

Coarctation of the Aorta

Definition:

Coarctation of the Aorta (CoA) is when there is a constriction or narrowing of a part of the aorta.

What causes it?

Cause is unknown and it can sometimes occur with other congenital heart defects.

How does it affect the heart?

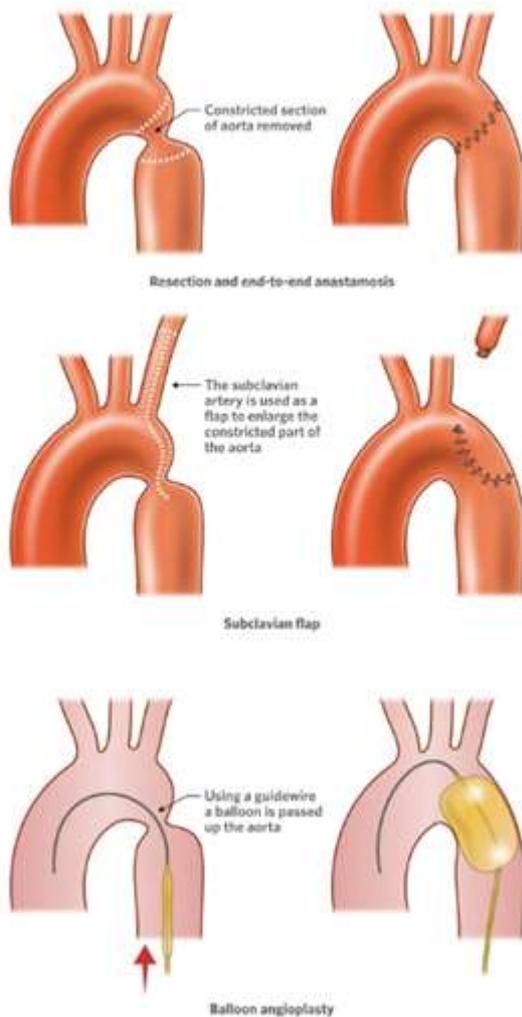
Coarctation obstructs blood flow from the heart to the lower part of the body. Blood pressure is higher above the obstruction. The heart must work harder to pump blood across the constriction in the aorta. This can cause thickening of the overworked heart muscle which eventually will be damaged.

How will coarctation affect your child?

Symptoms may develop as early as the first week after birth. A baby may present with heart failure or high blood pressure. If the obstruction is mild, symptoms may not present early. In some children and adolescents, coarctation is discovered only after high blood pressure is found during routine examination for another reason.

Management Options for Coarctation:

Coarctation repair



The coarctation obstruction can be relieved using surgery or catheterization. During cardiac catheterization a special balloon is placed in the constricted area, inflated for a short time to stretching the constricted area.

Surgery is usually the first line to repair coarctation. A surgeon doesn't have to open the heart to repair the coarctation.

It can be fixed in different ways according to the severity and extent of coarctation. Usually the surgeon removes only the narrowed segment of aorta. Another option is to sew a patch over the narrowed section using part of the blood vessel to the arm or a graft of synthetic material.

What activities can your child do?

Before repair, there will be limitation of physical activity as the heart will be affected. After repair however, there should be no limitation of physical activity and your child will be able to lead an active and healthy lifestyle.

Following up in the future

The condition after surgery is favorable, but long-term follow-up by a pediatric cardiologist is needed. Sometimes, coarctation of the aorta may recur, thus another procedure to relieve the obstruction may be needed, usually balloon dilatation via cardiac catheterization. Also, blood pressure may stay high even when the aorta's narrowing has been repaired which requires medication to lower blood pressure. It is recommended to receive antibiotics prior to any surgical or dental procedures to protect from infective endocarditis.