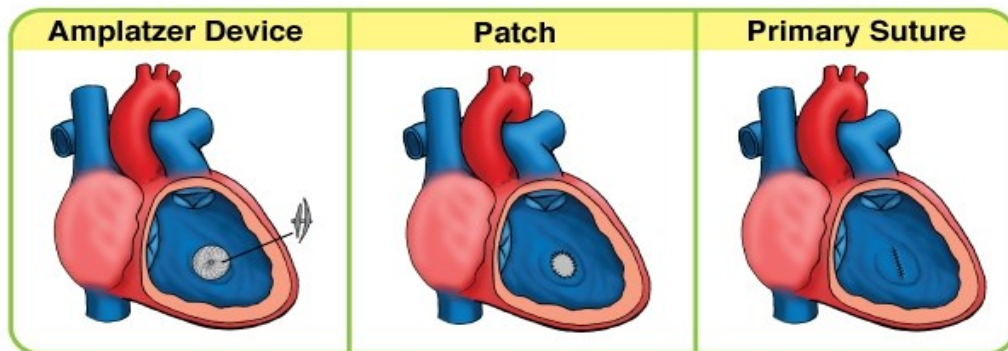
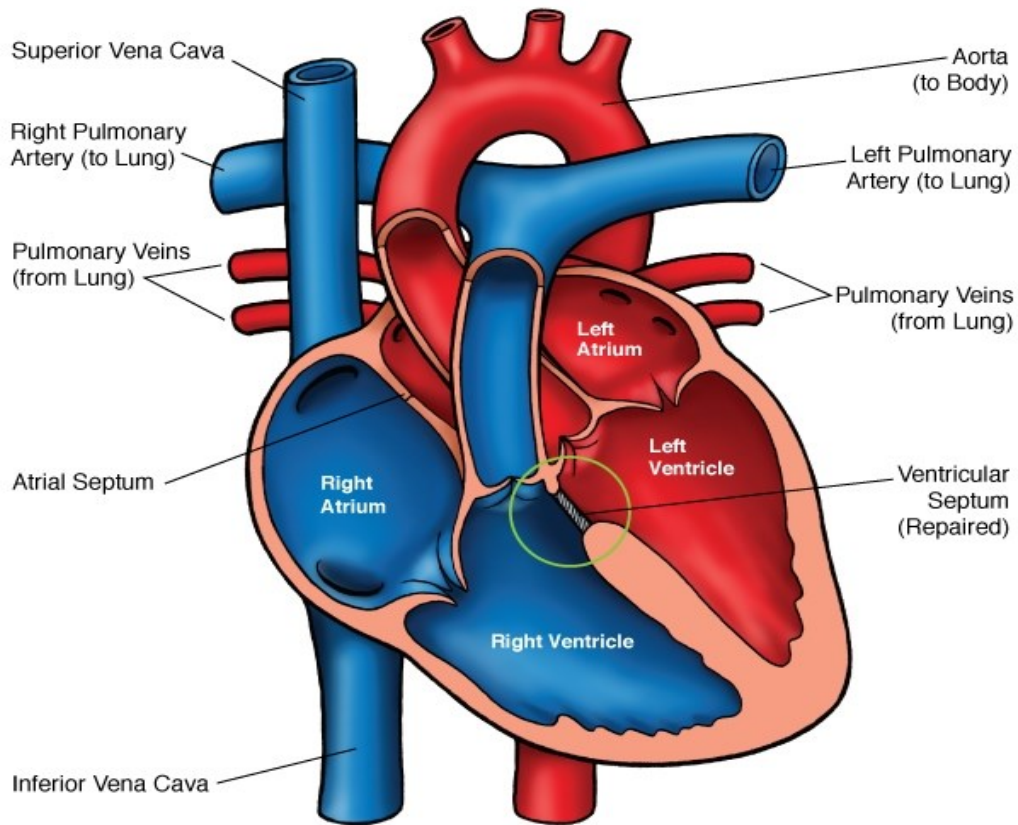




Ventricular Septal Defect (VSD) Repair



NOTES:

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Ventricular Septal Defect Repair

A ventricular septal defect is a hole between the pumping chambers of the heart (see [VSD](#)). This hole can either be closed during surgery or with a catheter based device.

Catheter Device Closure: An Amplatzer® (AGA Medical) device can be used to close centrally located muscular VSDs. This can either be done in the catheterization lab or as a combined catheterization/surgical procedure in the Hybrid O.R. (an operating room with catheterization lab capabilities). During the Hybrid procedure, a needle is injected in the right ventricle and catheters are threaded in the heart across the VSD. The Amplatzer® (AGA Medical) device is then deployed in the appropriate location across the VSD.

- **Typical recovery following catheter based only procedure:** Most children will stay overnight in the Cardiovascular Care Center. Typically, the patient will go home the day following the procedure after an echocardiogram is done to assure good position of the device.

Surgical Closure: A median sternotomy (incision through the middle of the chest) is done. The patient is placed on cardiopulmonary bypass (the heart-lung machine). *Perimembranous, outlet, and inlet VSDs* are closed with a Dacron patch. *Muscular VSDs* can be sutured primarily (if small enough), closed with a Dacron patch, or as part of a Hybrid procedure (surgery and catheter intervention) with an Amplatzer® (AGA Medical) device. Occasionally, stitches need to be placed on the tricuspid valve to prevent leaking caused by placement of the patch.

Typical Post-Operative Course:

- **Surgery Length:** 3-4 hours
- **Typical Lines:** Most children will return to the Cardiovascular Care Center after surgery with a breathing tube, an arterial line to monitor blood pressure, a central venous line (for giving IV medicines and drawing labs), a peripheral IV, chest tubes to drain fluid, a foley catheter to drain urine, and often, temporary pacemaker wires.
- **Typical Post-operative Recovery:** The breathing tube is usually removed shortly after surgery or the next day. The central line is left in place as long as labs and IV medicines are needed. Chest tubes usually are removed 24-48 hours after surgery, once fluid output decreases.
- **Typical length of hospital stay:** A child will typically stay in the hospital for 4-7 days following a VSD closure.

Typical Home Medications: Children may require one or more medications at home following closure of a VSD such as:

- Diuretics (Lasix) to control fluid