EMS Guide
January 2016/17

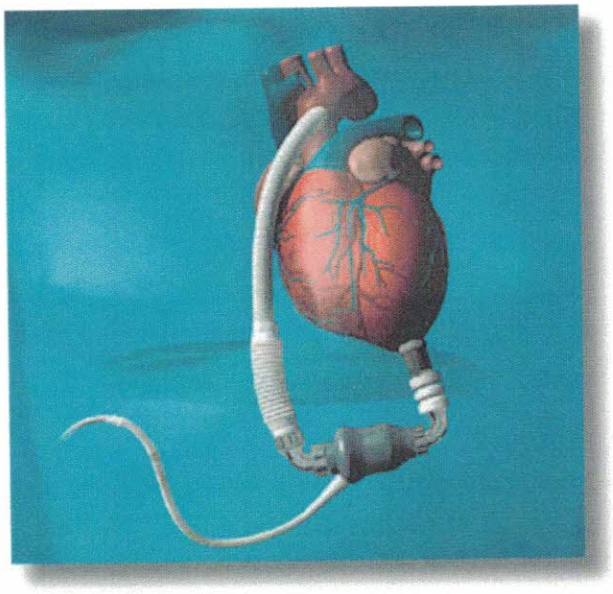
MECHANICAL
CIRCULATORY
SUPPORT
ORGANIZATION

This guide is produce by MCSO –
The Mechanical Circulatory Support Organization
It is produced by VAD Coordinators from some of the largest and most successful VAD implantation hospitals in the US. It has been vetted by experts on VADS in Air Medical Transport and EMS. It should not replace the operator manual as the primary source of information.

Questions and Answers
Ventricular Assist Device

What is a Ventricular Assist Device (VAD)?

A ventricular assist device (VAD) is a mechanical pump that's used to support heart function and blood flow in people who have weakened hearts.



How does a VAD work?

The device takes blood from a lower chamber of the heart and helps pump it to the body and vital organs, just as a healthy heart would.

What are the parts of a VAD?

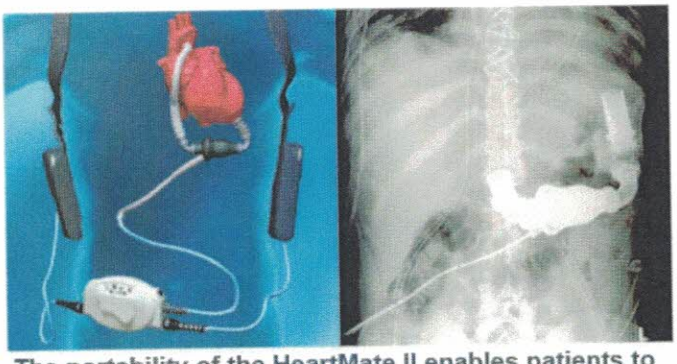
The basic parts of a VAD include: a small tube that carries blood out of your heart into a pump; another tube that carries blood from the pump to your blood vessels, which deliver the blood to your body; and a power source.

What is the power source?

The power source is either batteries or AC power. The power source is connected to a control unit that monitors the VAD's functions. The batteries are carried in a case usually located in a holster in a vest wrapped around the patients shoulders.

What does the control unit or controller do?

The control unit gives warnings, or alarms, if the power is low or if it senses that the device isn't working right. It is a computer.



The portability of the HeartMate II enables patients to resume many of their normal daily activities.

Color Coding System

MOST patients have a tag located on the controller around their waist that says what type of device it is, what institution put it in and a number to call. Most importantly is the color of the tag – it matches this EMS Field Guide and allows you to quickly locate the device you are caring for.

HEARTMATE III

HEARTMATE II

HEARTWARE

JARVIK 2000

HEARTMATE XVE

THORATEC PVAD/IVAD

FREEDOM DRIVER
Total Artificial Heart

Patient Management For VADs

1. Assess the patients airway and intervene per your protocol.
2. Auscultate Heart Sounds to determine if the device is functioning and what type of device it is. If it is continuous flow device, you should hear a "whirling sound".
3. Assess the device for any alarms.
4. Look on controller usually found around the waist of the patient and to see what color tag and device it is.
5. Match the color on the device tag to the EMS Guide.
6. Intervene appropriately based on the type of alarm, tag (device) and EMS Guide.
7. Start Large Bore IV.
8. Assess vital signs – Use Mean BP with Doppler – with the first sound you hear is the Mean Arterial Pressure (MAP).
9. If no Doppler, use the Mean on the non invasive blood pressure machine.
10. Transport to closest VAD center. Call the number on the device to get advice.
11. Bring all of the patients equipment.
12. Bring the significant other if possible to act as a expert on the device in the absence of consciousness in the patient.