There is a hole between the top two chambers of the heart and the bottom two chambers of the heart. One large atrioventricular (AV) valve exists rather than two separate valves.

The red and the blue blood mix together freely. The right side of the heart and the lungs receive too much blood. The body does not receive enough oxygenated blood. The one large AV valve may not work very well and may allow blood to re-enter the top chambers (regurgitant flow).

Sometimes an infant is too small or too sick for the corrective surgery. A pulmonary artery band may be placed through either via a thoracotomy (side) or sternotomy (chest) incision. This will restrict the extra blood flow to the lungs until the corrective surgery can be done, when the child is bigger and/or stronger. The band is removed during the corrective surgery.
Correction of the AVSD is done with patches to:
- separate the top two chambers of the heart,
- separate the bottom two chambers of the heart and
- make two reasonably functioning valves (the tricuspid and mitral) from the one large atrioventricular valve

The operation is done through a median sternotomy (chest) incision.