You are being considered for an LVAD. This booklet is designed to help you understand what an LVAD is and to help you, your family, and your doctors think about what is best for you. Your values and goals are the most important factors in making a decision.

What are your current feelings about being considered for an LVAD?

Think about…

- how you want to live the rest of your life
- your hopes and fears
- your biggest questions
Now that you’ve thought about your first impressions, let’s talk through the details of this DECISION.

You are in a tough spot.

You have severe heart failure. Your current medicines are no longer working. Without a major heart surgery, you may die soon. You are not able to get a transplant. Therefore, you are being considered for an LVAD (partial artificial heart).

Many patients like you have found this scary or confusing. Some patients have felt pressured to make a decision.

These emotions are normal.

What is heart failure?

Heart failure is when the heart is too weak to pump enough blood for the body. This causes shortness of breath, tiredness, and swelling. For most people, heart failure gets worse over time. Severe heart failure can lead to death.

This is a major decision.

If your doctors feel you are eligible for an LVAD, you are facing a major decision. Such a decision may make some people feel uncomfortable. While no one can predict the future, understanding what could happen may help you to feel more at peace about your decision. While this may be hard to think about, people in your position have wanted to know this information.

Some patients choose to get an LVAD. Other patients decide not to get an LVAD. The right choice really depends on how you hope to live the rest of your life.
What is an LVAD (Left Ventricular Assist Device)?

An LVAD is a mechanical device that helps your heart do its job of pumping blood. The LVAD is attached to your heart during major surgery. An LVAD in a patient who will never get a transplant is called “destination therapy” (or DT LVAD). This means that the patient will have the device for the rest of his or her life.

What is the process of getting an LVAD?

- Getting an LVAD requires open heart surgery
- The surgery can be dangerous, and recovery can be quite long and difficult
- Most patients stay in the hospital for a couple of weeks – some stay longer
- Patients and their caregivers attend education sessions to learn how to use the device equipment
What might my life look like with each **OPTION**?

The numbers below are a summary of information collected from recent medical studies. However, no one can know what will happen to an individual person.

---

**Life with an LVAD**

**How long might I live?**
Patients usually live longer with an LVAD. After 1 year, about 8 out of 10 patients who got an LVAD are still alive.¹

80% Alive  20% Dead

**How might I feel?**
Of those patients who get through surgery, many feel big improvements in heart failure symptoms – less shortness of breath, less swelling, and more energy.¹ Most patients say they can do more.

**What complications might occur?**
1 year after surgery, about:¹
- 5 to 6 patients out of 10 are readmitted to the hospital
- 1 in 10 have a disabling stroke
- 2 in 10 develop a device-related infection
- 2 in 10 have a serious bleed that requires medical attention
- Nearly 1 in 10 need surgery again to replace the LVAD pump

---

**Life without an LVAD**

**How long might I live?**
Patients usually do not live as long without an LVAD. After 1 year, almost 2 out of 10 patients who did not get an LVAD are still alive.¹

17% Alive  83% Dead

**How might I feel?**
Nearly all patients without an LVAD continue to have severe heart failure. Symptoms can be managed.

**What might occur if I don’t get an LVAD?**
Most likely, patients will not be alive at 1 year.¹
- Patients will not have to be dependent on a machine to live
- Patients can often leave the hospital earlier and spend their remaining time at home
- Patients often decide to only take medicine to help with pain and other symptoms
- Palliative care and hospice are available, but without an LVAD, patients might need these services sooner (see description on next page)
With or without an LVAD, there are services available to help with **SYMPTOMS** and suffering of advanced illness.

**What is palliative care?**

Palliative care is medical care for people with serious illnesses. It helps provide relief from symptoms, pain, and stress. It also provides emotional and spiritual support. The goal of palliative care is to improve quality of life for patients and their caregivers.

**What is hospice?**

Hospice care is given by health professionals for patients near the end of their lives. This care includes medical, emotional, and spiritual support, and helps to provide comfort and peace for patients. Hospice care usually occurs at a patient’s home. It can also occur in other settings, such as a nursing home.

Even with an LVAD, some patients will continue to feel worse or get sicker due to other health problems. These patients will have the option of turning off the pump.

**Patient Perspectives:**

**Patients who got an LVAD**

“It wasn't an easy choice for me to make. But then I started focusing on my life. On myself.”

“I was willing to do anything they told me I had to do to feel better.”

**Patients who chose not to get an LVAD**

“I don't know if the pump would keep me alive. And even if it does, I'm not sure it would be worth living. Because I'm not going to claw and hold on to the wall to stay alive.”

“I'm tired of being in pain and suffering. I'm not scared of death.”

---

**Whether we like it or not, everybody eventually dies.**

**However, you have some control over how you will live the rest of your life.**
If I get an LVAD, how will my life CHANGE?

There are many life-changing aspects of the LVAD that you should consider:

**Power Source:** You must be plugged into a power source at all times – loss of electrical power to the pump can result in death. When you are sleeping you will plug into an electrical outlet. During the day you can switch over to batteries, which last about 6-12 hours.

**Carrying Equipment:** Along with batteries, you will have to carry the controller. Equipment can be carried in a vest or on a belt. Battery packs weigh about 7 pounds. Carrying extra battery packs and an extra controller is also important, in case they need to be changed.

**Driveline Care:** The driveline site (where the electrical cord exits the skin) must be managed carefully. Bandages must be changed and the site should be cleaned several times a week. Lack of care could cause a deadly infection.

**Medicine:** With an LVAD, you will have to take blood thinners for the rest of your life. You may need to continue some medicine to help with your heart, but most patients take less medicine after getting an LVAD. You also will have to go to the doctor’s office often for check-ups.

**Water Precautions:** Due to the equipment and driveline site, you must avoid going into water. This means you can no longer swim, bathe, or take regular showers. You can purchase special water protection equipment in order to shower with your device.

**Cost:** Depending on your insurance coverage, you may have extra costs with your device. Many patients have to pay for the driveline bandages. You may also have co-payments for your medical care.

**Sex:** Some patients and their partners report a change in their sex life. However, for most LVAD patients, sex is safe after recovery from surgery.

**Emotions:** The LVAD may cause emotional effects for both patients and caregivers. Some people are very grateful for the LVAD and get used to these lifestyle changes. Others worry often about their equipment failing or feel overwhelmed with taking care of the device. This stress can lead to depression and anxiety. Seeking mental health care may be helpful.
An LVAD is a major decision for CAREGIVERS, too.

Caring for a patient with severe heart failure often requires lifestyle changes. When a patient gets an LVAD, the caregiver’s lifestyle can change further. The caregiver’s responsibilities are different for every patient and change over time.

Most LVAD caregivers express happiness in being able to help their loved one. However, some caregivers feel stressed with responsibilities, finances, or the health of the patient.

Caregivers of patients who choose not to get an LVAD may also experience similar responsibilities and feelings.

The LVAD caregiver helps with:
• Driveline site bandage changes and checking for infection
• Battery care
• Equipment care and alarm response
• Managing medicines
• Arranging follow-up appointments
• Extra care during recovery, usually the first couple months after surgery:
  - Sponge bathing
  - Cooking
  - Running errands
  - Driving the patient

Things to consider:
• Most hospital programs require LVAD patients have a caregiver
• The primary caregiver usually attends training to learn how to operate the LVAD and care for the patient
• Caregivers must be committed to helping the patient on a daily basis – this usually decreases over time
• Some LVAD programs offer support for caregivers – check with your local program to see what is available for caregivers and families

Caregiver Perspectives:

Caregivers of patients with an LVAD

“I am so thankful for the LVAD. You learn to deal with those little things.”

“I’ve never regretted this decision. It’s just that sometimes you get to the point where you want to be at the house and not have someone there that you need to constantly take care of.”

Caregivers of patients without an LVAD

“My husband would have been through a lot more stress if he had the LVAD. He died the way he wanted to. He died at home and he died very peacefully. He wasn’t in pain and that’s brought a lot of peace to me.”

“My worries after we made the decision to not get the LVAD were how much worse he was going to get and how long I would be able to keep him at home and look after him.”
Take some time to **CONSIDER** what you have learned about LVADs and think about how you want to live the rest of your life.

**On a Scale…**

How do you want to live out the rest of your life? (check one box)

| Do everything I can to live longer, even if that means having major surgery and being dependent on a machine. | Live with whatever time I have left, without going through major surgery or being dependent on a machine. |

**Reflection…**

<table>
<thead>
<tr>
<th>With an LVAD?</th>
<th>Without an LVAD?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What do you hope for with or without an LVAD?</td>
<td></td>
</tr>
<tr>
<td>What frightens you about living with or without a LVAD?</td>
<td></td>
</tr>
</tbody>
</table>

**What are your biggest questions…**

…for your doctor, surgeon, or cardiologist?

…for your caregiver or family?

…for patients who currently have an LVAD?

---

https://patientdecisionaid.org


Copyright © 2014 by The Regents of the University of Colorado on behalf of its employees: Larry A. Allen, MD, MHS; Daniel D. Matlock, MD, MPH; Jocelyn S. Thompson, MA; Colleen K. McIlvennan, DNP, ANP; Amy R. Jenkins, MS.

This work was supported through a Patient-Centered Outcomes Research Institute (PCORI) Program Award (1310-06998), the National Heart, Lung, and Blood Institute (K23HL105896) and the National Institutes on Aging (K23AG040696) of the National Institutes of Health, and University of Colorado Department of Medicine Early Career Scholars Program. Conflicts of Interest: Allen – none; Matlock – none, McIlvennan - none; Thompson - none; Jenkins - none. Reading level: 8.0. Last update: 6/17/2015. Contact: 303-724-7967 or larry.allen@ucdenver.edu. Some rights reserved. No part of this publication may be used in any commercial development or effort without the express prior written permission of the publisher. No part of this publication may be used in any derivative work without first obtaining permission from the publisher and providing acknowledgement thereof. University of Colorado hereby disclaims all liability associated with the use or adoption of the information provided herein. User shall remain liable for any damages resulting from his reliance on this information. The content is solely the responsibility of the authors and does not necessarily represent the official views of funding agencies (NIH, PCORI) or medical centers. The material provided on this infographic is intended for informational purposes only and is not provided as medical advice. Any individual should consult with his or her own physician before determining whether a left ventricular assist device is right for him or her. This work is licensed under a Creative Commons Attribution, Non-Commercial, No-Derivatives 4.0 International License.