

# Gastro-oesophageal reflux disease (GORD) in infants

Gastro-oesophageal reflux disease (GORD) is a condition that can occur in adults or children; however it is a very common condition in infants. The main reason for GORD in infants is the child's immature digestive system and the reflux associated with GORD normally resolves without treatment as the child's digestive system develops. In adults, it is commonly described as "heartburn" or "acid regurgitation". More detailed information on GORD in adults is available on the Whelehans pharmacy website ([www.whelehans.ie](http://www.whelehans.ie)). Alternatively, ask a Whelehan's staff member for detailed information sheet and advice on the subject. All health advice in Whelehans Pharmacy is free of charge and you never have to make in appointment.

## How common is GORD in infants?

The most obvious symptoms of reflux in infants is vomiting or regurgitation. All healthy infants have a tendency for GORD and it is natural for an infant to have a certain amount of regurgitation after feeding. The issue is whether GORD is causing a problem in your infant rather than whether GORD is occurring at all. Reflux is most common between one to four months and approximately 67% of infants have more than 1 daily episode of regurgitation at four months. Between the ages of 6 to 7 months, symptoms of reflux decreases from 61% down to 21%. At 12 months of age only 5% have symptoms

By 12-18 months, most cases of GORD will resolve as the sphincter (valve between oesophagus and stomach) matures, the infant adopts an upright posture and begins having a more solid diet.

## Symptoms of reflux

Reflux causes frequent or recurring vomiting. This is not the small mouthfuls of vomit seen in all infants, but the vomiting of large amounts of vomit. This can happen straight after a feed or right up until the next feed. When the infants oesophagus becomes sore from exposure to the regurgitated acid (the equivalent of heartburn) this leads to irritability, pain and poor feeding. If GORD is severe, the infant may have difficulty gaining weight.

Other common symptoms of reflux include;

- Sometimes screaming suddenly when asleep. Infants can be inconsolable especially when laid down flat
- Poor sleep habits typically with arching their necks and back during or after feeding
- Frequent burping or frequent hiccups
- Swallowing problems
- Frequent ear infections or sinus congestion
- Infants are often very windy and extremely difficult to burp after feeds, failure to wind them successfully usually means reflux and vomiting is worsening
- Refusing feeds or frequent feeds for comfort
- Night time coughing
- Sometimes reflux can happen so quickly that it leads to the infant inhaling vomit, leading to respiratory problems such as asthma, bronchitis and even chest infections.

## **When to see a doctor?**

It is very rare for reflux to lead to serious complications. But some infants do have problems and you should see your doctor if your infant vomits severely or has any of the following symptoms:

- blood or bile (bile is a yellow fluid) in their vomit
- difficulty in swallowing or is choking easily
- a fever
- is irritable, crying and hard to settle
- listlessness, dark circles under the eyes, refusal to feed and dry nappies
- breathing problems that could lead to apnoea (the infant may temporarily stop breathing)
- is losing weight or not gaining weight as you think they should

## **Treatment**

Avoid overfeeding and try increasing frequency and decreasing volume of feeds. The infant should be supported in an upright position whilst feeding and for at least 45 minutes after feeding to bring up wind. The infant should be handled very gently after feeding and during winding; avoid vigorous patting or rocking.

GORD tends to be worse when lying flat and therefore a gentle raise of the head of an infant's cot can be useful, so that the infant's head is higher than the rest of their body while they sleep. This may make it more difficult for food to get up the oesophagus from the stomach. This can be done by putting a pillow or folded blanket under the mattress to create a gentle up slope. Never attempt to let your infant sleep directly on a pillow which could be dangerous.

### **Products to add to your infant's food**

By thickening your infant's food, an infant is less likely to bring it back up. There are products to thicken an infant's milk, for example, Instant Carobel<sup>®</sup>. There are also ready-thickened feeds such as Enfamil AR<sup>®</sup> or SMA Staydown<sup>®</sup>. These are available on prescription from a GP or from your local pharmacy. Enfamil AR powder is used as an infant milk, follow the instructions on the side of the container. As this product is a pre-thickened infant milk you may need to switch to a faster flow teat (more holes) to help your infant or child suck it.

If you're breastfeeding and your infant is having problems with bringing up food, your doctor or pharmacist may suggest Gaviscon<sup>®</sup> Infant sachets instead of the above mentioned products.

Infants are less likely to bring up food if they have sodium alginate (Gaviscon<sup>®</sup> Infant) mixed with their feed or dissolved in water after their meal. Sodium alginate works in three ways; it thickens the milk making it easier for the infant to cope with, coats the oesophagus all the way down to the stomach and in the stomach it forms a raft over the stomach contents, helping to stop the contents of the stomach from escaping back up the oesophagus. Dosage depends on the weight of the infant. Gaviscon<sup>®</sup> Infant sachet(s) can be mixed with cool boiled water, milk feed or expressed breast milk. Gaviscon<sup>®</sup> Infant sachet(s) should not be administered more than six times in 24 hours.

Gaviscon<sup>®</sup> Infant should not be given to premature infants, young children who are ill with a high temperature, diarrhoea, vomiting, or if you are already using a food thickener. If your child is under 12 months old, talk to your doctor before using this treatment.

## **Medicines**

Anti-reflux medicines reduce the severity of the reflux by improving the downward movement (i.e. motility) of the oesophagus and stomach. They may also reduce acidity so that the reflux is less damaging to the oesophageal lining. They are generally only used if other treatment options like thickeners do not work.

Motilium<sup>®</sup> (Domperidone) helps tighten the valve (called the sphincter) at the end of the oesophagus where it joins the stomach. This will help stop food from flowing back into the oesophagus. It comes in liquid or rectal (suppository form) form for infants and children but is only available with a doctor's prescription. Directions: By mouth; over one month and body weight up to 35kg, 250 – 500mcg/kg three to four times a day, body weight 35kg and over 10 – 20mg three to four times daily, max. 80mg daily. By rectum; body weight over 15kg one 30mg Motilium<sup>®</sup> Suppository twice a day, body weight over 35kg 60mg twice daily. Some young children taking Motilium<sup>®</sup> may get mild diarrhoea.

H2 blockers reduce the amount of acid in the stomach. Zantac<sup>®</sup> is a popular brand of the drug ranitidine which is a type of H2 antagonist. Directions: New born infant under 4 weeks, 2mg/kg three times daily, max. 3mg/kg three times daily. One to six months; 1mg/kg three times daily max. 3mg/kg three times daily. Child months to 3 years, 2-4mg/kg twice daily.

Losec<sup>®</sup> MUPS (omeprazole) is a popular brand of proton pump inhibitor. A proton pump inhibitor reduces the acidity of the stomach's contents and is more potent than H2 antagonists like Zantac<sup>®</sup>. The dose for infants and young children is based on body weight and the doctor will decide the correct dose. Directions: New born infant under 4 weeks, 700mcg/kg once daily, increased if necessary after 7 – 14 days to 1.4mg/kg once daily. Child 1 month to 2 years, 700mcg/kg once daily, increased if necessary to 3mg/kg max. 20mg once daily.

Dosage range for Losec<sup>®</sup> by weight:

Childs body weight 10-20 kg: 10 mg once daily (max 20 mg/day)

Childs body weight over 20 kg: 20 mg once daily (max 40 mg/day)

## **Surgery**

Surgery is required in a minority of infants with severe GORD who do not respond to treatment but surgery is not always successful. Sometimes medication needs to be continued after surgery.

## **What will happen?**

If your infant shows symptoms described above but is otherwise happy and thriving then some simple lifestyle modifications will probably make life better until they outgrow it. 85% of infants will stop bringing up their food by the time they are 18 months old and 95% by the age of 2. Symptoms tend to improve with age and often get better when the infant is able to wean on to more solid foods. Your child is only likely to need treatment if they are not growing properly, or have other problems.

## **Infant and child online support group**

“Living with Reflux” is a charity based in the UK which has been set up by fellow sufferers to support families with GORD and other associated conditions. Their website is [www.livingwithreflux.org](http://www.livingwithreflux.org). Further information can be found here along with a community forum. It is a good resource for parents worried about this condition and can be accessed by Irish parents.

## **References**

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4. Motilium<sup>®</sup> (Domperidone oral suspension 1mg/ml / suppositories); Summary of product characterisation April 19, 2011.
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6. Clinical practice guidelines. The Royal Young Children's Hospital Melbourne, GORD in young children, May 2012.
7. Liburd J, Hebra A; GORD. eMedicine, May 2009; Paediatric Article.

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