

Living with a Left Ventricular Assist Device

LVAD: **Heartmate 3**

Linker **V**entrikel **A**ssist **D**evice



1. Scope

Left Ventricular Assist Device patients and their family.

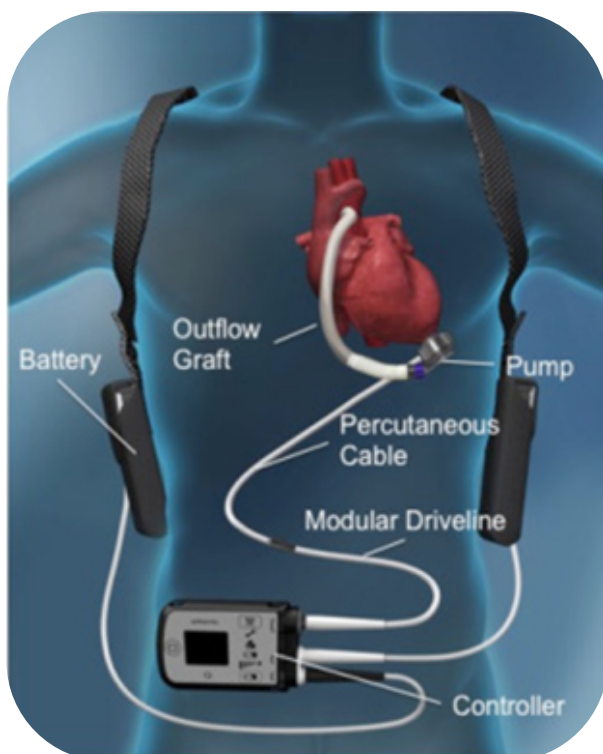
Introduction

You are already on the waiting list to get a heart transplant.

This brochure is intended to give you and your family all the necessary information about what you should know as a patient and any information you may need about life with a Left Ventricular Assist Device.

This brochure only contains objective information. Naturally, the best source of information is the medical staff of the LVAD team. Do not hesitate to contact staff if you have a question.

On behalf of the LVAD team of the OLV-ziekenhuis Aalst, we wish you a speedy recovery.



2. What is a **Left Ventricular Assist Device?**

An LVAD is an assist device consisting of an electrically powered blood pump and a line.

The electrically powered blood pump provides support to the left ventricle, to ensure the body gets a sufficient blood supply.

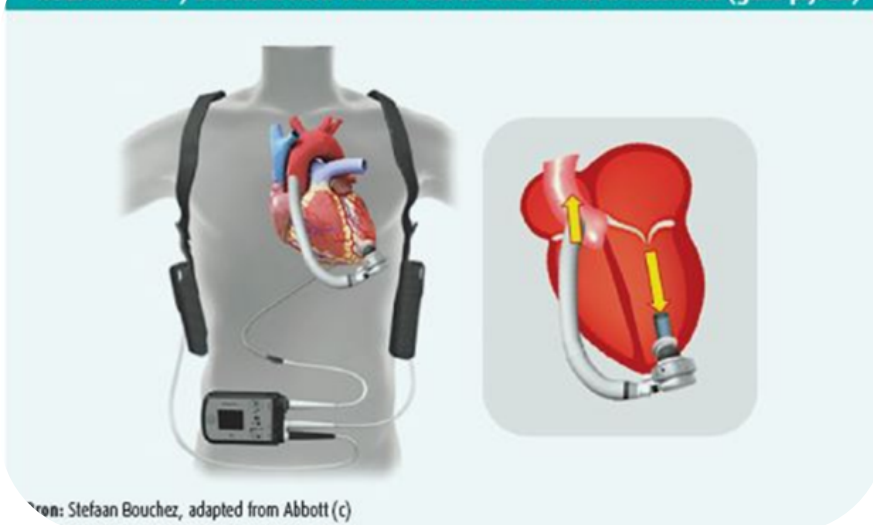
The electrically powered blood pump extracts the blood from the left ventricle and pumps it through the line back into the main artery.

To power the blood pump, an electric drive cable is connected to a controller through the skin. In turn, this controller is powered by the mains and/or the batteries.

<https://vimeo.com/686713976>



Figuur 2. Schema LVAD-implantatie (adaptatie van figuur Medgadget 'Heartmate 3') Bloedstroom vanuit het LV naar aorta ascendens (gele pijlen)



3. When do you need an LVAD implant?

To optimise your physical condition, the LVAD team have decided to implant an assist device.

The intention is to replace your poorly-functioning heart (in part) in order to (completely) reverse all the complications of your existing heart failure. In this way, you will be in better shape 'at the start' of a later heart transplant.

Initially, for the first few weeks or months, you will not be eligible for a transplant (NT listing), but, on average, you will be (re-) activated on the waiting list after 3 months.

4. Mental preparation

You probably have a lot of questions about how this type of surgery is performed and what happens after surgery.

Some patients find it difficult to deal with this emotionally. It is not uncommon for you to feel anxious, depressed and/or uncertain in the beginning. Please contact the LVAD team for help with all your questions. They can also provide you with all kinds of information and assistance related to social services, help at home, transport costs, etc.

You can also meet other LVAD patients. The social nurse can give you more information about this. The pastoral service is also always available to the patients and their families. They help you with listening to you and working with you to find meaning.

Finally, we will provide with you some websites containing articles and information about LVAD.

<http://www.lvad.nl>

<http://www.mylvad.com>

5. LVAD-team

The team consists of the following members:

- Cardiologists
- Cardiovascular surgeons
- Anaesthesiologists & Intensivists
- Heart failure nurses/Clinical transplant coordinators
- Transplant coordinators
- Ward nurses (ICU - X2 Noord)
- Perfusionists
- Physical therapists
- Dietitian
- Psychologist and social nurse



6. Introduction

You already know the cardiologist, heart failure nurses, psychologist and social nurse.

Before the implant, you will meet the

- **Cardiovascular surgeon** The surgeon will discuss the course of the operation with you.
- **Anaesthesiologist** He/she will give you information about the anaesthesia and your stay at the Intensive Care Unit.
- **Perfusionist** He/she will visit you to explain how the device works.

7. Preparing for surgery

A number of routine tests are performed prior to the surgery.

These are a chest X-ray, electrocardiogram and a blood test.

A urine and sputum sample will also be collected.

Then you will be shaven, to remove the hair from your neck to above the knee.

Jewellery, piercings and nail polish must always be removed.

8. Day of the surgery

You will be asked to brush your teeth well, rinse your mouth with disinfectant mouthwash and take a shower with a disinfectant soap.

If this requires too much effort on your part, you can ask a ward nurse for help.

After this, you will be given a surgical gown.

9. LVAD implant

The surgery itself takes about 4 to 6 hours.

As soon as the surgery is over, your family will be notified by telephone.

After the LVAD has been implanted, you will be taken immediately to the ICU, where you will be closely monitored 24/7.

10. ICU

At the ICU you will wake up slowly, usually the day after surgery. Once you are fully awake and can breathe independently, the ventilation tube is removed. It is normal for you to see many devices around you. These devices are necessary to continuously monitor and record your vital bodily functions such as heart rate, blood pressure, etc. Pain management is a priority. If you experience pain, do not hesitate to report it. To make sure you get sufficient rest during your recovery phase at the ICU, visiting hours for family are limited.

ICU visiting hours

For maximum 15 minutes 053/72 45 46

Outside these times, family members are not allowed to visit. They can call the department at the following telephone number: 053 72 45 41.

The length of your stay at the ICU depends on your physical and mental recovery.

11. X2N nursing ward

After your stay at the ICU, you will be taken to the X 2 Noord nursing ward.

Visiting hours of the X2Noord nursing ward: 14:00u tot 20:00u

Outside these times, family members are not allowed to visit. They can call the department at the following telephone number: 053 72 48 20.

The length of your stay at X 2 Noord depends on your physical and mental recovery.

12. Cardiac rehabilitation in the hospital

Cardiac rehabilitation is started immediately after the surgery (ICU). This mainly consists of breathing exercises and mobilisation in bed. If everything goes well, mobilisation of your lower and upper limbs is started.

After leaving the ICU, you will start walking at the X2 Noord nursing ward. After that, you will learn to take the stairs again and you will be given muscle-building exercises in the rehabilitation room.

13. Discharge from hospital

After extensive rehabilitation and education at the X2 Noord nursing ward, the LVAD team will prepare your discharge.

14. Checks when you are at home

Daily form

You will be asked to fill out a form each day, a formulier (Mynexuzhealth) to the LVAD team. This form includes:

Temperature - Weight - Pump Flow - RPM - Pump Output - Physical Condition

Wound care

The dressing must be checked on a daily basis.

Wound care must be carried out on the area around the electric drive cable twice a week. On Monday, wound care will be provided in the hospital. On Thursday, wound care will be provided by a home care worker.

You can take a shower just before wound care.

Medication



Compliance is very important!!

You should **NEVER** reduce or increase the dose yourself or combine the medication with other medicines. It is extremely important to strictly comply with the medical prescription of your treating physician, i.e. to be **therapy - compliant**.

Blood collection

If necessary, you will be asked to regulate your blood clotting or INR or to use the CoaguCheck yourself. You are taught to use this device at the X2 Nord ward.

15. Checks in the hospital

Blood collection

A weekly, monthly check of your blood values.

Wound care

Once a week, wound care will be provided in the hospital.

Chest X-ray

Every 3 months, an X-ray of the chest will be made.

Cardiac ultrasound

Every 3 months, an ultrasound of the heart will be scheduled,

ICD readout

Every 3 months, a read-out of your defibrillator will be performed.

16. Accessibility

Once you are **back** on the waiting list, you can be called at any time of the day or night for a heart transplant.

It is therefore very important to ensure that you can be reached 24 hours a day.

You can certainly take trips, but be sure to notify the heart failure nurse.



17. Medical fitness to operate a vehicle

After a minimum period of 3 months, the LVAD team will decide whether or not you are allowed to drive a car.



18. Important telephone numbers

You can always consult the list of telephone numbers below.

The contact persons are always at your disposal and will assist you as best they can.

| Central operator OLV Aalst | |
|--|---|
| 053/72 41 11 | |
| Secretariats | |
| Cardiology | 053/72 44 33 |
| Heart Transplant Marinelli Van Eeckhaut | 053/72 45 85 harttransplant.consult.aalst@olvz-aalst.be |
| Transplant coordinators | |
| Benny Elsen | (via central) 053/72 41 11 |
| Geert Van Gijsegem | |
| Luc Vermassen | |
| Birgit Viaene | |
| Heart failure nurses (24/24) | |
| An Beernaert | During office hours (8u until 16u00): tel 053/72 45 53 On-call service (after 16u00): ... VAD.aalst@olvz-aalst.be Hartfalen.aalst@olvz-aalst.be |
| Elly Boel | |
| Imke De Pelsmaeker | |
| Annelies Muylaert | |
| Debby Pollet | |

| Psychologist | |
|------------------------------------|------------------------------|
| Annick De Roeck Astrid Goossens | 053/72 44 53 053/72 86 61 |
| Social nurses | |
| Ann Van Elsen | 053/72 44 38 |
| Jennifer Ledegen | 053/72 85 43 |
| Ines Vroonhove | 053/72 47 49 |
| Physiotherapy | |
| Inge Du Bois | 053/72 45 76 |
| Dietitian | |
| Micheline De Deurwaerder | 053/72 48 15 |
| Anneleen De Pauw | |
| ICU | |
| 053/72 45 46 | |
| X2N nursing ward | |
| 053/72 48 20 | |
| Pastoral service | |
| 053/72 44 01 | |
| Palliative service | |
| 053/72 46 65 | |

Disclaimer

The information in this brochure is of a general nature and is intended to give you a general picture of the care and explanations that you can expect. In every situation, and therefore yours too, other advice or procedures may be appropriate. Therefore, this brochure does not replace the information that you receive from the physician in charge of your treatment, which takes account of your specific situation. If you have questions after reading this brochure, write them down and discuss them with the physician in charge of your treatment.