

Transposition of the Great Arteries in children

Information for parents and carers



leeds children's
hospital

caring about children

This leaflet provides information for parents and carers about Transposition of the Great Arteries in children and the management and treatment of this condition.

This is a serious heart condition in which the main artery which should arise from the right side of the heart comes from the left side, and the artery which should arise from the left side of the heart comes from the right side.

In the normal circulation blue blood, in which the oxygen has been used up by the body, drains to the right side of the heart which pumps the blood to the lungs. In the lungs oxygen is collected, making the blood pink (or "oxygenated"). The pink blood is then returned to the left side of the heart which pumps the pink blood to the body.

In a baby with Transposition of the Great Arteries the blue blood gets pumped back to the body instead of to the lungs, the baby appears blue shortly after birth and may die quickly without treatment.

Image of a normal heart

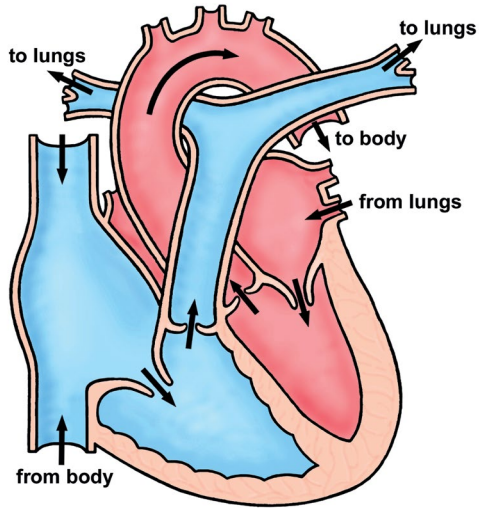
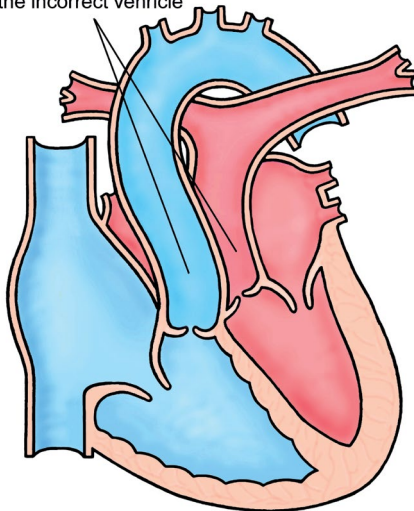


Image of a heart with Transposition of Great Arteries

The great arteries arise from the incorrect ventricle



Here is a video that explains the condition

**Transposition of the Great Arteries
- YouTube**

<https://www.youtube.com/watch?v=cPk7LUbc30I>



Tests

Usually an ultrasound scan (“echocardiogram”) is required to make the diagnosis.

Treatment

The first stage of treatment is to keep the baby alive by increasing the amount of oxygenated blood which gets to the body. Medicines can help to some extent and most babies will be given a drug called dinoprostone, as an injection into one of the veins. Almost all babies with Transposition of the Great Arteries will also need a procedure called a “balloon septostomy” to make sure they get enough oxygen to their body to survive. This involves putting a tube with a small balloon at its tip into the vein at the top of the leg or in the umbilicus. The tube is passed up into the heart and across the flap of heart tissue which separates the two small filling chambers, using an ultrasound scan to see it is in the correct position. The balloon is then inflated and the catheter is pulled back across the flap, tearing a hole in it and allowing oxygenated blood to cross from the left side of the heart to the right side.

Once the baby is safe, we can plan the baby's operation to "switch" the arteries. The switch is usually done within the first two weeks after birth. Most babies are well enough to go home 5-7 days after the operation. Prior to surgery, the surgeon will discuss the operation in more detail including the risk and potential complications.

Complications can sometimes occur late, even many years after a successful switch operation, and it is important to have occasional but regular visits to the outpatient clinic to make sure all is well as the baby grows and even throughout adult life too.

Late problems which can arise include narrowing of the arteries leading to the lungs (the pulmonary arteries), leaking heart valves (most commonly the aortic valve), and narrowing of the small arteries (the coronary arteries) which feed blood to the heart muscle. These complications are all rare but can be serious enough to need further surgery or keyhole treatment.

General advice for the future

Most children lead a normal active life after a switch operation, including sports. If there are any particularly strenuous activities to be avoided your cardiologist will let you know.

All patients who have had a switch operation will be at risk of infection in the heart (called endocarditis) after surgery. Such infections may be caused by infections of the teeth or gums. It is important to visit the dentist regularly (every 6-12 months). Ear or body piercing and tattooing are best avoided as they also carry a small risk of infection which may spread to the heart.

For more information about endocarditis please see the link below:

**Infective endocarditis ... what to do to avoid it -
Leeds Teaching Hospitals NHS Trust (leedsth.nhs.uk)**

**[https://www.leedsth.nhs.uk/patients/
resources/infective-endocarditis-
what-to-do-to-avoid-it/](https://www.leedsth.nhs.uk/patients/resources/infective-endocarditis-what-to-do-to-avoid-it/)**



Contact us

Please contact the Paediatric Cardiac Nurse Specialists on:

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What did you think of your care?

Scan the QR code or visit bit.ly/nhsleedsfft

Your views matter



© The Leeds Teaching Hospitals NHS Trust • 1st edition (Ver 1.0)
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Produced by: Medical Illustration Services MID code: 20241017_010/MH

LN005931
Publication date
11/2024
Review date
11/2027