

Coarctation of the Aorta

What is it?

Coarctation (pronounced koh-ark-TEY-shun) of the aorta is a birth defect of the heart. It occurs when the aorta is narrower than normal. The **aorta** is the blood vessel that carries oxygen-rich blood to the body. Coarctation of the aorta is considered a **critical congenital heart defect**, which means it can cause serious health problems and may lead to death if not treated soon after birth. If the coarctation is severe enough, blood may not get to the lower body. This makes the heart work harder than normal, which can cause the walls of the heart to become thicker. This will eventually weaken the heart muscle. The aorta needs to be widened to prevent heart failure. Coarctation of the aorta may occur with other congenital heart defects.

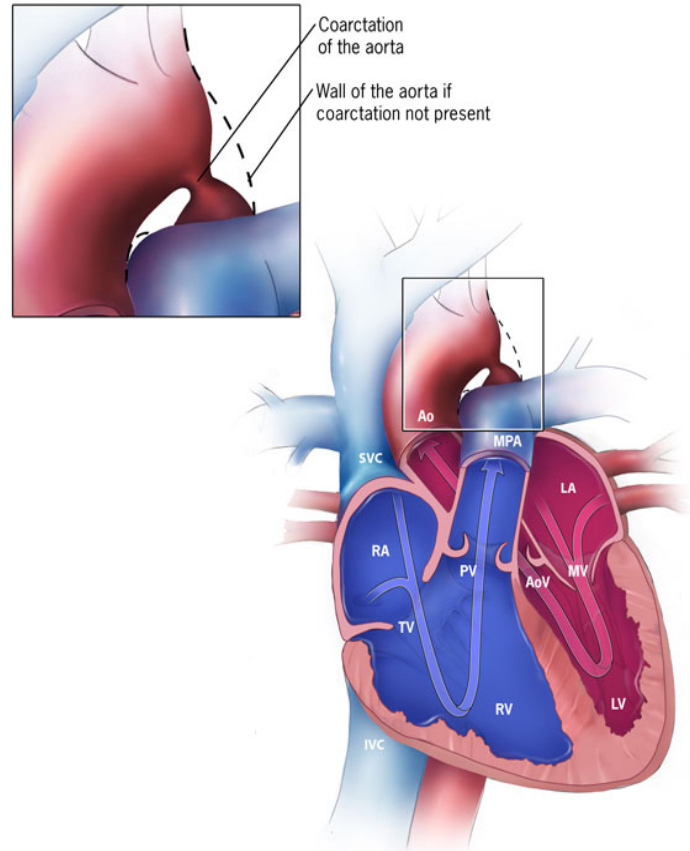
How common is it?

About 4 in every 10,000 babies will be born with coarctation of the aorta.

What causes it?

The cause of coarctation of the aorta among most babies is unknown. Many factors may cause coarctation of the aorta. More research is needed to understand the causes of coarctation of the aorta.

Coarctation of the Aorta



RA. Right Atrium
RV. Right Ventricle
LA. Left Atrium
LV. Left Ventricle
SVC. Superior Vena Cava
IVC. Inferior Vena Cava
MPA. Main Pulmonary Artery
Ao. Aorta
TV. Tricuspid Valve
MV. Mitral Valve
PV. Pulmonary Valve
AoV. Aortic Valve

Courtesy of the Centers for Disease Control and Prevention, National Center on Birth Defects and Developmental Disabilities

How is it diagnosed?

Coarctation of the aorta is usually diagnosed after birth. After birth a doctor will do a physical examination. The doctor may see early signs, including pale skin, irritability, heavy sweating, and trouble breathing. The doctor will listen to a baby's heart. If the doctor hears a heart murmur, or a "whooshing" sound, that may be a sign of a heart defect. A screening test is done shortly after birth to check for critical congenital heart defects. If the doctor suspects there is a heart defect, then the doctor should perform a diagnostic test such as an **echocardiogram**.

How is it treated?

Coarctation of the aorta is normally treated by surgery or balloon angioplasty. A **balloon angioplasty** is a procedure that uses a thin tube, called a **catheter**. The catheter is inserted into a blood vessel and directed to the aorta. A balloon at the tip is inflated to expand the blood vessel when the catheter reaches the narrow area of the aorta. Surgery removes the narrow portion of the aorta and reforms it, allowing blood to flow normally. Children may still have high blood pressure after surgery, and this is often treated with medicine. Your child's doctor should discuss these treatment options with you. A child with coarctation will need regular visits to a **cardiologist** to monitor his or her heart condition.

For more information:

American Heart Association

http://www.heart.org/HEARTORG/Conditions/CongenitalHeartDefects/AboutCongenitalHeartDefects/About-Congenital-Heart-Defects_UCM_001217_Article.jsp#.Wv2YtPnwbc

Centers for Disease Control and Prevention

<https://www.cdc.gov/ncbddd/heartdefects/coarctationofaorta.html>

National Heart, Lung, and Blood Institute

<https://www.nhlbi.nih.gov/health-topics/congenital-heart-defects>

