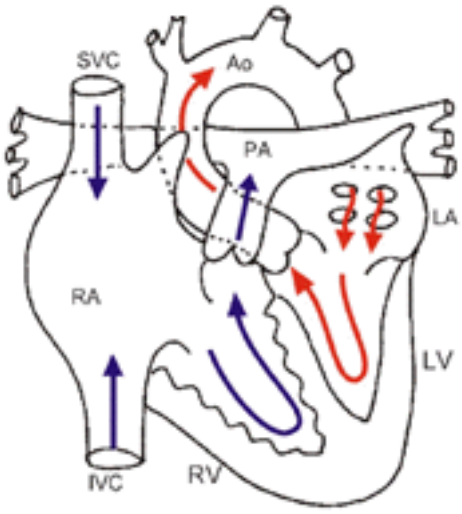
Truncus Arteriosus

Your baby has been diagnosed with truncus arteriosus. It is a heart problem that involves the two main blood vessels that carry blood away from the heart. It is a congenital defect, meaning your baby was born with it. The exact cause is not known.

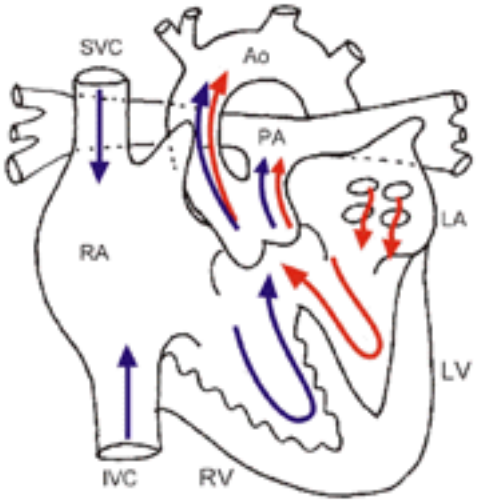
The normal heart

- The heart is divided into four chambers. These chambers work as pumps to move blood. The two upper chambers are called atria. The two lower chambers are called ventricles. The heart has four valves. The valves open and close to keep blood flowing forward through the heart. There is a wall called the septum that divides the right side from the left side.
- In a normal heart, oxygen-poor blood returning from the body fills the right atrium. This blood flows into the right ventricle. The right ventricle pumps this blood through the pulmonary artery to the lungs to get oxygen. Oxygen-rich blood returns from the lungs and fills the left atrium. This blood flows into the left ventricle. The left ventricle pumps this blood through the aorta to deliver oxygen to the body.

Normal Heart



Truncus Arteriosus



Pictures by Eliot May

What is truncus arteriosus?

With truncus arteriosus:

- The two major blood vessels are called the pulmonary artery and the aorta. Together, they are one artery called the truncal artery. If the valve at the opening of the truncal artery is not well formed, blood can flow backwards.
- There is also is an opening or hole (defect) in the septum between the heart's two ventricles. This is called a ventricular septal defect (VSD). This lets oxygen-poor and oxygen-rich blood mix. Because the blood that goes out to the body has less oxygen than normal, your baby's skin, lips and nails may look blue. This is called cyanosis.
- There may be problems with the size and location of the coronary arteries. These are the blood vessels that bring oxygen to the heart muscle.

Children's Hospital of Wisconsin • PO Box 1997 • Milwaukee, WI 53201-1997 • chw.org

What are the symptoms?

Symptoms are generally present shortly after birth. These can include:

- Blueness of the skin, lips, or nails.
- Trouble breathing.
- Trouble feeding.

How is it diagnosed?

- It may be detected with a fetal ultrasound before a baby is born. This test uses sound waves to form a picture of the baby's heart. This test can be done after the mother is 20 weeks pregnant.
- If it is not detected before birth, signs of a heart problem may be found during a physical exam shortly after birth.
- If a heart problem is suspected, your baby will be referred to a doctor who diagnoses and treats heart problems in children. This doctor is called a pediatric cardiologist. To confirm the diagnosis, several tests may be done.
  - **Chest X-ray.** This shows inside the chest, including the lungs and the heart.
  - **Electrocardiogram (EKG).** The EKG **r**ecords the heart's electrical activity.
  - **Echocardiogram (echo):** The echo looks at a moving picture of the heart.
  - **Pulse oximeter or oxygen saturation test.** Measures the oxygen level in the blood.

How is it treated?

- Truncus arteriosus is repaired with heart surgery. The surgery is done before your baby is 3 months old. It is often within the first month of life. The VSD will be closed. The arteries are repaired and rebuilt. A special tube (either a conduit or homograft) will be put in the heart to send oxygen-poor blood from the right ventricle to the lungs. As your baby gets bigger, surgeries will be needed to replace this tube.
- Your baby may need medicine to help the heart and lungs work better until the best time for surgery.
- After surgery your baby will taken to a critical care unit to be monitored. Your baby will be in the hospital for at least 10 to14 days.

What are the long term concerns?

- After repair of truncus arteriosus, most children can be active. The level and extent of physical activity vary for each child. Check with the cardiologist about which activities are OK for your child.
- Regular follow-up visits with the cardiologist are needed for the rest of your child's life.
- Your child may need to take antibiotics before having any surgery or dental work. This is to prevent infection of the inside lining of the heart and valves. This infection is called bacterial endocarditis. Antibiotics should be taken as directed by the cardiologist.

ALERT: Call your child's doctor, nurse, or clinic if you have any questions or concerns or if your child has special health care needs that were not covered by this information.