Gastric transposition

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When all efforts to salvage the oesophagus have failed, a replacement procedure will be required. My preference of choice is the total gastric transposition – sometimes referred to as a ‘stomach pull-up’. This is generally carried out at around 6 months of age, but can be performed in the new born period or anytime thereafter.

Why use the stomach?
The advantages of using the stomach to replace the oesophagus are firstly, the blood supply to the stomach is excellent and the risk of complications developing at the anastomosis (join) with the oesophagus is low; secondly, the procedure involves a single anastomosis thereby reducing the risk of leakage; and, thirdly, it is a relatively straightforward operation the technical details of which can be easily acquired.

Surgery
Gastric transposition involves freeing up the stomach of all its attachments in the abdomen and re-routing it through the inside of the chest into the neck where it is joined to the upper oesophagus (gullet). This involves a minimum of two incisions – one, in the upper abdomen and the second, in the neck where the anastomosis is performed. When the child has had previous surgery in the chest (such as closure of the TOF and/or correction of cardiac defects) it may be necessary to open the chest through one of the previous scars in order to create the passage, in which the stomach will lie, from the abdomen to the neck under direct vision. Sometimes – though rarely – rib cage defects can occur as a result of these entries into the chest.

At the end of the procedure, the previous gastrostomy is substituted with a tube into the small bowel (jejunal feeding tube) to supply food into the intestine in the postoperative period until the child learns to swallow well.

After surgery
Immediately after the operation the child will need to be nursed in the intensive care unit where he/she will be heavily sedated and be attached to a mechanical ventilator (breathing machine). This is usually necessary for a minimum of 48 hours, but it is not unusual for the period to extend to 5-7 days.

An X-ray study to exclude a leak at the anastomosis is then performed and if all is well the child is encouraged to take fluids by mouth. This study will involve the use of contrast mediums which highlight the gastro-intestinal tract on X-ray film.

The child will usually have to remain in hospital for a minimum of 7-10 days.

Feeding
It may take quite a long time before the child is able to sustain his or herself fully by mouth – a lot depends on previous sham feeding, persistence and encouragement by the nurses and parents after the operation.

In the early years the child will take small amounts of food often. However, in the long-term most patients will be able to enjoy normal-sized meal at the usual times.