

Atrioventricular Septal Defect (AVSD)

WHAT IS IT AND HOW DOES IT AFFECT THE HEART?

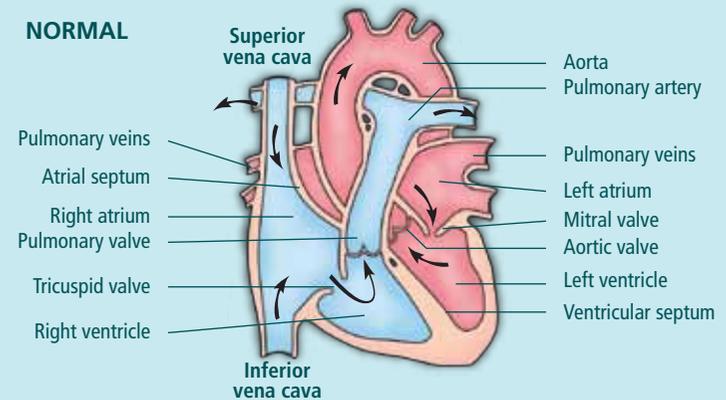
Atrioventricular septal defect (AVSD) is a large hole in the center of the heart where the wall (septum) between the upper chambers (atria) joins the wall between the lower chambers (ventricles). There is only a single large valve between the two upper and lower chambers.

It is the commonest type of heart defect in children with Down syndrome.

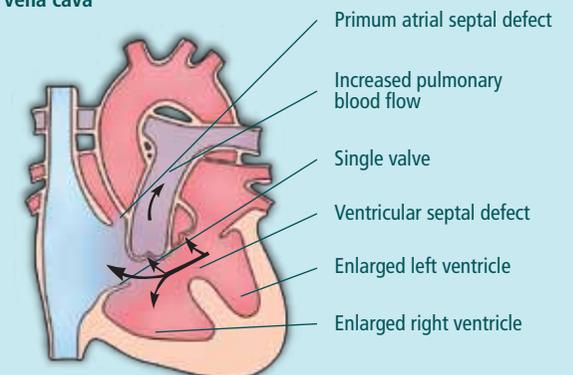
Extra blood flows across the hole from the left heart chambers to the right heart chambers and out into the lung arteries, makes the heart and lungs work harder, the heart gets enlarged and the lungs become congested. Over time, this causes permanent damage to the lung blood vessels.

In some infants, the common valve doesn't close properly, causing blood to leak backward from the heart's lower chambers to the upper ones and adding to the work load of the heart.

NORMAL



COMPLETE ATRIO-VENTRICULAR SEPTAL DEFECT



HOW WOULD THE AV CANAL DEFECT AFFECT MY CHILD?

The affected children develop symptoms a few weeks after birth. The symptoms are breathing difficulty, trouble feeding and poor weight gain. These symptoms are due to excessive blood flow to the lungs where the heart and lungs have to work harder.

WHAT WILL HAPPEN TO MY CHILD IF UNTREATED?

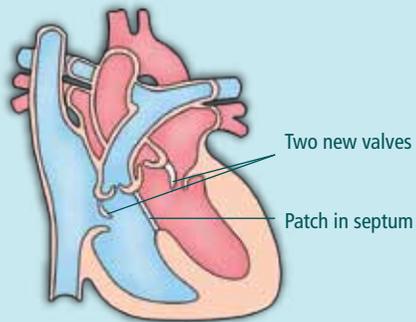
The affected children will have persistent heart failure and high lung blood pressure. Over time this causes permanent damage to the lung blood vessels.

HOW CAN IT BE TREATED?

Open-heart surgery is needed to repair the defect as it won't close on its own. Medicines are only able to temporarily reduce the symptoms, but they won't cure the defect or prevent permanent damage to the lung arteries.

The large hole will be closed with one or two patches. The single valve between the heart's upper and lower chambers will be divided and made into two separate valves. However the outcome of this operation depends on the severity of the leaky valves, associated high lung pressure and the size of the hole.

SEPTUM PATCH AND NEW VALVES



If the child is very ill, or has a defect that may be too complex to repair in infancy, a temporary operation to relieve symptoms and high pressure in the lungs may be needed. This procedure (pulmonary artery banding) narrows the pulmonary artery to reduce the blood flow to the lungs. When the child is older, an operation is done to remove the band and repair the AV canal defect with open-heart surgery.

WHAT WILL HAPPEN TO MY CHILD AFTER SURGERY?

Surgical repair of the defect is usually good. However the reconstructed valves may either have residual leakage or narrowing which may need more medical treatment or surgery.

Generally long term survival outcome is good but the affected children have to be followed up regularly for any residual lesions.



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WHAT HAPPENS
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