the cot
 - Place a cushion under your infant's head when changing nappies

What your doctor may advise

- Thickened feeds
- A trial of hypoallergenic formula
- Further tests
- Referral to a paediatrician or a paediatric gastroenterologist
- Treatment with medication

