

Patent Ductus Arteriosus (PDA)

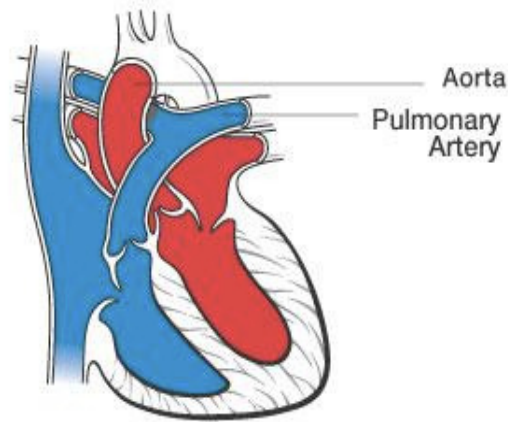
Every baby is born with a ductus arteriosus. This is an open passageway between the two major blood vessels (the pulmonary artery and the aorta). The pulmonary artery carries venous (blue) blood from the heart's right side to the lungs. Then it picks up a fresh supply of oxygen. The aorta carries the oxygen rich (red) blood from the left side of the heart to the rest of the body.

Normally the passageway (ductus arteriosus) between these two arteries closes within a few hours after birth. If it doesn't, some blood that should have gone through the aorta and on to nourish the body goes back to the lungs. Failure of the ductus to close is quite common in premature infants but fairly rare in full-term babies.

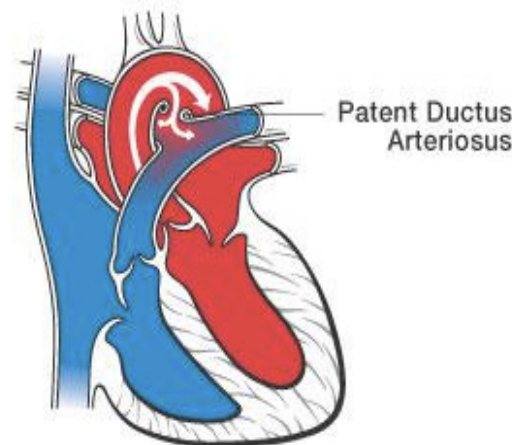
If the ductus arteriosus is large, a child may tire quickly, grow slowly, catch pneumonia easily and breathe rapidly. In some children, symptoms may not occur until after the first weeks or months of life. If the ductus arteriosus is small, the child seems well.

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Normal



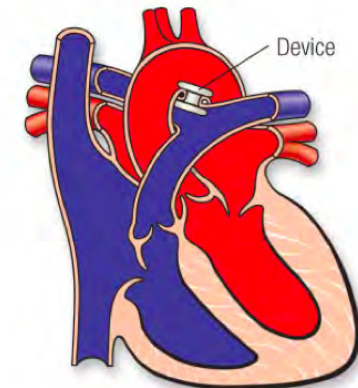
Defect



Repairing PDA

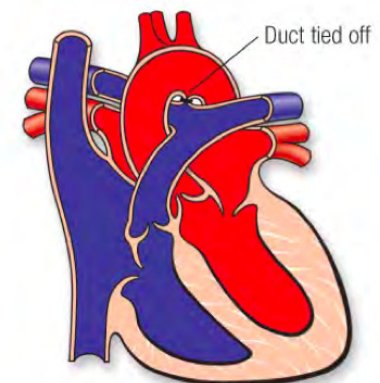
If treatment is needed, it is most commonly done with heart catheterization. The heart catheterization doctor can place a small coil or device to close off the ductus. The figure below shows one example of how a catheterization is used to close the ductus.

Closure by Device



If surgery is needed, an incision is made in the left side of the chest, between the ribs. The ductus is closed by tying it with suture (thread-like material) or by permanently placing a small metal clip around the ductus to squeeze it closed. If there's no other heart defect present, this restores the child's circulation to normal.

Closure by Tying Off



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