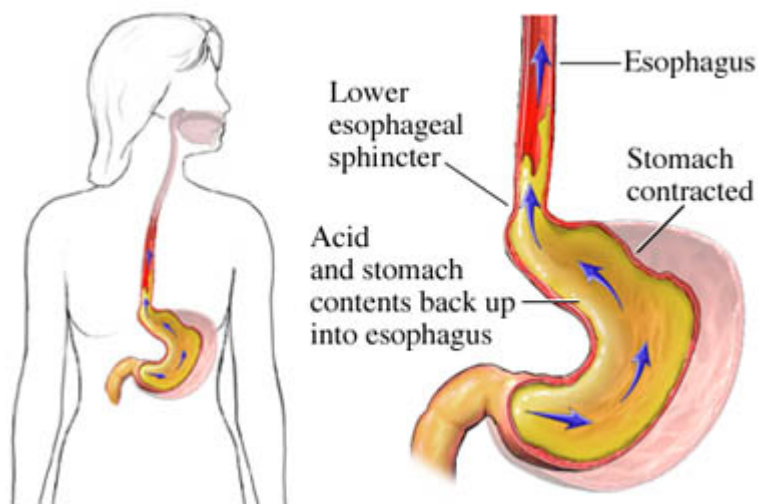


GASTRO-OESOPHAGEAL REFLUX (GOR)

What is Gastro-Oesophageal Reflux?

Gastro-Oesophageal Reflux (GOR) is a condition where acid from the stomach flows back up the oesophagus (gullet). There is a sphincter (valve mechanism) where the stomach and gullet join. In reflux this valve doesn't work properly; but when you get reflux, the irritation caused by acid in the gullet actually makes the valve work even less well. In this way there is a tendency for the problem to keep itself going for sometime.



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Is it common?

The exact frequency of GOR in children is unknown. In some groups of children (e.g. with asthma or cystic fibrosis; those with cerebral palsy, those born preterm) it is known to be quite common.

What causes it?

In little children some GOR is normal – all babies have spills (possetts) after feeding, which can be thought of as mild GOR. In some children GOR continues as they get to be toddlers. In children, the exact cause is unknown. In adults, GOR is associated with excess consumption of coffee, smoking, fatty foods and/or chocolate. These are unlikely factors in children developing GOR. It is known that GOR is more common in children with other pre-existing conditions. These include children with cerebral palsy/ motor developmental delay; children with cystic fibrosis; some children with asthma symptoms; children with degenerative neurological conditions [e.g. muscular dystrophies]; children with congenital oesophageal disorders [e.g. tracheo-oesophageal fistula].

How can it affect my child's chest?

GOR is thought to cause a wide range of respiratory symptoms. These include snoring, croup, hoarse voice, and apnoea [periods of stopping breathing], asthma, chronic cough, recurrent pneumonia or bronchitis, bronchiectasis, bronchiolitis obliterans, and pulmonary fibrosis.

In some children it is thought that just by acid flowing into the oesophagus, it can cause airway narrowing, and asthma-like symptoms. In others the acid may flow all the way up to the voice box, and then spill over into the trachea and down into the lungs.

How is it diagnosed?

There are two tests which may help to confirm GOR, although neither one is foolproof, and are known to overlook some cases of it. A barium swallow (Ba study) is a special xray where dye is drunk, and xrays are taken at intervals to see if the dye flows back up the oesophagus. The other test is a "pH probe". This needs a small tube to be passed down the nose and positioned so the end is just above the point where the gullet meets the stomach. This probe is then attached to a recorder that is worn in a holster over the shoulder. The probe stays in position for 18-24 hours and is removed the following day. The recording is then transferred to computer which calculates the length of time there was acid in the gullet.

Given that neither test is 100% reliable at detecting GOR, some doctors would recommend a trial of treatment based on the history alone. This can be thought of as another a test for GOR. If the child's symptoms get better on the GOR treatment, then it is very likely that GOR was the cause of the problems.

How is it treated?

There is no single, treatment for GOR, which works well. A variety of drugs can help, and they act in different ways to control the GOR.

1. Gaviscon: this forms a sludge on top of the acid in the stomach, and so make sit more difficult for the acid to flows up into the gullet. It also coats the gullet and reduces any inflammation there, which may also interfere with how well the valve mechanism works.
2. Antacids: these are drugs which reduce the amount of acid put out by the stomach. There include omeprazole, and ranitidine. They help reflux by making what flows up the gullet less acidic, and so less irritating to the gullet, or lungs.
3. Prokinetic Agents: these are drugs which are thought to encourage the stomach to empty into the small intestines quicker. In this way large amounts of stomach acid don't "hang around" in the stomach, and increase the risk of flowing up into the gullet. They include domperidone, and erythromycin (which is usually used as an antibiotic, but can speed up gut emptying).

It can take up to 3 months to see any benefit to chest symptoms from treating GOR. Some doctors start with one drug and if things are no better add in a second and then a third as needed. Others start with all three, and if the symptoms are controlled then remove one drug at a time. Your Respiratory specialist will discuss with you their preferred way of doing this.

If the medicine doesn't work, but the feeling is that GOR is an important element in your child's symptoms, then surgery may be necessary. Unfortunately, this isn't a guaranteed cure either, and so is only likely to be suggested if all else has failed and your child's symptoms get worse. If this was the case, your Respiratory specialist may well ask for a second opinion from a gastroenterologist before embarking on surgery.

What can happen if my child's GOR is not treated?

GOR can cause a range of symptoms (see above). The progression of the symptoms is also across a range. At the mildest end (for the majority of children with GOR) it can settle spontaneously, and the symptoms go away. If your child has chest symptoms caused by GOR it is quite likely that your paediatrician will want to treat this, since rarely GOR can cause lung damage. It can be very difficult to predict which children with GOR will develop the more serious complications, and so your chest specialist will prefer (if possible) to stop the GOR before it has chance to do any more damage.



How do I know if my child has damaged lungs?

Your Paediatrician will be able to assess your child for signs of lung damage. If they are concerned they may ask for further tests. The extent of any damage also influences how much treatment will be recommended for your child.

This sheet is to provide information on GOR, and is not intended to replace discussion of GOR with your child's Respiratory Physician. Please feel free to ask the team about anything in relation to GOR.