

Going Home with Your VAD

While living at home with your ventricular assist device (VAD), it is important that you follow these instructions. You must know and understand the warnings and cautions that go along with having a VAD. Be sure that you are aware of the instructions for safe VAD function.

Daily Care

Dressing Changes

1. Change the driveline exit site dressing at least once a day. Be sure to use the sterile technique in the attached instruction sheet.
2. Keep the driveline from moving around with tape or an anchoring device discussed with you in the hospital. This prevents infection.
3. Look at the driveline exit site at least once a day. Do this during the dressing change. Look for signs of infection. Call your Heart Failure doctor or VAD coordinator for any of these symptoms:
 - Redness
 - Swelling
 - Drainage (blood or pus)
 - New drainage where there was not any before
 - Increased tenderness during dressing change
 - Foul odor
 - Increased warmth at the site
 - Temperature of 100° F

HeartMate

Each day, write these down on your flowsheet:

- Temperature
- Weight
- VAD speed (rpm)
- Flow (L/min)

- Pulsatility Index (PI)
- Power (in watts)
- Perform a system check (“self-test”) on the controller by pressing and holding down the battery button until the test begins.
- Check latch guard on the back of the controller to make sure it is closed (in the closed position the red button will not be showing)
- For HeartMate3 check the modular connection to make sure it is in the locked position
- Inspect cords, cables, connectors, pins, and sockets for dirt or damage

HeartWare

Each day, write these down on your flowsheet:

- Temperature
- Weight
- VAD speed (rpm)
- Power (in watts)
- Flow (L/min)
- Look at the driveline connector with cover to make sure it is tight to the controller
- Inspect cords, cables, connectors, pins, and sockets for dirt or damage

Every Night

- Check the controller connections to the driveline to make sure they are secure.
- Keep a working flashlight at bedside.
- Back up controller should be within reach in case of an emergency.

HeartMate

Always connect to the Power Module (PM) or Mobile Power Unit (MPU) for sleeping or

when there is a chance of sleep. Only change one connection at a time.

HeartWare

- Connect controller to 1 battery and AC adapter to sleep. Only change one connection at a time.
- Look to see that the AC adapter cord is giving power to the controller. You should see the AC power symbol on the controller.

Weekly

- Check the batteries for damage. Do not use batteries that appear damaged.
- Check your battery power leads pins to see if there are any bent pins while maintaining one power lead connected to power always. If there are bent pins, please tell your VAD coordinator.
- Clean the **outside** surfaces of your VAD system as needed with a damp cloth. Do not use cleansers or chemicals to clean your VAD system.
- Check your wearable and carry items (vest, belt, travel bag, etc.).
- Rotate your batteries to keep them all fully charged. If you have a problem with a battery mark it, set it aside, and tell your VAD coordinator.

HeartMate

You will need to clean the metal battery terminals and contacts inside the clips and battery charger with a lint free cloth or with a dampened (non-dripping) alcohol swab. Allow to dry completely before use.

Every 6 Months

HeartMate

- Charge battery in back up controller
- Change batteries (3 AA) in the mobile power unit. You can purchase

AA batteries at any store but do not use rechargeable batteries.

Other

You must know and understand the warnings and cautions that go along with having a VAD. Be sure that you are familiar with the guidelines for safe VAD operation.

- **No MRI**
- **No Chest Compressions**

System Upkeep

- **Do not bend, twist, or kink your driveline.**
- **Keep water/moisture or debris from your controller. Do not get your driveline caught on door handles, drawers or anything that could snag it.**
- Do **not** use a tool to tighten any connections.
- Be careful around computers and TVs due to static electricity.
- Do **not** clean or try to fix any **connections**. If there is something wrong, call the on call VAD coordinator.
- Do not plug AC adapter cord, power module, or mobile power unit into an outlet controlled by a wall switch.
- **Remember:** At least one controller port must be connected to a power source (battery, AC adapter) always. Disconnecting both power sources at the same time will cause the pump to stop.

Activities

- **Do not take baths or go swimming.**
- You may shower when your doctor says that it is okay. **Do not take showers without using the shower kit.**
- **Avoid** any activity that may cause you to go under water. This can cause pump failure.

- **Do not play contact sports while you have the VAD.**
- Avoid jumping up and down.
- Do not lift more than 10 pounds for at least 8 weeks.
- No vacuuming.
- No driving until approved by your doctor/surgeon. Sit in the back seat to prevent possible trauma to your chest bone from airbags or the dashboard until cleared by your doctor.
- Keep the controller next to you while you sleep. When you go to sleep, you need to be on the AC power.
- Do not sleep on your stomach.

Pain

When you go home, you may feel sore, but you should not have a lot of pain. Your doctor may order medicine to relieve any pain that you may have. Take these as ordered.

Call your doctor or VAD coordinator right away for any new or worsening pain.

Lab Tests

You are on a medicine called Coumadin[®] (warfarin). It is a blood thinner. You need to have blood tests done at your local lab you must have a vein puncture rather than a fingerstick. Fingerstick testing is not recommended by the VAD team. The blood test is monitored by the VAD team. The blood test drawn is called INR (international ration). This keeps track of how thin your blood is.

Diet

- Follow your heart healthy diet given to you by your dietician.
- Keep sodium intake to 2000 mg total for one day.
- Keep total fluid intake to 2000 ml per day.

- If you have diabetes, be sure to talk about nutritional supplements, carbohydrate counting and meal planning with your doctor.

Smoking and Tobacco Products

You should not smoke. Smoking and second-hand smoke causes your arteries to tighten and will decrease your blood flow. Avoid places where you are exposed to second hand smoke. This makes your pump work harder. Smoking and second-hand smoke also makes it harder to fight off infection. If you need help to quit smoking please contact your VAD team, your heart failure doctor or primary care doctor.

Alcohol

Limit your alcohol use. It can get in the way or interact with certain drugs. Alcohol makes you lose fluid from your body. It can make you dehydrated. Your VAD needs enough blood supply to work best. It is important that your non-alcoholic routine be maintained. Drinking alcohol may impair your judgment and ability to react to system alarms.

Weather

Avoid being active in very hot or cold weather. If you go outdoors during very hot or humid weather drink lots of water and non-alcoholic drinks. Before going outside in the cold, avoid kinking or bending your VAD cables when you put on heavy coats or jackets.

Home Safety

When you are at home, you and your caregiver need to be sure that your surroundings are safe. Please minimize area rugs or tripping hazards. Please use a mat in the bathtub if used as a shower to prevent falling. If you have any questions or concerns about the safety of your home, call your VAD coordinator. If you are not

comfortable testing your home's electrical system, you can hire an electrician to do it for you.

Leaving Home

When leaving home be sure to take these items with you:

- Backup system controller
- Extra batteries
- For HeartMate: extra clips.
- DC adapter cable (car trips)

Traveling

There are no restrictions for airplane (fixed-wing aircraft), train or bus travel. Please notify your VAD coordinator prior to any travel. You need permission from your doctor before you travel by air or train. Airline or train security may need to be called. You may need documentation about your VAD. Do **not** go through the security arch but rather have them use the wand. Your VAD coordinator or heart failure doctor on call will give you information about the VAD center nearest to your destination. That hospital's VAD team may be notified of the dates you will be in the area. You need to put the equipment in a suitcase that will fit under the seat in front of you or in the overhead bin. Your VAD will not interfere with the radar system.

To prevent loss, you must carry these items with you.

HeartMate:

- Batteries and clips
- Backup controller
- Battery charger
- Power Module or Mobile Power Unit
- DC adapter cable (car trips)

HeartWare:

- AC adapter cable
- Battery charger
- Backup controller
- Batteries
- DC adapter cable (car trips)

Returning to Work

You cannot go back to work until your doctor says you can.

Phone Numbers

Call the VAD coordinator during weekday hours of 8 am-4:30 pm at the office numbers below:

- John Blabaum, APNP
608-261-0962
- Anne Fischer, APNP
608-263-4786
- Polly Jewel-Ripp, BSN, RN, CCTC
608-265-7589

Outside business hours or for urgent needs you can contact a VAD coordinator by calling paging at **608-263-6400** and ask for the **VAD coordinator on call** any time of day. You may also call the **Heart Failure attending on call** (after hours, weekends, holidays) at **608-263-6400** with any concerns. If you live out of the area, call **1-800-323-8942**.

Call 911 with any signs of stroke.

- Changes in speech
- Numbness or tingling in one extremity only
- Weakness or unable to move one side of body
- Uneven smile

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 1/2019 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#7541

Call your heart failure doctor or VAD coordinator if:

- The VAD flow rate is below the threshold given to you.
- Power higher than threshold given to you.
- For HeartMate if your PI is less than 2 or greater than 8.
- You gain or lose more than 2 pounds in 1 day or 5 pounds over 7 days.
- No bowel movement in 2 consecutive days.
- You see any swelling in your ankles or changes in your waistline; this may be a sign of water retention.
- Have any signs of infection at the driveline site or concerns about appearance of driveline site. Temperature > 101.5°F.
- Have any VAD concerns including alarms or VAD failure.
- Have pain at the driveline site or VAD itself.
- Go to the Emergency Room and/or admitted to a hospital.
- Call your Heart Failure doctor or VAD coordinator right away if you notice any changes in how the VAD feels, work sounds, or if you feel different.

An Emergency happens any time the heart pump cannot pump enough blood. Call 911 for all emergencies. Make sure 911 is available and works in your area before relying on it. When to call 911:

- Loss of power to the pump
- Broken wires
- Damage to the pump motor or system controller
- Red Heart Alarm, High Priority Alarm or pump stoppage

In an emergency: Stay calm....

If the pump is running:

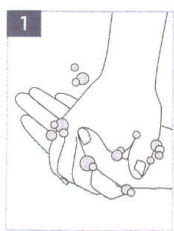
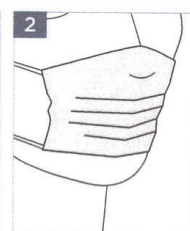
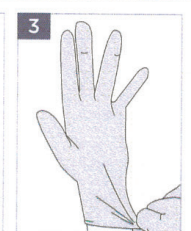
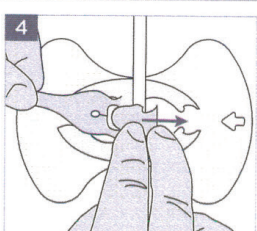
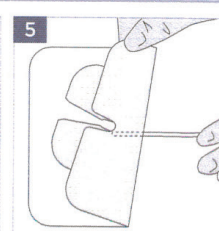
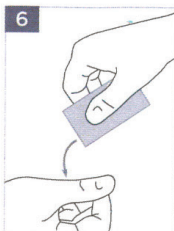
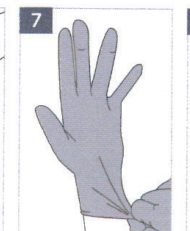
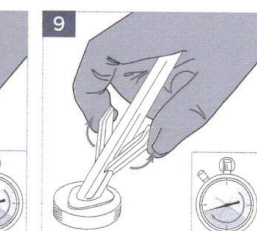
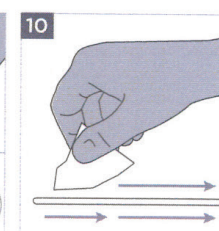
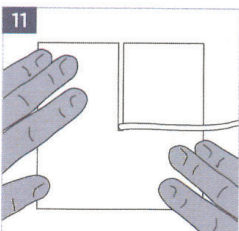
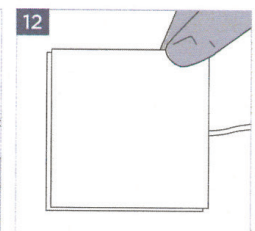
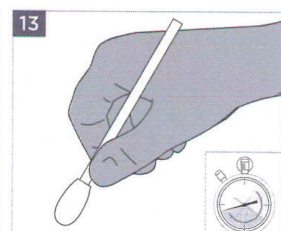
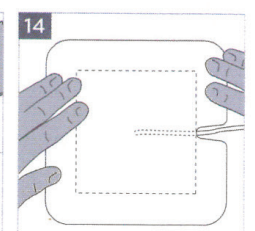
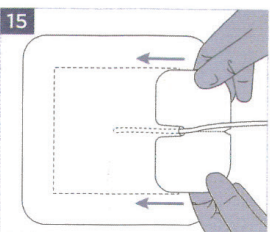
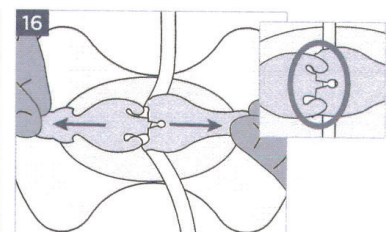
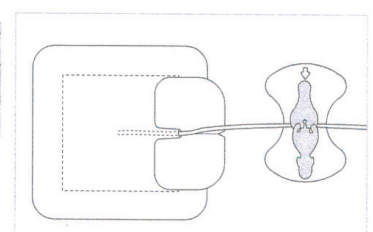
- Check all cable connections.
- Reconnect any loose or disconnected cables.
- Check power source and change power source if needed.
- Call VAD coordinator, Heart Failure doctor or “911.”
- Refer to trouble shooting guide.

If the pump is not running, call 911 right away.

- Check connections, reconnect lose or disconnected cables, change power source.
- Refer to trouble shooting guide.
- Switch to back-up system controller if indicated and a caregiver is present.
- One family member/friend may need to ride in the ambulance with you to nearest hospital.
- **Make sure that emergency backup supplies are with you.**
- Someone needs to call your Heart Failure doctor to tell us you are coming to the nearest hospital. Call 608-263-6400 and ask for the on-call Heart Failure doctor.

Daily LVAD Driveline Management Tray

For in-patient care: please follow facility dressing policy in addition to the following instructions.

				
Wash hands.	Apply mask to self. Apply mask to patient.	Put on clean gloves.*	Unlatch line from securement device.	Remove old dressing. Remove gloves.
				
Sanitize hands with sanitizer packet provided.	Put on sterile gloves.*	Prep a wide area with ChloraPrep® applicator, using 30 second gentle friction scrub, moving from driveline outward. Allow to dry completely.	Repeat prep with second ChloraPrep applicator. Allow to dry completely for 1-2 minutes.	Use gauze to hold driveline while cleaning it with saline wipes, working away from the exit site . Dry with dry gauze.
				
Apply split gauze over insertion site with notch perpendicular to driveline.	Apply second gauze over insertion site.	Apply skin prep to areas around driveline where dressing will be placed. Allow to dry completely for 1-2 minutes.	Center dressing over insertion site and apply.	
				
Apply closure piece under driveline and over edge of dressing.	Apply securement device, as needed.			

*Note: gloves are not included in kit.

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University of Wisconsin Daily LVAD 0724-17
DM420P (082217)