

Patent Ductus Arteriosus (Repair Procedures)

All babies are born with a small blood vessel (*ductus arteriosus*) that goes around the pathway to the lungs. This vessel usually closes in the first hours of life. When this vessel does not close, it is called a patent (open) ductus arteriosus (PDA). A PDA allows blood to flow from the pulmonary artery to the aorta which leads to extra pressure in the blood vessels in the lungs and puts a strain on the heart.

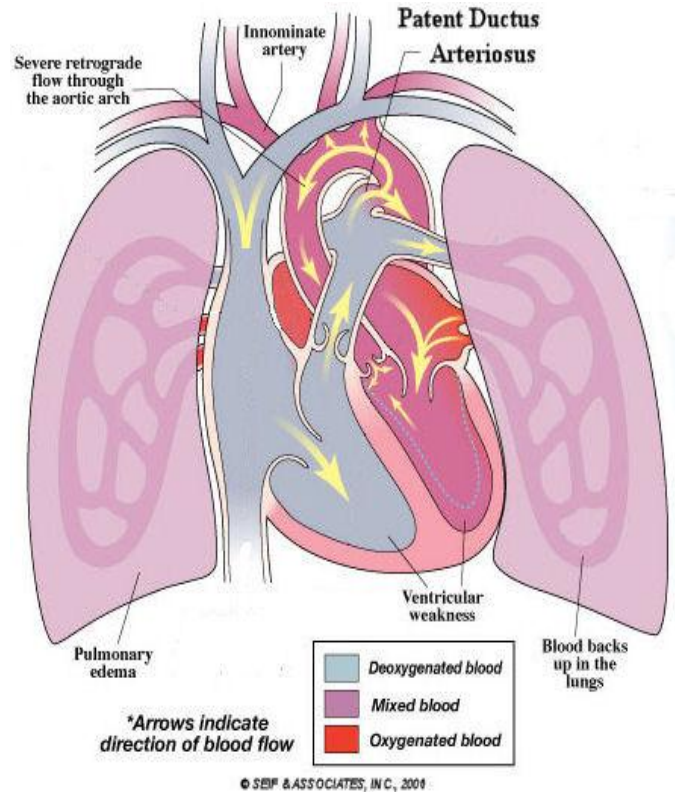
PDA causes a risk of a serious infection of the lining of the heart (*endocarditis*) and main arteries. A small PDA may not cause problems.

Medicines may be tried first to close the PDA. If they do not help, other procedures may be needed. Antibiotics may be given before the procedure to lessen the chance of endocarditis.

PROCEDURES:

There are 2 different procedures that can be used to close a PDA.

- **Transcatheter occlusion** is done through a long thin tube called a *transcatheter*.
 - A local anesthetic is used to numb the skin. A calming medicine may also be given.
 - A needle is put into a blood vessel, usually in the groin. The catheter is passed through the needle, then the PDA.
 - A tiny device called an occluder is passed through the catheter into the PDA and blocks it.
 - Tiny openings in the PDA may remain after the procedure. They heal as tissue grows over and around the device.
- **Surgery** is done in one of two ways:
 - Through a small cut (*incision*) in the left side of the chest. The PDA is tied off with a suture or a metal clip.
 - Through 4 small incisions, using special tools and tiny video cameras. Surgery is done without opening the heart.
 - Depending on the size of the PDA, one or two clips may be used to close it.
 - Surgery is done by giving medicine that puts the child to sleep (*general anesthesia*) so your child will have no discomfort.



RISKS & COMPLICATIONS OF THE PROCEDURES INCLUDE:

- Blood clots.
- Bleeding.
- Infection where the skin was cut or where the needle entered.
- Movement of the occluder after placement.
- Fluid in the lungs.
- The PDA does not close all the way or may re-open.

AFTER THE PROCEDURE:

- Your baby will be watched closely in the hospital for a few days.
- Follow-up testing may be done to check on the results of the procedure.

- Normal diet and activity may be resumed as directed.
- Antibiotics to prevent endocarditis may still be needed for a period of time.

Note: According to the American Heart Association, antibiotics are no longer needed before dental or other medical procedures.

SEEK IMMEDIATE MEDICAL CARE IF:

- Your child has a fever more than 101° F (38.3° C).
- There is pus, redness or bleeding from the sites.
- Your child has trouble breathing or cannot stop coughing.
- Your child is not getting better or you are concerned.

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