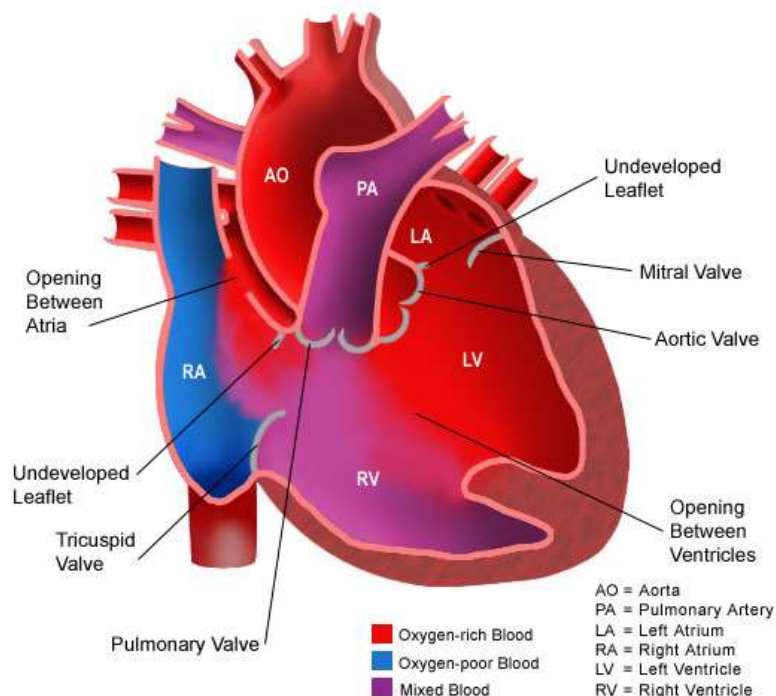


Atrioventricular Canal Defect



Atrioventricular Canal Defect

What is it?

An AV Canal Defect is basically a large hole in the heart that occurs where the wall between the upper chambers of the heart connects with the lower chambers of the heart. As a result it affects both upper and lower chambers of the heart. Also, as a result of its location, both valves (on the left side and the right side of the heart that usually separate the upper from the lower chambers) aren't formed well, so they exist as a single valve that crosses the hole between the two chambers.

What causes it?

Commonly associated with kids that have Down Syndrome. As a result, most children with Down Syndrome usually have their hearts checked via an echo to see if the defect is there.

How does it affect the heart?

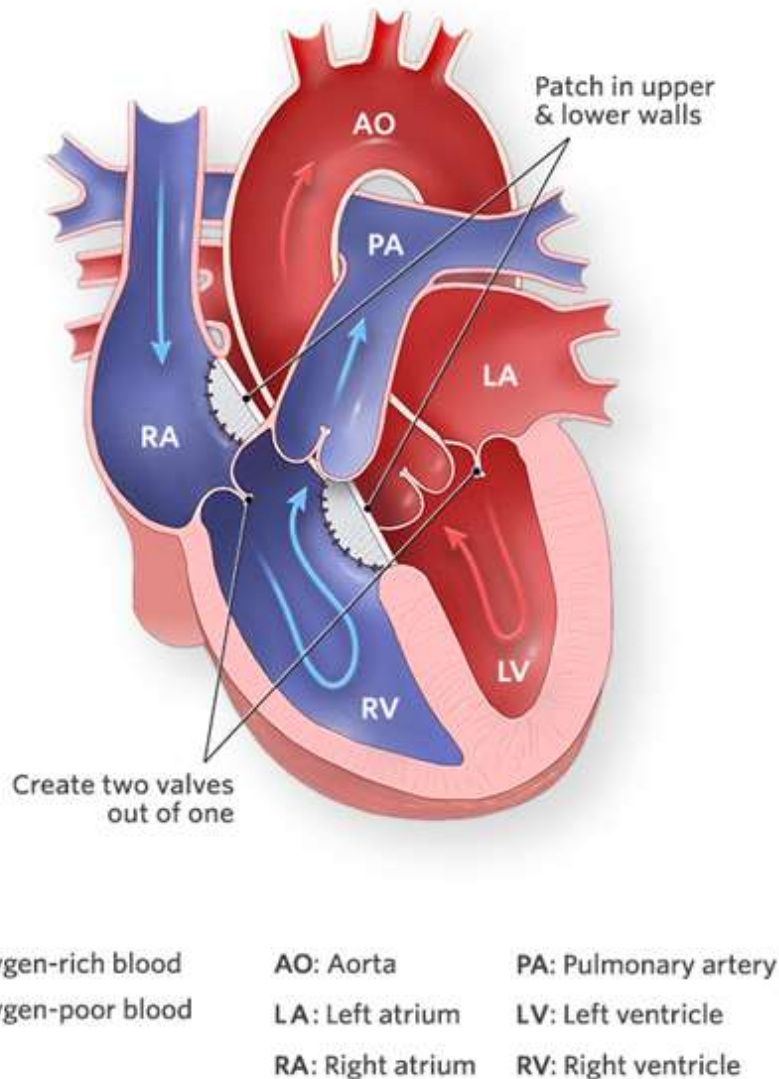
The defects results of pumping more blood across the holes to the right side resulting in overworking of heart muscle and overflowing lung arteries, eventually lung arteries will be damaged. In addition the leaking valve leads to backward leak of blood from lower chamber to upper chambers causing the heart to work harder.

How does it affect my child?

It can cause the child to experience heart failure. Heart failure is a term used to describe the excess work the heart has to go through in order to overcome the difficulties presented by the defect. This shows in the form of increased breathing, faster heartbeat, difficulty in eating and growing properly. If left untreated, it can lead to irreversible changes in the blood vessels of the lung.

Management Options:

Complete Common Atrioventricular Canal (CAVC) Repair



AV canal defects will need an open heart surgery in order to fix the defects. Before the surgery is scheduled, medicine can be used in order to control the symptoms to get the patient ready for the surgery but they will not cure the condition or protect the lung vessels from irreversible damage.

The surgery is usually done during infancy (the first year of life) and consists of closing the hole with a patch or two. The surgeon also divides the valve into two separate valves, to make it as close to normal as possible. Sometimes, the patient will not be ready for surgery due to severe illness that is not properly controlled with medication. In these cases, a temporary surgery to relieve the symptoms can be done in order

to improve the child's general condition allowing him or her to be ready for surgery. It's called pulmonary artery banding, and it consists of narrowing the vessel carrying blood from the heart to the lung (to prevent constant chest infection and protect the lung vessels as much as possible). It is not a final surgery as the defect still needs to be repaired as soon as the child can be ready for it.

What activities can your child do?

After closure of the hole and repair of the valves, the child should be able to lead a normal and healthy lifestyle and need not limit their activities. However, the decision will fall back on the cardiologists after they examine the heart, as some patients might need some limitation.

Following up in the future:

After the surgery, the child must be examined regularly by your pediatric cardiologist. Sometimes, medication will need to continue and more rarely, another surgery. For most children, the long term outlook is very promising and medication will not be required nor surgery.

Children may need to receive antibiotics before any surgical or dental procedures to prevent infective endocarditis.