

Understanding Patent Ductus Arteriosus



What is the ductus arteriosus?

Before birth, there is no need for a baby to breathe. The baby gets oxygen from the placenta. A small blood vessel in the baby's heart allows blood to bypass (skip) the lungs and go straight to the rest of the body. This blood vessel is called the **ductus arteriosus** [duck-tus ar-tear-ee-oh-sis].

At birth, a baby starts to breathe. Oxygen now comes from the baby's own lungs. The ductus arteriosus is no longer needed. It usually closes within days of birth.

What is PDA?

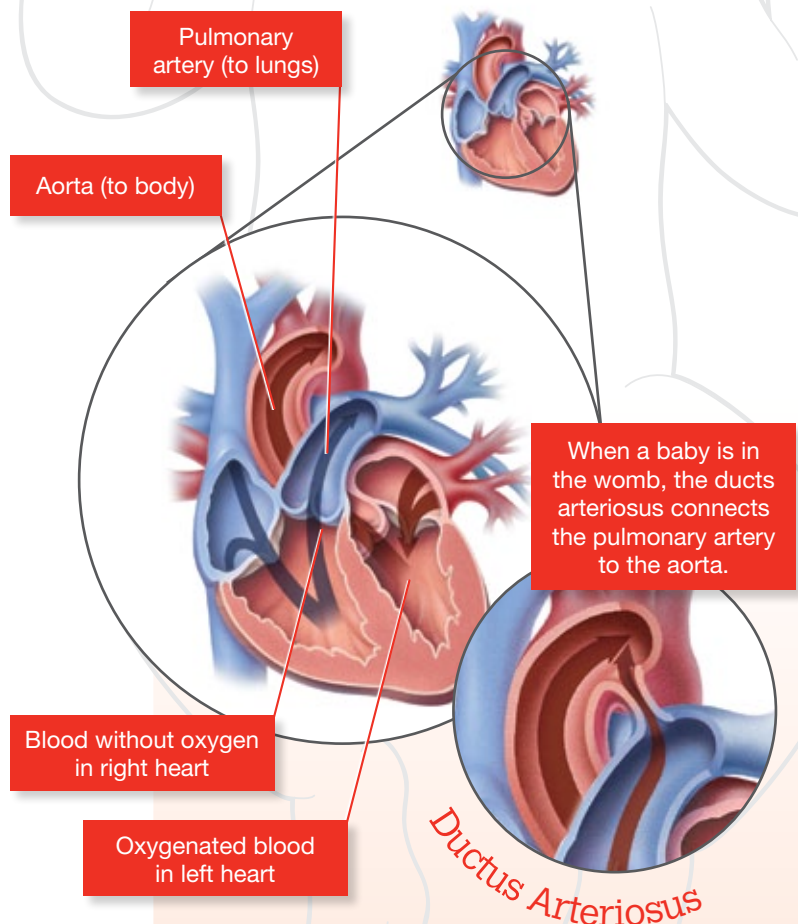
In some babies, the ductus arteriosus does not close soon after birth. This is called patent ductus arteriosus, or PDA. In the case of PDA, patent means open.

In some babies, PDA does not cause any problems. The size of the vessel is important.

- A small PDA only allows a little blood to pass through it. This may not cause any problems.
- Larger PDAs allow more blood to go back to the lungs instead of out to the rest of the body. This can increase blood pressure in the lungs. This also makes the baby's heart work harder.

How common is PDA?

PDA is more common in premature or low-birth-weight babies. Almost half of all babies weighing less than 1000g at birth will have this problem. Smaller babies are even more likely to have a PDA. It is also twice as common in girls as it is in boys.



Heart function

The pulmonary artery carries blood without oxygen from the right side of the heart to the lungs, where it picks up oxygen.

Blood with oxygen travels back to the left side of the heart. From here, it is pumped through the aorta to the rest of the body.

Treating Patent Ductus Arteriosus

What treatment will my baby receive?

- If the PDA is small and does not cause any problems, treatment may not be needed. Doctors will monitor the baby and wait for the PDA to close by itself
- If the PDA is causing blood pressure or breathing problems, treatment is needed. The goal of treatment is to close the ductus arteriosus

Medicine

- Doctors may try medicine first. The baby receives the medicine through an intravenous (IV) tube. The medicine works to tighten the PDA, which closes the opening

Surgery

- PDA may also be closed with stitches or a clip inserted by a surgeon. This procedure is usually done in a major surgical unit attached to a NICU. The baby will receive medicine so he or she will sleep and not feel any discomfort

What will happen next?

Once the PDA is closed, it usually does not cause any more problems. Each baby is different. Be sure to follow directions from the healthcare team. It is important to keep your baby's appointments after you leave the hospital.

Glossary

Ducts arteriosus

a small blood vessel that allows blood to bypass (skip) the lungs and go directly to the rest of the body

PDA (patent ductus arteriosus)

a heart problem in which the ductus arteriosus does not close soon after birth. This allows blood to go back to the lungs instead of out to the rest of the body

Ask the healthcare team when you have questions – they are there to help.

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