

# What Is ARDS?

ARDS, or acute respiratory distress syndrome, is a lung condition that leads to low oxygen levels in the blood. ARDS can be life threatening because your body's organs need oxygen-rich blood to work well. People who develop ARDS often are very ill with another disease or have major injuries. They might already be in the hospital when they develop ARDS.

To understand ARDS, it helps to understand how the lungs work. When you breathe, air passes through your nose and mouth into your windpipe. The air then travels to your lungs' air sacs. These sacs are called alveoli (al-VEE-uhl-eye). Small blood vessels called capillaries (KAP-ih-lare-ees) run through the walls of the air sacs. Oxygen passes from the air sacs into the capillaries and then into the bloodstream. Blood carries the oxygen to all parts of the body, including the body's organs.

In ARDS, infections, injuries, or other conditions cause fluid to build up in the air sacs. This prevents the lungs from filling with air and moving enough oxygen into the bloodstream. As a result, the body's organs (such as the kidneys and brain) don't get the oxygen they need. Without oxygen, the organs may not work well or at all. People who develop ARDS often are in the hospital for other serious health problems. Rarely, people who aren't hospitalized have health problems that lead to ARDS, such as severe pneumonia.

If you have trouble breathing, call your doctor right away. If you have severe shortness of breath, call 9–1–1.

**More people are surviving ARDS now than in the past. One likely reason for this is that treatment and care for the condition have improved. Survival rates for ARDS vary depending on age, the underlying cause of ARDS, associated illnesses, and other factors.**

ARDS is treated in a hospital's intensive care unit. Current treatment approaches focus on improving blood oxygen levels and providing supportive care. Doctors also will try to pinpoint and treat the underlying cause of the condition. One of the main goals of treating ARDS is to provide oxygen to your lungs and other organs (such as your brain and kidneys). Your organs need oxygen to work properly. Oxygen usually is given through nasal prongs or a mask that fits over your mouth and nose. However, if your oxygen level doesn't rise or it's still hard for you to breathe, your doctor will give you oxygen through a breathing tube. He or she will insert the flexible tube through your mouth or nose and into your windpipe. Before inserting the tube, your doctor will squirt or spray a liquid medicine into your throat (and possibly your nose) to make it numb. Your doctor also will give you medicine through an intravenous (IV) line in your bloodstream to make you sleepy and relaxed. The breathing tube will be connected to a machine that supports breathing (a ventilator). The ventilator will fill your lungs with oxygen-rich air. Your doctor will adjust the ventilator as needed to help your lungs get the right amount of oxygen. This also will help prevent injury to your lungs from the pressure of the ventilator.

You'll use the breathing tube and ventilator until you can breathe on your own. If you need a ventilator for more than a few days, your doctor may do a tracheotomy (tra-ke-OT-o-me). This procedure involves making a small cut in your neck to create an opening to the windpipe. The opening is called a tracheostomy (TRA-ke-OS-to-me). Your doctor will place the breathing tube directly into the windpipe. The tube is then connected to the ventilator.

Supportive care refers to treatments that help relieve symptoms, prevent complications, or improve quality of life.

Supportive approaches used to treat ARDS include:

- Medicines to help you relax, relieve discomfort, and treat pain.
- Ongoing monitoring of heart and lung function (including blood pressure and gas exchange).
- Nutritional support. People who have ARDS often suffer from malnutrition. Thus, extra nutrition may be given through a feeding tube.
- Treatment for infections. People who have ARDS are at higher risk for infections, such as pneumonia. Being on a ventilator also increases the risk of infections. Doctors use antibiotics to treat pneumonia and other infections.
- Prevention of blood clots. Lying down for long periods can cause blood clots to form in the deep veins of your body. These clots can travel to your lungs and block blood flow (a condition called pulmonary embolism).

Blood-thinning medicines and other treatments, such as compression stocking (stockings that create gentle pressure up the leg), are used to prevent blood clots.

- Prevention of intestinal bleeding. People who receive long-term support from a ventilator are at increased risk of bleeding in the intestines. Medicines can reduce this risk.
- Fluids. You may be given fluids to improve blood flow through your body and to provide nutrition. Your doctor will make sure you get the right amount of fluids. Fluids usually are given through an IV line inserted into one of your blood vessels.