

Learning About ECLS

The basics of extracorporeal life support

This handout gives basic information about extracorporeal life support (ECLS) at Harborview Medical Center.

What is ECLS?

ECLS is short for *extracorporeal life support*. It is a **short-term** form of life-support. When someone is placed on ECLS, a special machine does the work of their heart or lungs, or both. ECLS is also called ECMO or *extracorporeal membrane oxygenation*.



The goal of ECLS is to support a patient's heart and lungs so that their body can heal.

When is it used?

ECLS is used **only** when:

- Other treatments have not improved the condition of the patient's lung or heart, or both organs.
- There is still a chance that the patient can recover.

The goal of ECLS is to give these organs time to rest and hopefully improve while doctors treat the illness that is causing them to fail. Anyone who needs ECLS is very sick and may die, even with this added support.

What are the risks of ECLS?

There are risks and problems that can occur with ECLS. Your doctor will talk with you about all the risks, such as:

- Bleeding
- Infection
- Blood clots
- Equipment problems
- Stroke
- Death

Is ECLS painful?

The tubes that connect to the machine may be uncomfortable, but the treatment itself does not cause pain. Your loved one will receive pain relief medicine and *sedation* (medicine to help them relax). This will help keep them comfortable. It will also keep them from getting too restless or pulling on the tubes.

How will my loved one be cared for while on ECLS?

- Your loved one's ECLS care will be supervised by our **Intensive Care Unit (ICU) doctors and surgeons** who are trained in ECLS therapy.
- An **ECLS operator**, who is trained in managing the machine, will be at your loved one's bedside to monitor the system.
- An **ICU nurse** with special training in ECLS will provide bedside care.

Other ECLS Care Information

While on ECLS, your loved one may receive some or all of these other treatments:

- Feeding tube
- IV nutrition
- Labs
- Dialysis
- Heart Pump
- Ultrasounds
- Blood products
- X-rays

How long will my loved one be on ECLS?

A patient can be on ECLS for days to weeks. It is used until the patient improves or their care team decides it is no longer helpful.

ECLS is not a cure. It gives time for the heart and lungs to recover, if possible. If the organs do not recover, ECLS will be stopped, and the care team will shift to focusing on your loved one's comfort.

Some families feel that ECLS does not agree with their loved one's care goals. If you feel that this may be true for your loved one, please talk to the ICU team.

Every ECLS patient is seen by our Palliative Care team. Palliative Care is a medical specialty that can provide extra support when someone has a serious illness.

What can I do for my loved one?

We encourage you to be involved, be present at rounds and the nursing shift report, ask questions, and tell us your concerns.

To help make your loved one's ICU room feel less like a hospital room, we encourage family members:

- To ask for and fill out a "Get to Know Me" poster
- To ask for the best places to hang photos, cards, and other items

While your loved one is on ECLS, you can:

- Hold your loved one's hand
- Talk to your loved one
- Read aloud to your loved one

Your loved one may not remember much of what happens during the time they are on ECLS. They may have questions when they wake up. Please ask us questions so that you can help provide answers and reassurance to your loved one when they awaken.

Self-care

It can be very stressful to have a loved one in the ICU. We encourage you and your family members to take good care of yourselves during your loved one's hospital stay.

Where can I learn more?

To learn more, please visit the "Family's Role" page of the Extracorporeal Life Support Organization website:

www.elseo.org/Resources/FamilysRole.aspx

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Harborview Palliative Care and Supportive Care Services: Call 206.744.6416 weekdays from 8 a.m. to 4 p.m.