Childhood Gastro-oesophageal Reflux

Gastro-oesophageal reflux is very common in babies and young children. Regurgitation of a small quantity of milk after a feed without any other symptoms (possetting) is harmless in young infants and doesn't need any investigations or treatment.

Reflux may be more severe and associated with other symptoms. This condition is usually diagnosed without needing any tests but some babies with more troublesome symptoms may be referred for further investigations. There are various treatments available including feed thickeners, anti-regurgitant milks, Gaviscon® and various medications. However, for the majority of cases, gastro-oesophageal reflux is a self-limiting condition and, with time, improves without any complications.

Who gets reflux?

Gastro-oesophageal reflux is extremely common. Regurgitation of a small quantity of milk after a feed without any other symptoms (possetting) is harmless in young infants. Around one in two babies in the UK have regurgitation. This occurs when some of their feed effortlessly returns into their mouth from their stomachs. This is most commonly caused by reflux.

It occurs because the muscle at the lower end of the food pipe (oesophagus) is too relaxed. So, some of the contents of the stomach pass up into the oesophagus, leading to regurgitation or being sick (vomiting). As the contents of the stomach are acidic this can irritate the lining of the oesophagus. When gastro-oesophageal reflux is associated with troublesome symptoms (such as poor weight gain, unexplained crying or distressed behaviour) it is known as gastro-oesophageal reflux disease (GORD).

Gastro-oesophageal reflux is more common in babies who are born prematurely and also in those who have a very low birth weight. It is also more common in babies or children who have some impairment of their muscles and nerves (for example, those with cerebral palsy) or those with cow's milk allergy.

Reflux occurs both in breast-fed and in bottle-fed babies.

What are the symptoms of reflux?

Many babies and children have some gastro-oesophageal reflux which leads to being sick (vomiting) or regurgitation of some of their feeds. This is not always associated with other symptoms.

Other symptoms of gastro-oesophageal reflux can include symptoms that are similar to baby colic. These may be uncontrolled crying, drawing the legs up towards the tummy and pain in the tummy after feeding. Some older babies may refuse feeds, as they associate feeds with pain on swallowing. More uncommonly some babies or children have some blood in their stools (faeces) or their vomit.

Older children with reflux may complain of heartburn and a foul-tasting, watery fluid intermittently coming into their mouth.

Some babies with GORD have poor weight gain and can be more unsettled than normal. Occasionally, babies may wheeze as a result of more severe reflux.
How is the diagnosis of reflux made?

For most babies and children, further tests are not needed as your doctor will be able to make the diagnosis by talking to you and examining your baby or child. You may be asked to keep a diary of the amount of fluid and food your baby or child is taking and also how often they are bringing up food.

Your doctor may refer your baby or child for further tests if they are having more severe symptoms. These may include:

- **pH monitoring of the food pipe (oesophagus).** This involves inserting a very small probe down into the oesophagus to measure the amount of acid in the oesophagus.
- **Endoscopy.** This involves a small tube with a camera at the end being inserted into the oesophagus to look for any inflammation of the lining of the oesophagus and/or the stomach.
- **Barium swallow.** This involves having a drink of barium followed by an X-ray. This test is not often performed nowadays.

What treatments for reflux are there without using medicines?

Regurgitation of a small quantity of milk after a feed without any other symptoms (possetting) is harmless in young infants and does not need any investigations or treatment.

Many babies or children with reflux who are otherwise well do not need any specific treatment, as this condition improves with time without any treatment. Your baby's (or child's) weight will be monitored closely to ensure they are growing well and putting on weight appropriately.

It may help to raise the head end of the cot slightly but your baby must be left on their back when asleep.

It can sometimes be beneficial to try increasing the frequency of feeds and also reducing the volume of each feed.

Some babies have symptoms of reflux due to a **cow's milk allergy.** If cow's milk is eliminated from their diet then their sickness (vomiting) will reduce substantially over a two-week period. If cow's milk is eliminated but your baby's (or child's) vomiting remains the same, it is extremely unlikely that your baby (or child) has cow's milk allergy. If you are breast-feeding then this means excluding cow's milk from your diet.

Thickening feeds. There are different products available which work to thicken your baby's feeds. Examples of these include Nestargel® and Carobel® which thicken milk. You should talk to your doctor before using these products. You may have to make the hole of the teat larger if you use these products.

Anti-regurgitant formula milks are available - for example, Enfamil AR® and SMA Staydown®. These can be prescribed by your doctor if your baby has more severe gastro-oesophageal reflux. These should not be given for more than six months and should not be given with any other feed thickener or antacids.

Gaviscon® (sodium alginate) works by making the contents of the stomach thicker so they are then more likely to stay in the stomach. It also forms a protective coating over the lower part of the food pipe (oesophagus). In doing so, any stomach contents that rise up into the oesophagus are less likely to irritate the oesophagus and cause symptoms.

Gaviscon® is a powder which is mixed either with your baby's milk or, for breast-fed babies, with water. It can be given up to six times each 24 hours. You should not give this if you are already using a food thickener.

What medications are available to treat reflux?

The vast majority of children do not need any treatment with medicines for their reflux. There is no actual research which proves that medication really works for babies with reflux.
H2 blockers (eg, ranitidine) and proton pump inhibitors (eg, omeprazole) are medicines that work by reducing the actual amount of acid produced in the stomach. These are usually initially prescribed by a specialist and then subsequent prescriptions can be obtained from your GP.

What is the outlook (prognosis)?

As mentioned before, reflux is a self-limiting condition for the vast majority of babies and infants. It usually improves completely by the age of 18 months, even without any treatment.

Further reading & references

- Gastro-oesophageal reflux disease - recognition diagnosis and management in children and young people; NICE Clinical Guidance (Jan 2015)

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