

Left Ventricular Assist Device

What is a left ventricular assist device (LVAD)?

The left ventricle is the large, muscular chamber of the heart that pumps blood out to the body. A left ventricular assist device (LVAD) is a battery-operated, mechanical pump-type device that's surgically implanted. It helps maintain the pumping ability of a heart that can't effectively work on its own.

These devices are becoming very common and are now available in most heart transplant centers.

When is a LVAD used?

This device is sometimes called a "bridge to transplant." People awaiting a heart transplant often must wait a long time before a suitable heart becomes available. During this wait, the patient's already-weakened heart may deteriorate and become unable to pump enough blood to sustain life. An LVAD can help a weak heart and "buy time" for the patient.

How does an LVAD work?

A common type of LVAD has a tube that pulls blood from the left ventricle into a pump. The pump then sends blood into the aorta (the large blood vessel leaving the left ventricle). This effectively helps the weakened ventricle. The pump is placed in the upper part of the abdomen. Another tube attached to the pump is brought out of the abdominal wall to the outside of the body and attached to the pump's battery and control system. LVADs are now portable and are often used for weeks to months. Patients with LVADs can be discharged from the hospital and have an acceptable quality of life while waiting for a donor heart to become available.

See the <https://www.heart.org/en> website for more information on:

- Congestive Heart Failure
- Heart, How It Works
- Heart Transplants and Statistics
- Open-Heart Surgery Statistics
- Organ Donation