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Critical Care

Also called: ICU, Intensive care

What is critical care?

Critical care is medical care for people who have life-threatening injuries and illnesses. It usually takes place in an intensive care unit (ICU). A team of specially-trained health care providers gives you 24-hour care. This includes using machines to constantly monitor your vital signs [<https://medlineplus.gov/vitalsigns.html>] . It also usually involves giving you specialized treatments.

Who needs critical care?

You need critical care if you have a life-threatening illness or injury, such as:

- Severe burns [<https://medlineplus.gov/burns.html>]
- COVID-19 [<https://medlineplus.gov/covid19coronavirusdisease2019.html>]
- Heart attack [<https://medlineplus.gov/heartattack.html>]
- Heart failure [<https://medlineplus.gov/heartfailure.html>]
- Kidney failure [<https://medlineplus.gov/kidneyfailure.html>]
- People recovering from certain major surgeries
- Respiratory failure [<https://medlineplus.gov/respiratoryfailure.html>]
- Sepsis [<https://medlineplus.gov/sepsis.html>]
- Severe bleeding [<https://medlineplus.gov/bleeding.html>]
- Serious infections [<https://medlineplus.gov/infectiousdiseases.html>]
- Serious injuries [<https://medlineplus.gov/woundsandinjuries.html>] , such as from car crashes, falls [<https://medlineplus.gov/falls.html>] , and shootings
- Shock [<https://medlineplus.gov/shock.html>]
- Stroke [<https://medlineplus.gov/stroke.html>]

What happens in a critical care unit?


In a critical care unit, health care providers use lots of different equipment, including:

- Catheters, flexible tubes used to get fluids into the body or to drain fluids from the body
- Dialysis [<https://medlineplus.gov/dialysis.html>] machines ("artificial kidneys") for people with kidney failure
- Feeding tubes, which give you nutritional support [<https://medlineplus.gov/nutritionalsupport.html>]
- Intravenous (IV) tubes to give you fluids and medicines
- Machines which check your vital signs and display them on monitors
- Oxygen therapy [<https://medlineplus.gov/oxygentherapy.html>] to give you extra oxygen to breathe in
- Tracheostomy tubes, which are breathing tubes. The tube is placed in a surgically made hole that goes through the front of the neck and into the windpipe.
- Ventilators (breathing machines), which move air in and out of your lungs. This is for people who have respiratory failure.





These machines can help keep you alive, but many of them can also raise your risk of infection.

Sometimes people in a critical care unit are not able to communicate. It's important that you have an advance directive [https://medlineplus.gov/advancedirectives.html] in place. This can help your health care providers and family members make important decisions, including end-of-life decisions [https://medlineplus.gov/endoflifeissues.html] , if you are not able to make them.

Treatments and Therapies

- Arterial Catheterization [https://www.thoracic.org/patients/patient-resources/resources/arterial-catheterization.pdf] (American Thoracic Society) - **PDF**
- Central Venous Catheter [https://www.thoracic.org/patients/patient-resources/resources/central-venous-catheter.pdf] (American Thoracic Society) - **PDF**
- Chest tube insertion - series [https://medlineplus.gov/ency/presentations/100008_1.htm] (Medical Encyclopedia)
Also in Spanish [https://medlineplus.gov/spanish/ency/esp_presentations/100008_1.htm]
- Chest Tube Thoracostomy [https://www.thoracic.org/patients/patient-resources/resources/chest-tube-thoracostomy.pdf] (American Thoracic Society) - **PDF**
- Tracheostomy - series -- Normal anatomy [https://medlineplus.gov/ency/presentations/100043_1.htm] (Medical Encyclopedia)
Also in Spanish [https://medlineplus.gov/spanish/ency/esp_presentations/100043_1.htm]
- What Is a Ventilator? [https://www.nhlbi.nih.gov/health/ventilator]  (National Heart, Lung, and Blood Institute)
Also in Spanish [https://www.nhlbi.nih.gov/es/salud/ventilador]

Clinical Trials


- ClinicalTrials.gov: Intensive Care [https://clinicaltrials.gov/search?intr=%22Intensive+Care%22&aggFilters=status:not%20rec]  (National Institutes of Health)
- ClinicalTrials.gov: Life Support Care [https://clinicaltrials.gov/search?cond=%22Life+Support+Care%22&aggFilters=status:not%20rec]  (National Institutes of Health)
- ClinicalTrials.gov: Tracheostomy [https://clinicaltrials.gov/search?intr=tracheostomy&aggFilters=status:not%20rec]  (National Institutes of Health)
- ClinicalTrials.gov: Ventilators, Mechanical [https://clinicaltrials.gov/search?term=mechanical+ventilators&aggFilters=status:not%20rec]  (National Institutes of Health)

Journal Articles

References and abstracts from MEDLINE/PubMed (National Library of Medicine)

- Article: Impacts of mandatory clinical ethics consultation on resource utilization and ethical... [https://www.ncbi.nlm.nih.gov/pubmed/40753248]
- Article: Environmental Impact of Online Versus in-Person Critical Care Education Through the... [https://www.ncbi.nlm.nih.gov/pubmed/40744058]
- Article: Effects of early versus late enteral nutrition on the nutritional status... [https://www.ncbi.nlm.nih.gov/pubmed/40738728]
- Critical Care -- see more articles [https://pubmed.ncbi.nlm.nih.gov/?term=%22Critical+Care%22%5Bmajr%3Anoexp%5D+AND+humans%5Bmh%5D+AND+english%5Bla%5D+AND+%22last+1+Year%22+%5Bedat%5D+NOT+%28letter%5Bpt%5D+OR+case+reports%5Bpt%5D+OR+editorial%5Bpt%5D+OR+comment%5Bpt%5D%29+AND+free+full+text%5Bsb%5D+]

Find an Expert

- National Heart, Lung, and Blood Institute [https://www.nhlbi.nih.gov/] 

Children

- Implanted Ports [https://kidshealth.org/en/parents/implanted-ports.html] (Nemours Foundation)
Also in Spanish [https://kidshealth.org/es/parents/implanted-ports.html]

- **Peripherally Inserted Central Catheter (PICC Line)** [<https://kidshealth.org/en/parents/picc-lines.html>] (Nemours Foundation)
Also in Spanish [<https://kidshealth.org/es/parents/picc-lines.html>]
- **Tracheostomy (For Parents)** [<https://kidshealth.org/en/parents/tracheostomy.html>] (Nemours Foundation)
Also in Spanish [<https://kidshealth.org/es/parents/tracheostomy.html>]
- **Tunneled Central Lines** [<https://kidshealth.org/en/parents/cv-catheters.html>] (Nemours Foundation)
- **When Your Baby's in the NICU (Neonatal Intensive Care Unit)** [<https://kidshealth.org/en/parents/nicu-caring.html>] (Nemours Foundation)
Also in Spanish [<https://kidshealth.org/es/parents/nicu-caring.html>]
- **When Your Child's in the Pediatric Intensive Care Unit** [<https://kidshealth.org/en/parents/picu.html>] (Nemours Foundation)
Also in Spanish [<https://kidshealth.org/es/parents/picu.html>]

Patient Handouts

- **Central venous catheter - dressing change** [<https://medlineplus.gov/ency/patientinstructions/000156.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/patientinstructions/000156.htm>]
- **Central venous catheter - flushing** [<https://medlineplus.gov/ency/patientinstructions/000157.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/patientinstructions/000157.htm>]
- **Peripherally inserted central catheter - dressing change** [<https://medlineplus.gov/ency/patientinstructions/000462.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/patientinstructions/000462.htm>]
- **Peripherally inserted central catheter - flushing** [<https://medlineplus.gov/ency/patientinstructions/000159.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/patientinstructions/000159.htm>]
- **Peripherally inserted central catheter - insertion** [<https://medlineplus.gov/ency/patientinstructions/000461.htm>] (Medical Encyclopedia)
Also in Spanish [<https://medlineplus.gov/spanish/ency/patientinstructions/000461.htm>]



MEDICAL ENCYCLOPEDIA

Central venous catheter - dressing change [<https://medlineplus.gov/ency/patientinstructions/000156.htm>]

Central venous catheter - flushing [<https://medlineplus.gov/ency/patientinstructions/000157.htm>]

Chest tube insertion [<https://medlineplus.gov/ency/article/002947.htm>]

Chest tube insertion - series [https://medlineplus.gov/ency/presentations/100008_1.htm]

Extracorporeal membrane oxygenation [<https://medlineplus.gov/ency/article/007234.htm>]

Mechanical ventilator - infants [<https://medlineplus.gov/ency/article/007240.htm>]

NICU consultants and support staff [<https://medlineplus.gov/ency/article/007249.htm>]

Peripherally inserted central catheter - dressing change [<https://medlineplus.gov/ency/patientinstructions/000462.htm>]

Peripherally inserted central catheter - flushing [<https://medlineplus.gov/ency/patientinstructions/000159.htm>]

Peripherally inserted central catheter - insertion [<https://medlineplus.gov/ency/patientinstructions/000461.htm>]

Swan-Ganz - right heart catheterization [<https://medlineplus.gov/ency/article/003870.htm>]

Tracheostomy [<https://medlineplus.gov/ency/article/002955.htm>]

Tracheostomy - series -- Normal anatomy [https://medlineplus.gov/ency/presentations/100043_1.htm]

Tracheostomy care [<https://medlineplus.gov/ency/patientinstructions/000076.htm>]

Other Languages

Find health information in languages other than English [<https://medlineplus.gov/languages/criticalcare.html>] on *Critical Care*

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