

Double Outlet Right Ventricle (DORV)

What is it?

Double outlet right ventricle is a rare birth defect of the heart. In a normal heart, the pulmonary artery connects to the right lower chamber, called the **right ventricle**, and the aorta connects to the left lower chamber, called the **left ventricle**. The pulmonary artery normally pumps oxygen-poor blood to the lungs, while the aorta normally pumps oxygen-rich blood to the body. **Double outlet right ventricle (DORV)** occurs when both the pulmonary artery and aorta connect to the right ventricle. Sometimes these blood vessels get transposed, or switched, from their normal positions. This means that oxygen-poor blood gets pumped to the body instead of oxygen-rich blood. There will also be an opening between the lower chambers of the heart. This is called a **ventricular septal defect**. Other openings in the heart, heart valve problems, or other blood vessel problems also may be present. DORV is considered a **critical congenital heart defect**. **Congenital** means present at birth, and **critical congenital heart defects** can cause serious health problems or even death if left untreated.

How common is it?

About 1 in every 10,000 babies will be born with DORV.

What causes it?

The cause of DORV in most babies is unknown. Many factors may cause DORV, but more research is needed to understand the exact cause of it.

How is it diagnosed?

DORV may be diagnosed during pregnancy or after. During pregnancy screenings are done to check for birth defects. After birth a doctor will do a physical examination. The doctor will see if a baby has blue colored skin and lips, called **cyanosis**. This can be a sign of low levels of oxygen in the blood. 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 doctor also might see that a baby is having trouble breathing, a pounding heart, and poor feeding, all of which could be signs of a heart defect. If a doctor suspects there is a heart defect, he or she should perform a diagnostic test called an **echocardiogram** to check for defects in the heart.



How is it treated?

DORV is usually treated by surgery. The goal of surgery is to close the opening in the heart and connect the aorta and pulmonary artery to the correct lower chambers. There are a couple different ways a surgeon can repair the heart. Your child's doctor should discuss treatment options with you.

For more information:

American Heart Association

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

National Heart, Lung, and Blood Institute

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

