

Patent Ductus Arteriosus (PDA)

Patent ductus arteriosus (PDA) is a blood vessel in unborn babies that connects the aorta and the pulmonary artery. Before birth, PDA lets blood skip the lungs and go to the body because the baby gets oxygen from the mother. After birth, babies start to breathe, and the PDA usually closes in the first two days.

If the PDA stays open, blood from the aorta mixes with blood in the pulmonary artery. This sends too much blood to the lungs, making the heart work harder and raising blood pressure in the lungs. In most babies, the PDA will shrink and go away on its own in the first few days of life. Some PDAs that don't close right away may often close on their own within a year.

Doctors don't know why it won't close for some babies. It may run in families, so genes could be a factor. It is more common in:

- Premature babies
- Babies with neonatal respiratory distress syndrome
- Babies with genetic disorders like Down syndrome
- Babies with other heart conditions

Symptoms

Babies with a small PDA might not have any signs or symptoms, but a doctor could hear a heart murmur during a checkup. If the PDA is large, babies may show symptoms like:

- Breathing fast
- Having trouble eating
- Sweating when eating
- Getting tired easily
- Not gaining weight

Testing

To find out if your baby has a PDA the doctor will check for a heart murmur. Other tests might include:

- A chest x-ray
- An ECG (a test that measures the heart's electrical activity)
- An echocardiogram (heart ultrasound)

Treatment

Premature babies with lung problems are more likely to have a PDA that does not close on its own. If this happens, your child's doctor may recommend treatment to close the PDA. There are a few treatment options:

- **Medicine:** The doctor might give medicine to help close the PDA.
- **Heart catheterization:** The doctor may use a thin tube, called a catheter, to close the PDA without surgery.
- **Surgery:** Surgery is usually only needed if the PDA is large and could cause too much blood to flow to the lungs. If the PDA is not treated, it could make the heart become too large or lead to heart failure.