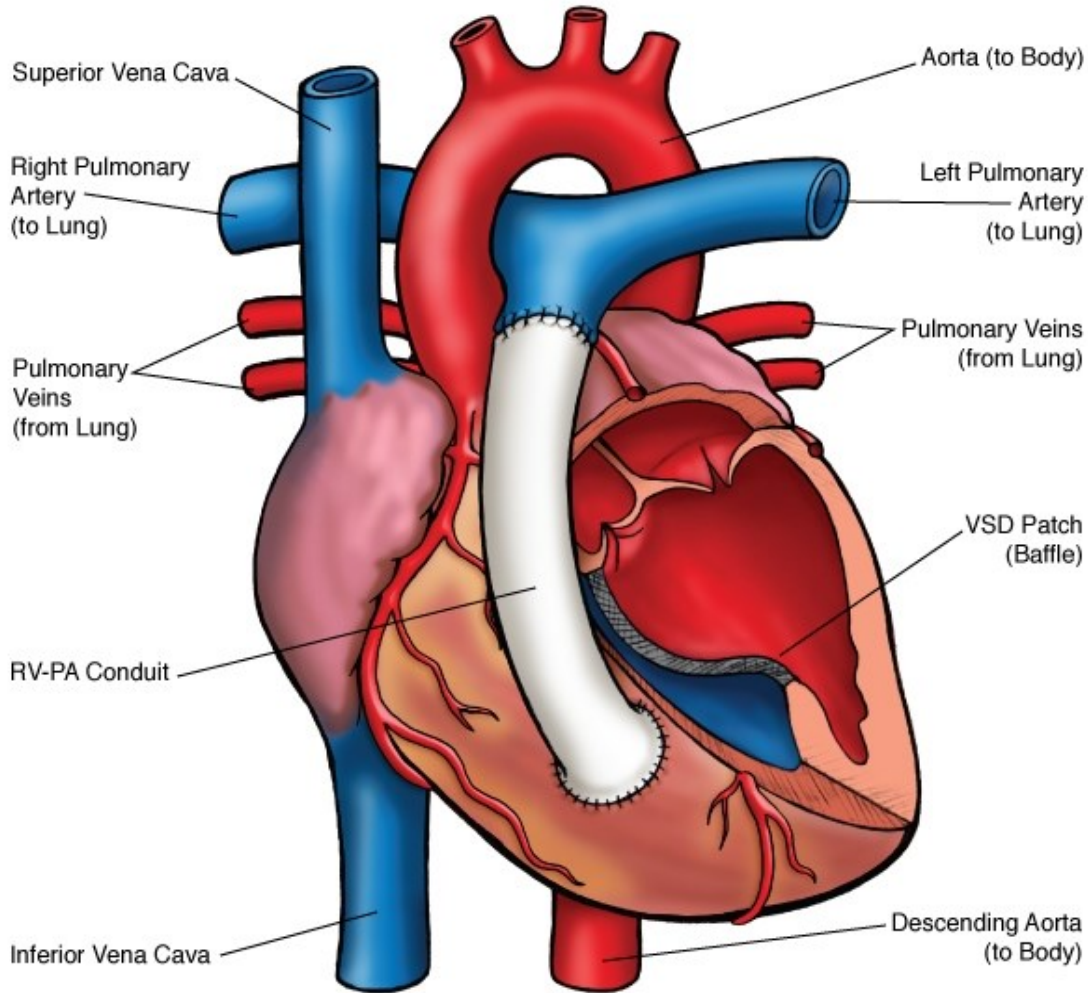
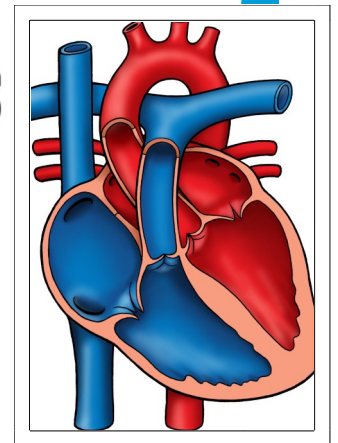




# Rastelli Procedure



Normal Heart



NOTES:

Children's Heart Clinic, P.A., 2530 Chicago Avenue S, Ste 500, Minneapolis, MN 55404  
 West Metro: 612-813-8800 \* East Metro: 651-220-8800 \* Toll Free: 1-800-938-0301 \* Fax: 612-813-8825  
 Children's Hospitals and Clinics of MN, 2525 Chicago Avenue S, Minneapolis, MN 55404  
 West Metro: 612-813-6000 \* East Metro: 651-220-6000

---

## Rastelli Procedure

The Rastelli procedure is a surgery used to correct congenital heart defects such as, [double outlet right ventricle \(DORV\)](#) and [truncus arteriosus](#). It can also be combined with the [modified Norwood procedure](#) to correct aortic atresia with a ventricular septal defect (VSD). The Rastelli procedure involves creating a “baffle” to close the ventricular septal defect (VSD), separating the right & left ventricles. The baffle directs blood flow from the left ventricle to the aorta. During this surgery, a [right ventricle to pulmonary artery \(RV-PA\) conduit](#) is also placed to supply blood flow to the lungs. There are many types of materials used for RV-PA conduits. Depending on the surgical plan and patient’s anatomy, conduits made of Gore-Tex® (Gore), homograft (cadaver valved tissue), Contegra® (Medtronic) conduits (valved bovine jugular vein), or Hancock® (Medtronic) conduits (Dacron tube graft containing a porcine (pig) valve) can be used. At the completion of the Rastelli procedure, there is separation of “blue” and “red” blood, similar to a normal heart’s blood flow.

During surgery, a median sternotomy (incision through the middle of the chest) is done. The patient is placed on cardiopulmonary bypass (heart–lung machine). Depending on the patient’s anatomy and surgical plan, an incision is made on either on the right atrium or right ventricle to view the VSD. A Dacron patch is cut to the appropriate size. The patch is then sewn over the VSD to “baffle” blood flow from the left ventricle to the aorta. Once this is completed, if not already done, incisions are made on the pulmonary artery and right ventricle. An appropriate sized right ventricle-to-pulmonary artery conduit is selected. One end of the conduit is sewn onto the incision on the pulmonary artery and the other end is sewn onto the incision on the right ventricle.

### Typical Post-Operative Course:

- **Surgery Length:** 5 hours
- **Typical Lines:** Most patients 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, and a foley catheter to drain urine.
- **Typical Post-Operative Recovery:** The breathing tube is generally removed within 24-48 hours after surgery. The arterial line is usually removed within a few days, once most IV medicines are stopped. The central venous line is removed once most IV medicines are stopped and labs no longer need to be drawn. Chest tubes are usually removed 24-48 hours following surgery, once the output of fluid is minimal. Depending on the type of conduit placed and surgical plan, the patient may be placed on aspirin for a period of time after surgery.
- **Typical Length of Stay:** A patient usually stays in the hospital for 6 days following a Rastelli procedure.

**Typical Home Medications:** Children may require one or more medications at home following a Rastelli procedure such as:

- Diuretics (Lasix) to control fluid
- Anticoagulant (aspirin) to prevent clotting