Understanding respiratory failure

Call 911 for new severe trouble breathing. In the hospital, alert staff immediately. Respiratory failure means the body is getting too little oxygen, retaining too much carbon dioxide, or both.

Respiratory failure can develop rapidly or over time. A hospital team may need to support breathing while treating the underlying illness and coordinating activity, nutrition and airway care.

Acute respiratory failure develops quickly and can be life-threatening. Chronic respiratory failure develops more gradually. New severe breathing difficulty needs emergency help. Call 911 or alert hospital staff immediately.

Respiratory therapists help physicians and nurses assess breathing support, monitor response and plan airway care. The particular interventions depend on the person's condition and orders.

What Causes Respiratory Failure?

If you or a loved one is suffering from respiratory failure, you may have lots of questions about the condition, what caused it to happen, and what the long-term effects may be.

In order to fully comprehend respiratory failure, it is important to understand the various diseases of the respiratory system and their causes. These diseases negatively affect a person's breathing and can happen in a variety of ways, such as by affecting the muscles, nerves, tissues or bones that support the breathing process.

The following conditions, among other respiratory diseases, can potentially cause respiratory failure:

- Chronic obstructive pulmonary disease (COPD)
- Spinal cord or lung injuries
- Cystic fibrosis
- Pulmonary embolism
- Pneumonia
- Amyotrophic lateral sclerosis (ALS)
- Muscular dystrophy
- Stroke
- Scoliosis (a curve in the spine)
- Alcohol or drug overdose

It is vital that the body's organs (heart, brain, liver, etc.) have oxygen-rich blood in order for the body to work properly. When oxygen is not passing from the lungs into the blood, respiratory failure occurs. It can also occur when the lungs aren't removing carbon dioxide from the blood, leaving a buildup that can damage the body's organs. Unfortunately, it is possible for both of these problems — a low oxygen level and a high carbon dioxide level — to happen at the same time.

Respiratory therapists work with physicians and nurses to monitor breathing, manage prescribed support and help assess readiness for less assistance. The plan depends on the cause of respiratory failure and the person's response.

How Can You Recognize Respiratory System Failure Symptoms?

If you or a loved one is experiencing any of the following signs and symptoms, you may have respiratory failure:

- Shortness of breath
- Bluish color in the lips, skin and fingernails
- Low oxygen levels
- High carbon dioxide levels
- Sleepiness or loss of consciousness
- Rapid breathing
- Air hunger (feeling like you can't breathe in enough air)
- Arrhythmias or irregular heartbeats

These symptoms are also similar to those of other illnesses that affect the respiratory system. If you are experiencing any of the above it is important to contact a medical professional to get an accurate medical diagnosis.

Respiratory System Complications

Unfortunately, acute respiratory failure can often be fatal. However, early diagnosis, as well as aggressive and preventative treatment of complications, can improve survival rates.

The following complications commonly occur with respiratory failure:

- Pulmonary embolism
- Fibrosis
- Pneumonia
- Barotrauma
- Gastrointestinal hemorrhage
- Renal failure
- Infection
- Thrombocytopenia

In order to treat respiratory failure and its complications, catheters, tracheal intubation and mechanical ventilation may be considered. The main goal of treating respiratory failure is to get oxygen to the lungs and organs and remove carbon dioxide from the body. Treating the underlying causes is also extremely important to support recovery.

Respiratory Failure Outcomes And Successes

Options may include oxygen, ventilator support, physical rehabilitation and supervised weaning. Ask which goal is appropriate today and what will determine the next trial.

With prolonged breathing support, ask how the team assesses the airway, secretions, strength and ability to tolerate activity. These observations can inform the next supervised trial or change in treatment.

Anxiety, stress or low mood can accompany respiratory failure. Tell the team when the person seems distressed and ask how to communicate if speaking is difficult.

Ask how medication delivery, infection prevention, breathing support and rehabilitation are coordinated across shifts. Families can share what helps the person rest, communicate and participate.

Archived recovery account

This account describes care in an earlier setting. The course, timing and outcome belong to that individual.

The patient lives at home with his wife and began experiencing difficulty breathing earlier this year, along with pronounced weakness and other worrying symptoms. At the general hospital where he was admitted, the patient was diagnosed with COVID-19, and as his condition deteriorated he had to be placed on a ventilator when he developed acute respiratory failure and pneumonia. He remained at the facility until he was finally able to be stabilized and then transferred to the treating hospital, where the patient would be able to receive advanced respiratory therapy and rehabilitation.

During the first three weeks of his stay at the treating hospital, the patient was unresponsive and still in a very delicate stage of recovery. He was monitored daily and cared for by his team of caregivers and finally began to show signs of recovery almost a month into his stay. As his awareness and mental faculties improved, the patient started to make gains with his respiratory therapists, who worked hard to strengthen his lungs and reduce his dependence on the ventilator. He then finally reached a major milestone when he was able to be taken off the ventilator entirely. His speech therapist helped the patient to recover his voice once the breathing tube was removed and cleared him to swallow safely, allowing him to begin to drink and eat a simple diet. And in the rehab gym the patient was coached by his physical and occupational therapists to recover his strength, mobility and independence. By the time he was discharged from the treating hospital to continue with his rehab, the patient was able to get up from bed, transfer to a wheelchair and begin to take care of his daily needs once again.

Shortly after his discharge, the patient dropped by the facility to say hello to his caregivers and share his progress. At a follow-up visit he discussed recovering from COVID-19, healing of his toes and his personal goal of returning to golf.

Resources:

The National Heart, Lung, and Blood Institute explains how respiratory failure can develop suddenly or over time, the tests clinicians may use and how treatment supports breathing. https://www.nhlbi.nih.gov/health/respiratory-failure

MedlinePlus describes respiratory failure, problems moving oxygen or carbon dioxide, and the kinds of breathing support a clinician may consider. https://medlineplus.gov/respiratoryfailure.html

Talk with Lakeview

For questions about a possible stay, call Lakeview Admissions at (262) 534-8509. During a stay, ask the bedside nurse who can help with your question.

https://www.lakeviewsystem.com/long-term-acute-care