



A Union of Professionals

**AFT Nurses and
Health Professionals** ♥

KNOWSEPSIS

What Is Sepsis?

Sepsis, also known as “blood poisoning,” is a life-threatening medical condition that arises when the body’s escalating attempt to fight an infection fails. In severe cases, blood pressure drops, multiple organ failures ensue, and the patient dies rapidly from (septic) shock.

Sepsis always is triggered by an infection, which can be acquired almost anywhere: in the community, in hospitals, or in other healthcare facilities. The majority of cases are caused by infections we all know about: pneumonia, urinary tract infections, skin infections like cellulitis, and infections in the abdomen (such as appendicitis). Invasive medical procedures, like the insertion of a catheter into a blood vessel, also can introduce bacteria into the blood and, in time, trigger sepsis.

Once the infection is deep-seated—by virtue of a missed diagnosis or lack of response to treatment—the body begins vigorous efforts to fight “for its life.” In this state, the body actually overreacts to the infection and causes inflammation, which damages blood vessels resulting in fluid leakage through the vessel walls, as well as tiny blood clot formation that cuts off blood flow and oxygenation to surrounding tissues and organs. As each organ fails, signs become apparent: shortness of breath; reduction in urine output; dizziness; altered mental status with confusion, agitation or drowsiness, for example.

What is the International Impact of Sepsis?

Sepsis remains the primary cause of death from infection, despite advances in modern medicine such as vaccines, antibiotics and high-tech acute care facilities. In the developing world, sepsis accounts for 60-80 percent of lives lost per year, affecting more than 6 million newborns and children, as well as over 100,000 women during the course of pregnancy and childbirth.

Sepsis is the 10th leading cause of death in the U.S. Older adults (age 65 and above) are particularly vulnerable and disproportionately affected by sepsis, with two-thirds of cases occurring among this population.

The number of deaths from sepsis in the U.S increased 35 percent, from 154,159 in 2000 to 207,427 in 2007, and the numbers of hospitalizations for sepsis have overtaken those for myocardial infarction. In the U.S., sepsis accounts for far more deaths than the number of deaths from prostate cancer, breast cancer and AIDS combined.

Data collected by the U.S. Centers for Disease Control and Prevention’s National Center for Health Statistics estimates that the number of times people were in the hospital with sepsis increased from 621,000 in 2000 to 1.14 million in 2008, with an overall threefold rise during the last decade. In comparison, hospital admissions for stroke and myocardial infarction remained stable over the same period.

How Can We Prevent Sepsis?

Sepsis can’t occur without an underlying infection—whether bacterial, viral or fungal. Usually, our immune systems is sufficient to protect us. But, just as we have benefited from science and technology, so too have there been negative consequences—such as the indiscriminate use of antibiotics resulting in antibiotic-resistant bacteria; the use of immunosuppressant drugs for patients with organ transplants; and the prolonged use of steroids for those with severe arthritis—all leading to the body’s inability to fight infection. In some cases, we see poor sanitation or lack of attention to sterile techniques. Occasionally, a healthy person becomes septic from an infection for no apparent reason. Last, participation in the range of vaccination programs protects not only those receiving them, but those around them. So, for example, when children are immunized, their grandparents benefit!

Strict handwashing in work facilities, and teaching the technique to patients and families, is a must. Also teach those family members and patients to go immediately to the hospital emergency department if they have symptoms associated with sepsis—and not to be deterred by anyone who is not alarmed by the following. The goal is to catch the problem in the earliest of its three stages!

The Mayo Clinic provides the following criteria to both identify and differentiate among the three levels of sepsis:

Sepsis

To be diagnosed with sepsis, a patient must exhibit at least two of the following symptoms:

- Body temperature above 101 F (38.3 C) or below 96.8 F (36 C)
- Heart rate higher than 90 beats a minute
- Respiratory rate higher than 20 breaths a minute
- Probable or confirmed infection

Severe Sepsis

The diagnosis will be upgraded to severe sepsis if the patient also exhibits at least one of the following signs and symptoms, which indicate an organ may be failing:

- Significantly decreased urine output
- Abrupt change in mental status
- Decrease in platelet count
- Difficulty breathing
- Abnormal heart pumping function
- Abdominal pain

Septic Shock

To be diagnosed with septic shock, the patient must have the signs and symptoms of severe sepsis—plus extremely low blood pressure that doesn’t adequately respond to simple fluid replacement.