

Will PDA come back?

No. Once the baby has recovered from the problems of prematurity and the PDA has gone away, it will not come back later in life.

If you have any further questions please ask your baby's nurse or the medical team, as we are here to help.

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Please contact the Patient Advice and Liaison Service (PALS) if you require this leaflet in a different format, or would like to feedback your experience of the hospital.

Email ruh-tr.pals@nhs.net or telephone 01225 825656 / 826319

Patent Ductus Arteriosus (PDA) in premature babies

Dyson Centre for Neonatal Care

Patent Ductus Arteriosus (PDA)

The ductus arteriosus (DA) is a normal blood vessel that connects the pulmonary artery (main vessel supplying the blood to the lungs) to the aorta (main vessel supplying the blood to the body).

This connection is present in **all** babies in the womb, but should close shortly after birth. In some babies, especially in those born prematurely, this vessel may remain open. This is called a patent or persistent ductus arteriosus.

What causes a baby to have a ductus arteriosus?

In the womb, the mother's placenta provides oxygen for the baby and the ductus arteriosus allows blood to bypass the lungs. After birth, the baby must use their lungs to take in oxygen and get rid of carbon dioxide. To achieve this, the blood flows to the lungs and the ductus arteriosus closes. However in some babies, especially premature or very sick babies, it can remain open or even re-open.

How does it affect the heart?

In a baby with PDA, extra blood will be pumped from the aorta into the lung arteries. This can cause fluid to build up in the lungs (pulmonary congestion) and may make it hard for the baby to breathe. The heart also has to work harder. Babies may have trouble feeding and growing at a normal rate.

If the PDA is small, it won't cause symptoms because the heart and lungs don't have to work harder. The only abnormal finding may be a distinctive type of heart murmur (noise heard with a stethoscope).

How doctors will know your baby has PDA

A baby with a PDA may have one or more of these symptoms:

- a heart murmur
- a persistently increased heart rate and breathing rate
- slow to gain weight
- difficulty weaning from the CPAP machine

When a baby is thought to have a PDA an ultrasound scan (echocardiogram) of the heart is performed by a doctor who has special interest in the heart called a cardiologist.

What can be done about the PDA?

- **Active monitoring** - If the PDA is small, it doesn't usually make the heart and lungs work harder, so it has a minimal effect on baby's health. In this case the medical team are likely to just 'watch and wait'. Small PDAs often close naturally within the first few months of life.
- **Medical treatment** - With a larger PDA the heart has to work harder to pump blood around the body. These babies often need smaller feeds but with more calories. They are given diuretics (water) medicines to help the kidneys remove extra fluid from the body.
- **Surgical closure** - In a very rare situation when medical treatment is not effective and the PDA continues to cause significant problems, the baby will need to undergo surgery. The 'tie-off' or ligation operation would be performed at Bristol Children's Hospital. In older and bigger babies the surgery could be performed using a keyhole procedure. A small coil is used to block off the PDA.