

Patent Ductus Arteriosus (PDA)

What is a PDA?

A PDA is a normal blood vessel in all fetuses (babies growing in the womb). It connects two major arteries; the aorta and the pulmonary artery. A fetus does not use the lungs to breathe because it gets oxygen from the mother's placenta. The PDA reroutes blood away from the lungs, sending it right to the body. After a baby is born, it starts to breathe, no longer needs the PDA. It usually closes during the first 2 days after birth.

Sometimes, the PDA doesn't close. This causes oxygen-rich blood from the aorta to mix with oxygen-poor blood in the pulmonary artery. This causes too much blood flow into the lungs. This puts a strain on the heart and increases blood pressure in the pulmonary arteries.

What causes a PDA?

The cause is not known. Genetics might play a role.

PDA is more common in:

- Premature babies
- Babies with neonatal respiratory distress syndrome
- Babies with genetic disorders like Down Syndrome
- Babies with other heart conditions
- Girls (affects twice as many girls as boys)

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 at this time will often still close on their own by 1 year of age.

Premature babies with lung disease are much more likely to have the PDA stay open. When this happens, your child's doctor may talk to you about treatment to close the PDA.

How will I know if my baby has a PDA?

Babies with small PDAs may have no symptoms, but the doctor may hear a murmur during a checkup. Babies with a might also have these symptoms:

- Fast breathing
- Problems eating
- Sweating while eating
- Gets tired quickly
- Poor weight gain

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 (a test that uses sound waves to diagnose heart problems)

What is the treatment for a PDA?

- Medicine - if the baby is very young
- A heart catheterization
- Surgery – this is very rare. If a PDA is large enough that the lungs could become overloaded with blood, a child may need surgery. If not treated this could lead to an enlarged heart, or symptoms of heart failure.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 2/2023 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#7480.