DAILY DIARY
FOR PATIENTS

Medtronic HVAD™ System

Medtronic
Further, Together

Patient Information

Name: _____

Phone number: _____

Date of implant: _____

Hospital Information

Name: _____

Physician: _____

Phone number: _____

VAD team/contact person: _____

Phone number: _____

Next Appointments

Date & time: _____

Date & time: _____

Date & time: _____

Reminder: Please bring your diary with you to each regular clinic visit.

MONITORING YOUR PARAMETERS **WHILE ON THE HVAD SYSTEM.**

Your VAD team may ask you to use this diary to track your blood pressure, INR levels, daily weights, driveline exit site status, and HVAD™ Pump parameters. It's important to follow your VAD team's instructions on how to complete this diary and when to report changes in these parameters.

The VAD team recommendations are (e.g., INR, blood pressure, dressing changes):

Call your VAD team when:

MONITORING YOUR BLOOD PRESSURE **WHILE THE HVAD PUMP IS IMPLANTED.**

Managing blood pressure may reduce the risk of stroke. Your clinician should teach you how to check your blood pressure. Be sure to talk to your clinician to understand what your expected blood pressure is and what to do if your blood pressure is too high or too low.

What is blood pressure and pulse?

Your heart creates pressure to pump blood through your arteries and veins to nourish your body. The pressure in the arteries is called "blood pressure." Your blood pressure can be measured several ways and is normally written as two numbers (e.g., 120/60 or 120 "over" 60). When the heart beats, there is a sudden push of blood which is called your systolic blood pressure (SBP). The SBP is the first number, or 120, as noted in the example. When the heart relaxes, the blood flow decreases and that is what we call your diastolic blood pressure (DBP). This is the second number, or 60, as noted in the example. In addition to the force of blood flow through your vessels, a heart rate or "pulse" is the number of times the heart beats in a minute. A pulse can be felt in different places on your body, like your wrist. Normal heart rates vary from person to person.

Patients who have a VAD may have trouble feeling a pulse or may not be able to feel a pulse at all — this is normal for VAD patients. The reason for the weaker pulse is that blood being pumped by the VAD is more constant (like the water coming out of a garden hose) than blood being pumped by your heart. When listening to this sound with a stethoscope, it will sound like a constant "hum."

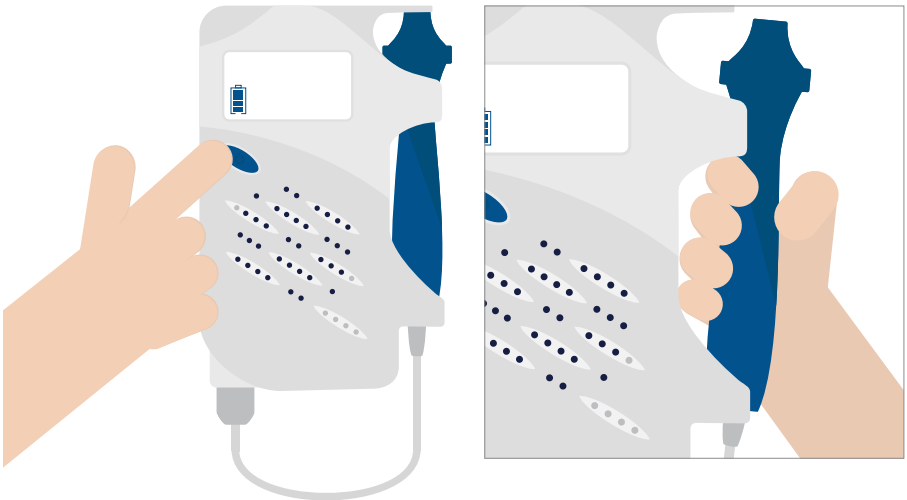
You may hear nurses describe your blood pressure as only one number, the mean arterial pressure (MAP). Since it may not be possible to feel or hear your pulse the normal way, you may need to use a doppler to hear it.

Taking your blood pressure with a manual blood pressure cuff and doppler

Find your pulse using a doppler:

- Place conduction gel on the inside of the bend in your elbow. or on the inside of your wrist.
- Turn on the doppler and remove the wand from the holder. **(See Figure 1)**
- Place the end of the doppler's wand in the conduction gel on elbow or wrist.
- Slowly move the wand back and forth until you hear a "swishing" sound.
  - It will sound like a repeating "swish-swish" or can be a continuous "whooshing" sound.
  - The sound should be distinct and not caused by movement of the wand.

Figure 1



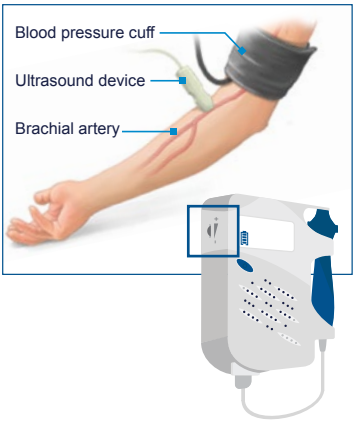
Now, put on the blood pressure cuff.
(See Figure 2)

- Place the blood pressure cuff above your elbow on your upper arm.
- The pressure gauge should be facing forward.

Now find your pulse again using the doppler (it's OK to ask for help with holding the equipment) before you inflate the blood pressure cuff.

When you are ready to inflate the blood pressure cuff:

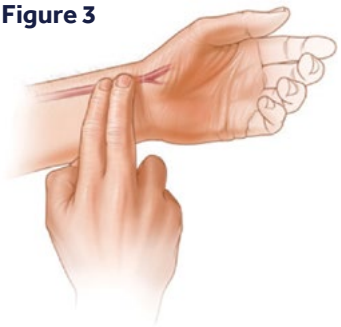
Figure 2



- Turn the round valve located next to the bulb to the right to close it.
- Squeeze the bulb until you don't hear the pulse anymore — then squeeze two more times.
- Now slowly turn the valve to the left and let air out of the cuff.
- Watch the needle slowly move from higher numbers to lower numbers.
- Listen for the return of the pulse (swishing sound) as the blood pressure cuff deflates.
- When you hear the pulse (swish sound) return, the number that the needle is pointing to is the number that you should record in your daily diary.
- This number is called the mean arterial pressure (MAP).

How do you check for a pulse?

Figure 3



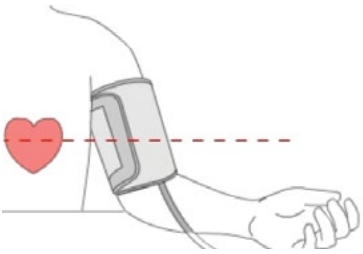
Gently place your index and middle fingers on the inside of your wrist near the base of your thumb as shown **(See Figure 3)**. Use a light touch. Do not press down hard or you will lose the ability to feel your pulse. Do not use your thumb to check for a pulse because it has its own pulse.

Depending on whether or not you are able to feel a pulse, your clinician will provide instructions on whether you should use only an automatic blood pressure cuff or a manual cuff and doppler to check your blood pressure.

Preparing to take your blood pressure

Take blood pressure around the same time as you take your medications.

Figure 4



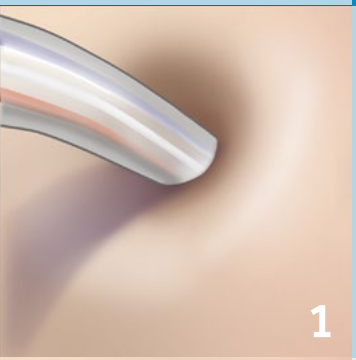
- Gather all of your equipment:
  - Blood pressure cuff
  - Doppler (when necessary)
  - Conduction gel (when necessary)
  - Daily diary
  - Pen or pencil
- Find a quiet place.
- Roll up the sleeve on your arm or remove any tight-sleeved clothing.
- Rest in a chair next to a table for 5 to 10 minutes prior to taking blood pressure.
- Sit up straight with your back against the chair, feet on the floor, and legs uncrossed.
- Rest your forearm on the table with the palm of your hand facing up and your upper arm level with your heart. **(See Figure 4)**

HOW DOES MY DRIVELINE EXIT SITE LOOK?

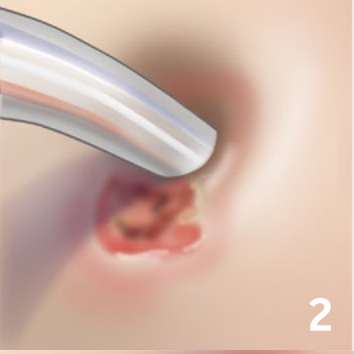
Check the exit site for signs of infection as part of every dressing change.

Record the site score (1–3) in your diary.

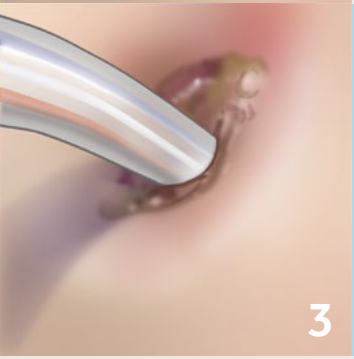
1. Normal driveline exit site
2. Superficial infection
3. Deep infection



Normal driveline exit site:
No redness, tenderness, or drainage. Skin is tight around the driveline.



Superficial infection:
Purulent (pus) drainage, tenderness, and redness spreading around the exit site. Skin may be pulling away from the driveline.



Deep infection:
Increased drainage and redness, odor, and painful. Skin pulled away from the driveline.

Complete the fields below.

		Patient Parameters				HV	
		Blood Pressure	INR	Weight	Driveline Exit Site	Flow	Speed
Date	Time (A.M./P.M.)	SBP/DBP or Doppler MAP		Lbs/kg	Status 1 to 3	L/min	RPM
05/01/21	8:00 AM	75	2.3	68 kg	1	4.2	2500
05/02/21	8:30 AM	78	2.2	67 kg	1	4.4	2500

EXAMPLE TEXT

AD Pump Parameters				Additional Remarks
Power	Peak	Trough	Alarms	
Watts	L/min	L/min	Y/N	Record any changes or concerns (e.g., body temperature, driveline exit site, change in health, pain, system components, alarm details)
3.2	5.8	3.5	Y	1 Low Flow alarm when I got up.
3.3	5.5	3.2	N	Red light on battery charger. Called clinic.

EXAMPLE TEXT

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Watts	L/min	L/min	Y/N	

Additional Device Information

The HeartWare™ HVAD™ System assists a failing heart and relieves the symptoms of advanced heart failure. It may be used in advanced heart failure patients whether or not a subsequent heart transplant is planned. You should not receive an HVAD System if you are pregnant or cannot tolerate blood thinning medications.

Implantation of the HVAD System requires major surgery. Risks associated with the implant surgery and with HVAD System use include, but are not limited to, death, stroke, device malfunction, blood clots, bleeding, other types of heart failure, infection, red blood cell destruction, and total body infection. Managing your blood pressure may reduce the risk of stroke.

The HVAD System includes external components that connect to and provide power to the heart pump inside your body. After receiving an HVAD System, you will have some limitations. You will not be able to swim, or otherwise submerge external components in water. You will not be able to shower until your clinician tells you it is safe to do so. If you receive permission to shower, you must use the HeartWare shower bag. You may need to modify or perhaps avoid interactions with some sources of electromagnetic interference, electric or gas-powered appliances, and tools. Magnetic resonance imaging (MRI) should not be used, as it could cause severe harm to you and the pump. You must keep mobile phones at least 20 inches (50 centimeters) away from the controller, as mobile phones may interfere with controller operation.

Proper use and upkeep of the HeartWare HVAD System is required to keep the system working well. Never remove both power sources (batteries or power adapters) from the controller at the same time since this will stop the pump, which could lead to serious injury or death. At least one power source must be connected to the controller at all times. Always keep a spare controller and fully charged spare batteries available at all times in case of an emergency. Do not disconnect the driveline from the controller or the pump will stop. Avoid kinking or twisting your driveline.

This treatment is prescribed by your physician. This treatment is not for everyone. Please talk with your doctor to see if it is right for you. Your physician should discuss all potential benefits and risks with you. Although many patients benefit from the use of this treatment, results may vary.

See the HeartWare HVAD System Patient Manual for detailed information regarding instructions on operating the HeartWare HVAD System and on necessary medical care. If you have any questions after reading the manual, please ask your clinician.

Caution: Federal law (USA) restricts these devices to sale by or on the order of a physician.

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