

# Adult Veno-Venous ECMO as a Bridge to Lung Transplant (VV ECMO)

Your loved one is on VV ECMO. ECMO stands for: Extra Corporeal Membrane Oxygenation.

## What do these terms mean?

**Extra Corporeal:** outside the body

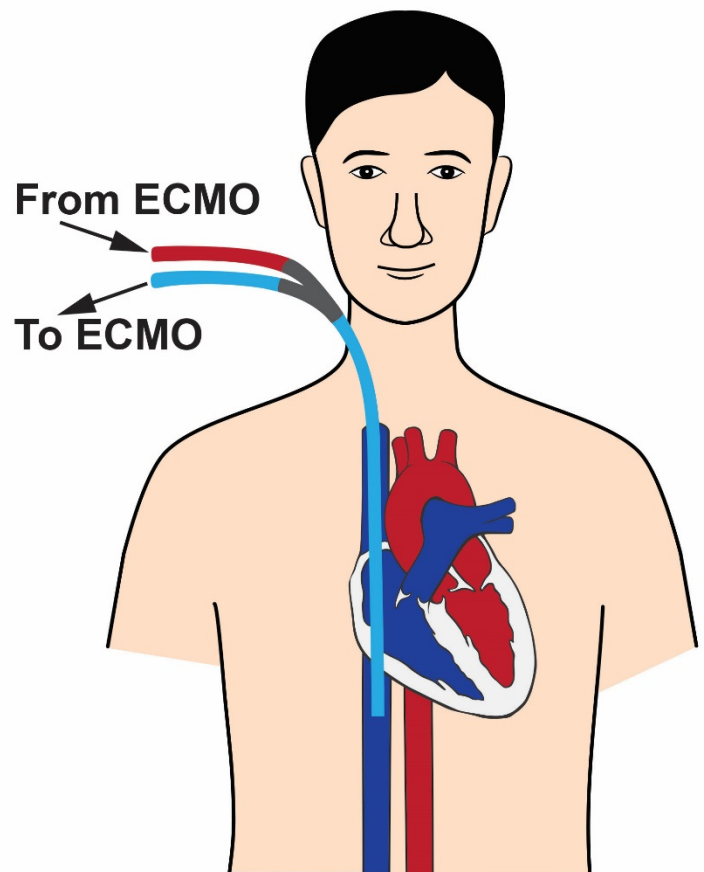
**Membrane:** artificial lung

**Oxygenation:** adding oxygen to the blood

## What Is VV ECMO?

VV ECMO is a support system that is used when you are waiting for your lung transplant and have very little or no lung function.

- You will have one ECMO tube (cannula) that has two sides. This cannula is a large tube that the doctor will place like an IV into a vein in the neck and enters the heart.
- Blood flows from this vein, through one side of the cannula into the ECMO machine.
- The machine adds oxygen to the blood and removes carbon



Adapted from: Heart Circulation Diagram  
([https://upload.wikimedia.org/wikipedia/commons/7/73/Heart\\_circulation\\_diagram.svg](https://upload.wikimedia.org/wikipedia/commons/7/73/Heart_circulation_diagram.svg)) by Patrick J. Lynch, medical illustrator, C. Carl Jaffe, MD, cardiologist [CC BY 2.5 (<https://creativecommons.org/licenses/by/2.5/>)], via Wikimedia Commons

dioxide. The machine then returns the blood through the other side of the cannula into the same vein.

### **What should I expect with ECMO?**

An ECMO specialist will be a member of your care team. The specialist will check on you and the ECMO machine several times a day. They are also available anytime you need them to answer questions or discuss any concerns you may have with ECMO.

Below are some things to expect while you are on ECMO:

- You will be awake during the day so that you can participate in physical therapy exercises.
- If you had a breathing tube before ECMO, it may be removed once you are stable. Then, you will no longer need to be on the ventilator. ECMO will be your lung support.
- Our goal is for you to maintain your strength and mobility by continuing activity such as walking in the halls. Initially, you will start by standing at the bedside and then progress to walking. An ECMO specialist will be with you during these times as well as a nurse and physical therapist.
- You will have a daily chest x-ray.
- We will take blood for lab work from an IV, so there are no pokes.
- We will give you medications for pain control, sedation (sleep), and blood thinning for the ECMO machine.



- You may have bleeding at the ECMO cannula site, any IV site, or wound. This is normal.
- We may need to give blood transfusions, but the transplant team monitors the need for this very closely.
- You will remain on ECMO until you receive your transplant. Some people remain on ECMO for a short time after they receive their new lungs.

### **What are the risks of ECMO?**

The doctor will discuss risks with you. Some of the more common risks are bleeding, infection, and potential equipment failure. We monitor for these very closely.

### **What can I do or what can my loved ones do?**

This is the really hard part. We do not know how long it will take until you receive new lungs. We know that this is a very stressful time for you. The following steps may help you cope with being on ECMO:

- Ask questions. We will answer the best we can or find you the best person to speak with.
- Your friends and family can visit with you and offer support and encouragement. They can bring you pictures, cards, and other things to help keep your spirits up.
- You can listen to music, watch TV, use a computer, read, or have someone read to you. You may be able to sit in a chair at the bedside.

### **What is the mailing address for the ECMO Program?**

F5850 UH South, 1500 E. Medical Center Drive

Ann Arbor, MI 48109-5282

[www.med.umich.edu/ecmo](http://www.med.umich.edu/ecmo)



ECMO Program  
Veno-Venous ECMO as a Bridge to Lung Transplant (VV ECMO)

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