

Usually, kidney failure from sepsis is a temporary problem. If treatment for the infection is successful, the kidneys usually recover and dialysis can be stopped. Intravenous fluids and medications that increase the blood pressure are used to prevent dangerously low blood pressure that can lead to irreversible brain injury. If the source the infection can be removed from the body (ie; appendicitis or abscess), surgery may be an important part of the treatment plan.

**Is there a difference among people that have recovered from ARDS that resulted from sepsis and those in whom ARDS is attributed to other causes?**

There is limited information in this area. Only a single study to date has considered the outcome of patients that recovered from ARDS with/due to sepsis to those that recovered from ARDS due to trauma. This study suggested that physical function, general health, and "vitality" among those that recover from ARDS with sepsis, were best among the patients in whom ARDS and sepsis resulted from trauma

For more information about Sepsis:

<http://www.sepsis.com/>

For more information about ARDS:

<http://www.ardsnet.org/>

ARDS Foundation offers information and support to patients and families who are dealing with a loved one in crisis or after the crisis is over.

- Information and Support to Patients and their families.
- Resources
- ARDS Stories
- How to "Make a Difference" in the fight against ARDS
- Prayer Circle
- Message Board

And More!

ARDS Foundation is constantly adding information, resources and stories, so check back often!

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***ARDS  
and  
Sepsis***

# ARDS AND SEPSIS

## What is ARDS?

Acute respiratory distress syndrome (ARDS) occurs when there is extensive inflammation in the lungs. This can be 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, renal failure, and those with poor baseline lung function, tend to have a harder time with ARDS.

## What is Sepsis?

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. Doctor's 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° F) or < 36 C (ie; 97° 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 status (confusion or sleepiness), decreased urine output, and skin that is dusky or mottled and cool to the touch.

## What are common causes of sepsis?

Sepsis is most frequently the result of an overwhelming bacterial or fungal infection. Responsible organisms usually get into the blood stream from the lungs, intestinal tract, urinary system, or skin. Once in the blood, these organisms trigger the body-wide inflammatory response described above.

Sepsis may not always begin with an infection. Other common causes of sepsis are the same things that can also cause ARDS. These include the aspiration of gastric contents into the lung, severe body trauma, pancreatitis, and the transfusion of blood products.

## 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, in which intravenous fluids and special medications that typically increase the blood fail to do so. Patients in this last group may not survive.

## What is the relationship between sepsis and ARDS?

The most common cause of ARDS is sepsis from a lung infection, also known as pneumonia. Almost

half of all patients with ARDS also have sepsis. 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). These infections are responsible for approximately one-third of all patients with ARDS. 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.

## 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.

## How is sepsis treated?

The treatment of sepsis is directed at (1) identifying and treating the responsible infection with antibiotics and antifungals, and (2) supporting patient with failing organs until the associate systemic inflammatory response is controlled. In patient in whom the lungs are affected, a breathing machine may be used until the lungs recover and are capable of working on their own. Dialysis can be used for patients in whom the kidneys have failed.