Sepsis

The most common cause of ARDS is sepsis from a lung infection, also known as pneumonia. The second leading cause of ARDS is sepsis caused by an infection in some other part of the body, such as a urinary tract infection or an infection in the skin (cellulitis). Individuals who develop ARDS from an infection in the lung and who also develop the sepsis syndrome usually have a worse outcome (only 60% survive) than those with ARDS from other causes such as trauma (76% survive). Mortality from ARDS increases with age and is increased in people with certain other conditions, such as liver cirrhosis.

Does sepsis have adverse effects on organ systems other than the lungs?

Sepsis can disrupt the normal function of most major organs in the body. Organs of note are the heart, kidneys, liver, and intestines. In severe cases of sepsis, mental status is also altered. As more organs are affected by sepsis, the likelihood of survival decreases. For example, persons with sepsis and single organ dysfunction have an 80% chance of surviving, whereas persons in which four organs are affected have only a 20% chance of surviving their acute illness.

Acute respiratory distress syndrome (ARDS) occurs when there is extensive inflammation in the lungs. ARDS is caused by several different diseases, including pneumonia and sepsis. Regardless of what causes ARDS, lung function is severely reduced, leading to shortness of breath and difficulty getting oxygen into the blood and removing carbon dioxide. Older patients and those with chronic diseases such as cirrhosis, kidney failure, and those with poor baseline lung function, tend to have a harder time with ARDS.

What is ARDS?

The ARDS Foundation is a leading humanitarian organization fighting global ARDS.

We place special focus on working with medical staff because, equipped with the proper knowledge, medical staff have the power to help people afflicted with ARDS.
Sepsis is what happens when a severe infection affects the entire body. Germs (bacteria, viruses, and fungi) and harmful germ substances (endotoxin) may be released into the bloodstream from an infection that was previously localized to a part of the body, such as infected skin of the leg. Doctors say a patient has sepsis when there is a known or suspected infection and the patient has two or more of the following signs that indicate the infection is spreading to the rest of the body:

1. Temperature $> 38$ C (ie; $100\degree$ F) or $<36$ C (ie; $97\degree$ F)
2. Heart rate $> 90$ beats/minute
3. Respiratory rate $> 20$ breaths/minute
4. High white blood cell count ($> 12,000$ cell/microliter of blood) or low white blood cell count ($< 4000$ cells/microliter of blood)

Other common findings in patients with sepsis include shaking chills, low blood pressure, alterations in mental (confusion or sleepiness), decreased urine output, and skin that is dusky or mottled and cool to the touch.

Are there different levels of sepsis?

Sepsis can progress from a relatively mild condition that responds quickly to antibiotics and intravenous fluids, to severe sepsis in which organs such as the kidneys, liver, and heart are adversely affected. Even more serious is septic shock, which results in low blood pressures that do not improve rapidly with intravenous fluids. Septic shock is an immediately life-threatening condition that usually requires treatment with special medications in an intensive care unit.

Many people with septic shock do not survive.

Septic shock is a life-threatening condition - many people with septic shock do not survive.