

Infant Veno-Venous Extra Corporeal Membrane Oxygenation (VV ECMO)

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

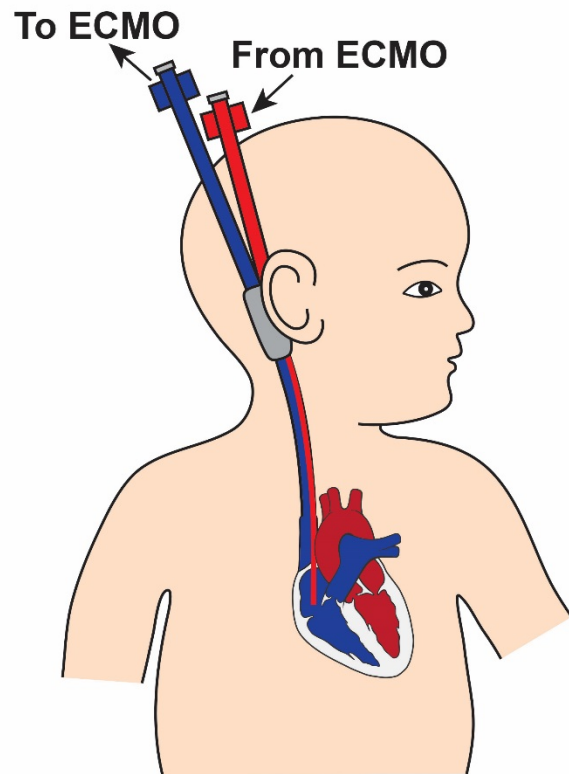
What do these terms mean?

Extra Corporeal: outside the body
Membrane: artificial lung
Oxygenation: adding oxygen to the blood

What Is VV ECMO?

VV ECMO is a support system for lungs that cannot breathe on their own.

- Your baby will have one ECMO tube (cannula) that has two sides. This cannula is a large tube that the doctor will place, through a small incision, into a vein in the neck and it will enter 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 dioxide. The machine then returns the blood through the other side of the cannula into the same vein.
- The doctor may order that the respiratory therapist turn down the ventilator (breathing machine) to allow the lungs to rest. ECMO does not heal the lungs, but allows time for the lungs to get better.



Adapted from: Heart Circulation Diagram
(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

What should I expect with ECMO?

An ECMO specialist will be a member of your baby's care team. The specialist will be at your baby's bedside to monitor and manage the ECMO machine. They are available anytime you need them to answer questions or concerns with ECMO.

Below are some things to expect while your baby is on ECMO:

- Your baby may be on medicine to make them sleep or allow them to wake up, depending on their treatment plan.
- Your baby 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 your baby medications for pain control, sedation (sleep), and blood thinning for the ECMO machine.
- Your baby may bleed at the ECMO cannula site, any IV site, or wound. This is normal.
- Your baby may appear swollen at times. Eventually this should go away.
- We may need to give blood transfusions, these are not uncommon.
- Your baby's time on ECMO will vary. Every patient is different. Despite our best efforts, some babies will not recover.



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 to help my baby?

This is the really hard part. There may be no changes in your baby's condition for days or possibly weeks. We know that this is a very stressful time for you.

The following steps may help you cope with having a baby on ECMO:

- Get rest, take breaks away from the Intensive Care Unit and hospital, and eat regularly. You will need to make decisions about your baby's medical care, which you can do best if you are rested and alert.
- Ask questions. We will answer the best we can or find you the best person to speak with.
- You can bring drawings from siblings or recordings or videos of them for your baby.
- Interact with your baby. You can read to them, play music, or just talk to them.
- Ask their nurse about other things you can do or bring for them.

How will I know when my baby no longer needs ECMO?

The medical team will decide when your baby can be taken off ECMO. When we feel that your baby is showing signs of improvement, ECMO support may be turned down, and we will discuss a "trial off" ECMO. This means that we will stop ECMO support for a short time to see if your baby's lungs can work without ECMO support. If they no longer need ECMO, we will remove the cannula. Do not be discouraged if your baby does not do well with their trial off. Most babies need more than one trial.

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



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