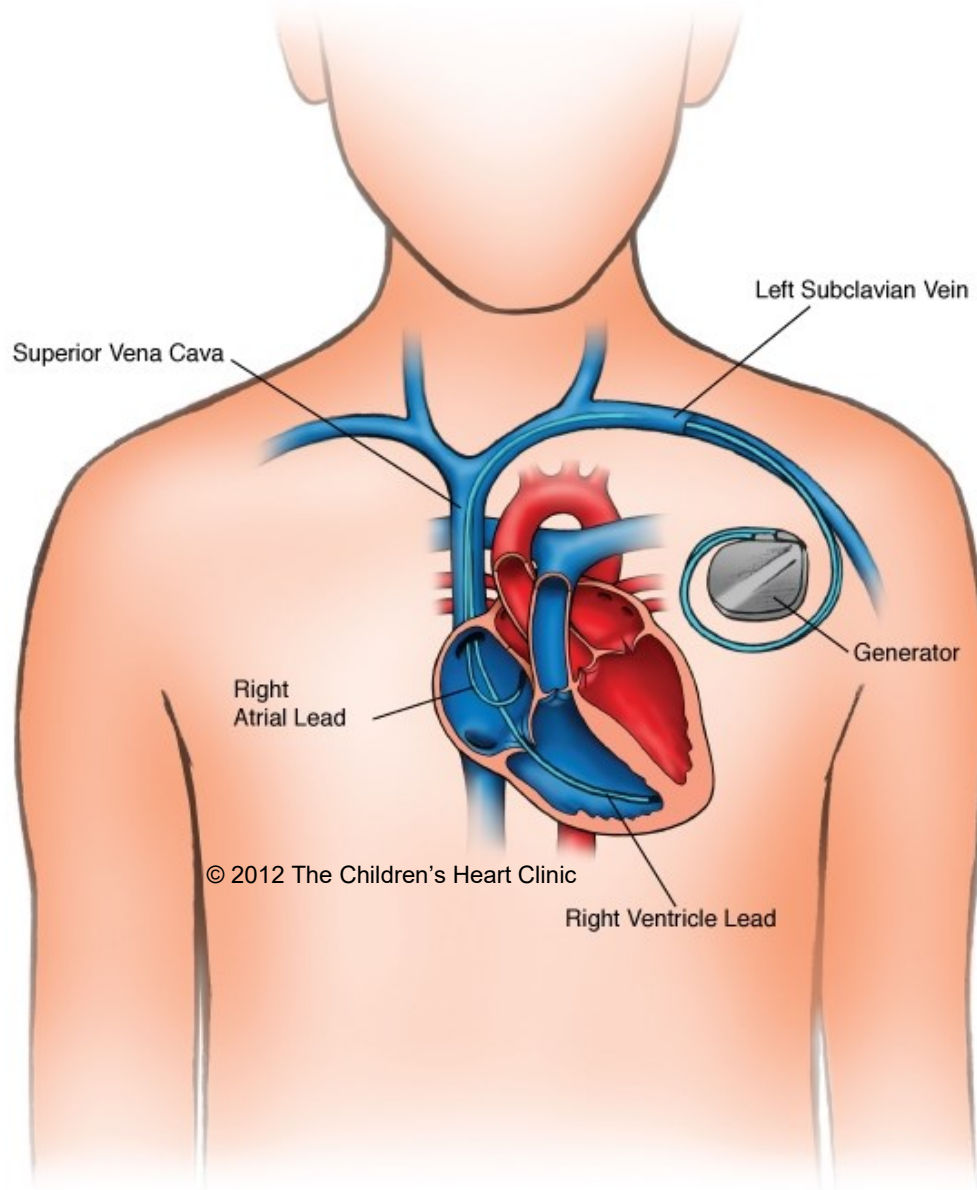


Pacemaker/Defibrillator Placement: Transvenous



Notes:

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Transvenous Pacemaker Placement

A transvenous pacemaker is an implanted device that can be used to control a patient's heart rate. A pacemaker consists of an atrial (top chamber) and/or ventricular (bottom chamber) pacing leads that are introduced into the heart through the veins and a generator (battery) is placed under the skin or muscle of the chest wall. Pacemakers are placed in patients who are deemed to have inappropriately slow heart rates (bradycardia) or when the electrical signals from the top chamber of the heart (atria) are not communicating with the lower chambers of the heart (ventricles), known as heart block. A patient can either be born with heart block or acquire it for other reasons, such as surgery. Pacemakers are placed transvenously when the patient is large enough and has two ventricle anatomy, similar to a normal heart.

Depending on the surgical plan, an incision is made on the upper left chest near the collar bone. A needle is inserted into the patient's subclavian vein and sheaths, similar to large IV catheters, are placed. As indicated, pacing leads are placed into the atrium, ventricle, or both under fluoroscopic (X-ray) guidance. Once in place, the leads are tested to assure that they pace and sense the heart rate appropriately. A "pocket" is created at the site of the incision that will fit a pacemaker generator. Once completed, the pacemaker leads are attached and secured to the generator, the generator is placed in the "pocket," and the incision is closed.

Typical Post-Operative Course:

- Surgery Length: 2-3 hours
- Typical Lines: Patients will return to the Cardiovascular Care Center after surgery with only peripheral IVs.
- Typical Post-Operative Recovery: Patients will generally recover in PAR 4 until alert and awake. Once stable, they will return to the Cardiovascular Care Center to stay overnight. In the morning, a chest x-ray is checked to assure proper location of the pacemaker leads and the device is interrogated for appropriate pacing. If stable, the patient will then be discharged home
- Typical Length of Stay: A patient usually stays in the hospital for one night following a transvenous pacemaker placement.

Typical Home Medications: Children will require medications at home following placement of a transvenous pacemaker such as:

- Pain medications (Oxycodone, Tylenol, Ibuprofen) for several days following surgery