

# Treating Heart Failure: Left Ventricular Assist Devices

Heart failure is a chronic condition that may get worse with time.

As the heart has more problems pumping enough oxygen-rich blood to the body, doctors have different treatment options.

One of them is known as a left ventricular assist device, or LVAD. The left ventricle is the heart's main pumping chamber.

With every heartbeat, the left ventricle squeezes forcefully. This sends blood into a large artery called the aorta, so it can be pumped to the rest of the body.

In some types of advanced heart failure, the left ventricle becomes weak and flabby and cannot pump enough blood.

An LVAD is a special type of device that attaches to the left ventricle and helps it pump.

The device has several parts.

Some parts are surgically implanted inside the body and attached to the heart. Others are worn outside the body and connected through the skin.

The internal parts include a pump that pulls the blood from the left ventricle and then pumps the blood through a tube into the aorta, the large blood vessel leaving the left ventricle.

The external parts include a controller and power source. These are worn outside the body and connected to the pump with a line that goes through the skin. This line is called a driveline.

When they were first introduced, LVAD devices were meant to be used for short periods of time while patients waited for a heart transplant or surgery.

Today, LVAD devices are improved and can be used for a long time. As a result, for some patients, an LVAD is enough to support a healthy heart and they won't need surgery.

For many patients, getting an LVAD results in an immediate and dramatic improvement in symptoms.

Living with an LVAD means making some adjustments. This includes following your healthcare provider's instructions to keep the dressing that protects the area where the driveline goes into your skin clean. This helps reduce the risk of infection.

Taking a bath and swimming are not allowed with these devices; however, the manufacturers have developed accessories to help keep the equipment dry once the driveline site has healed.

Your healthcare provider may also discuss recommendations with you about set-up of the equipment for sleeping, resumption of work, more strenuous activities, including leisure activities, sexual intimacy, and driving.

Getting an LVAD can mean a major improvement in your day-to-day symptoms and quality of life.

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Even with an LVAD device, you still have heart failure. It's important to follow your doctor's advice and keep up with regular appointments.