

Acute Respiratory Distress Syndrome (ARDS)

What is ARDS?

Acute Respiratory Distress Syndrome (ARDS) is a lung condition that appears after an injury that impairs the lungs' ability to take up oxygen. ARDS causes low oxygen levels in the blood and occurs when fluid builds up in the air sacs of the lungs. With this fluid buildup, the lungs' normal exchange of oxygen and carbon dioxide is limited thus restricting the oxygen that can reach the bloodstream. ARDS can happen at any age and is commonly caused by another illness or major injury.

What Causes ARDS?

Many conditions or factors can directly or indirectly injure the lungs and lead to ARDS. Some common causes are:

- Infections (Flu, Sepsis, COVID-19, or others).
- Pneumonia.
- Toxic Inhalants (vaping, household cleaners).
- Severe bleeding caused by an injury to the body.
- An injury to the chest or head, like a severe blow.

Can COVID-19 Cause ARDS?

Yes, severe COVID-19 can cause ARDS. COVID-19 damages the wall and lining of the air sacs and capillaries of the lungs. This damage causes fluid and tissue buildup and as a result, the walls of the air sacs become much thicker than normal. In response to the infection the body sends out cells to fight the virus, which causes an inflammatory reaction.

This reaction can cause additional fluid and tissue buildup along the walls of the air sacs. As the walls become thicker, it is much harder for oxygen to pass through to the rest of the body and attributes to the shortness of breath feeling people may experience.

Who Is At Risk for ARDS?

Certain factors may lead to an increased risk for ARDS:

- Older Age
- History of Alcoholism
- Chronic Conditions
- High-Risk Surgeries

What Are the Symptoms?



Shortness of
Breath



Bluish fingernails
or lips



Rapid Heart
Rate



Crackling Sound
In Lungs

How Is It Diagnosed?

A physician will diagnose ARDS based on medical history, a physical exam and diagnostic tests such as blood tests, chest x-ray, chest CT-Scan, or other blood oxygen levels tests.

How Is ARDS Treated?

The treatment goals for ARDS are to raise oxygen levels and treat any underlying causes to prevent complications. Breathing support in the form of oxygen therapy helps raise the oxygen levels in the blood. This can be provided through non-invasive ventilation or with the help of a ventilator. Physicians may also recommend medication to aid in ARDS treatment. Medications depend on the person and their unique medical history, but could include acid-reducing medicines, antibiotics, or muscle relaxants. Other forms of treatments can include blood transfusions for low hemoglobin levels, fluid management, nutritional support, or even physical therapy.