

# How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

 Duration of the entire procedure: 40-60 seconds



0 Wet hands with water;



1 Apply enough soap to cover all hand surfaces;



2 Rub hands palm to palm;



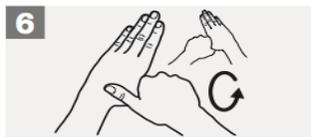
3 Right palm over left dorsum with interlaced fingers and vice versa;



4 Palm to palm with fingers interlaced;



5 Backs of fingers to opposing palms with fingers interlocked;



6 Rotational rubbing of left thumb clasped in right palm and vice versa;



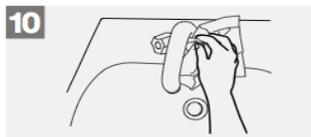
7 Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



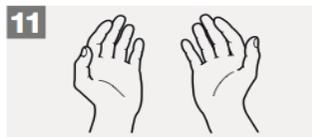
8 Rinse hands with water;



9 Dry hands thoroughly with a single use towel;



10 Use towel to turn off faucet;



11 Your hands are now safe.



## Sepsis Bulletin

Information for Patients,  
Family, and Friends



World Health Organization

Patient Safety  
A World Alliance for Safer Health Care

SAVE LIVES  
Clean Your Hands

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May 2009

"Sepsis bulletin: information for patients, family and friends"

is shared by Global Sepsis Alliance and World Sepsis Day - more information: [www.world-sepsis-day.org](http://www.world-sepsis-day.org)



 @WorldSepsisDay

 @WorldSepsisDay



September | World  
13 | Sepsis  
2018 | Day

Sepsis strikes an estimated 30 million people worldwide every year, many of whom needlessly die or suffer permanent health issues. Medical resources are strained by the burden of caring for patients suffering from sepsis. Education seriously needed to prevent, diagnose, and treat sepsis early.

### What Is Sepsis?

Colloquially known as "blood poisoning", sepsis is a life-threatening medical condition that arises when the body's attempt to fight an infection results in the immune system damaging tissues and organs.

The chaotic response causes widespread inflammation, leaky blood vessels, and abnormal blood clotting resulting in organ damage. In severe cases, blood pressure drops, multiple organ failures ensue, and the patient can die rapidly from septic shock.

Patients vary in their responses; the severity of their sepsis and the speed with which it progresses is affected by their genetic characteristics and the presence of coexisting illness, as well as the numbers and virulence of infecting micro-organisms. Some patients seem not to deteriorate until late in their illness, in others sepsis progresses rapidly and can be fatal within a few hours.

### Who Gets Sepsis?

Sepsis does not discriminate. It affects all age groups and is not respectful of lifestyle choices. Vulnerable groups such as newborn babies, small children, and elderly are post at risk as well as those with chronic disease like diabetes, kidney and liver disease or weak immune system like leukemia and AIDS.

Sepsis is not a disease confined to health care settings, though most patients with established sepsis will be cared for in hospital.

### What Causes Sepsis?

Sepsis occurs due to infections acquired both in the community, hospitals, and other healthcare facilities.

The majority of cases is caused by infections we all know about: pneumonia, urinary tract infections, infections in the abdomen. Invasive medical procedures like insertion of a catheter into a blood vessel may introduce bacteria to the blood stream and trigger sepsis.

Most types of microbes can cause sepsis, including bacteria, viruses, fungi, and parasites such as malaria. Seasonal influenza viruses, Dengue & Ebola viruses may lead to acute organ failures.

Sepsis process is due to overdrive inflammation that is no longer localized to the site of infection. The body's defense and immune system overreact leading to widespread inflammation, poor perfusion, organ failures, and septic shock.

### How Many People Get Sepsis?

In developing countries, sepsis accounts for 60 - 80 % of lost lives per year, affecting 6 million newborns and children annually. 100,000 women contract sepsis in the course of pregnancy and childbirth. In the USA, the number of times people were in the hospital with sepsis increased from 621,000 in the year 2000 to 1,141,000 in 2008!

The number of hospital admissions for sepsis increased up to 3-fold over the last decade compared to admissions due to stroke and myocardial infarction which remained stable over the same period. The number of deaths from sepsis in the USA increased from 154,159 in 2000 to 207,427 in 2007, and the numbers of hospitalizations with sepsis have overtaken those for myocardial infarction.

In the USA, sepsis accounts for more deaths than the number of deaths from prostate cancer, breast cancer, and AIDS combined.

### What Are the Symptoms of Sepsis?

The diagnosis and treatment of sepsis is often delayed because early symptoms are not recognized by patients, healthcare workers, and physicians.

A common feature of patients with sepsis is that they feel as sick as never before, in children, the symptoms and signs of sepsis may be subtle and deteriorate quickly.

The most common warning signs of ongoing sepsis are:

- Fever, chills
- Rapid or difficulty in breathing
- Fast heart rate
- New confusion, disorientation or drowsiness

### How Do We Treat Sepsis?

Sepsis is an emergency. Prompt recognition of the condition followed by the administration of intravenous fluid and antibiotics are key to survival.

The primary aims of treatment are to treat the infection, sustain the vital organs and prevent a drop in blood pressure, and implement appropriate infection control and prevention measures for communicable diseases.

The underlying infection should be treated with broad-spectrum intravenous antimicrobials toward the most likely microbes. If the laboratory test can identify the infectious agent, doctors can then select the proper antibiotic that hits the organism.

- Severe muscle and joint pain
- Skin rash
- Poor feeding in pediatric or geriatric populations

Sepsis clinical manifestations are variable, depending on the site of infection, microorganism, patient age and the underlying health status. Therefore, proper education among healthcare workers is encouraged in order to diagnose early stages of infection and sepsis.

Many patients receive oxygen and intravenous fluid to maintain normal blood oxygen and normal blood pressure beside other drugs might be required for septic shock. In the developed world, about 50% of people with sepsis were managed in hospital intensive care units.

Patients with sepsis may need mechanical ventilation or kidney dialysis, sometimes surgery is required to clear a local site of infection that will not respond to antimicrobials alone.

### Are There Any Long-Term Effects of Sepsis?

Sepsis is a major contributor to lost lives worldwide each year, however, many people who survive severe sepsis recover completely and their lives return to normal. Patients who are discharged from hospital after sepsis remain at risk of death in the following months or years. Those who survive may have impaired physical or neurocognitive function, mood disorders, and low quality of life among at least 20 % of survivors.

There is some evidence that an episode of severe sepsis disrupts the patient's immune system, making them vulnerable to future infections. In children, regular follow-up care is required, as children may still be at risk after discharge from hospital post-sepsis.

### What Is the Economic Cost of Sepsis?

Early identification and treatment of sepsis will have tremendous economic benefits, as well as saving lives and reducing the negative impact of sepsis.

Treatment of sepsis often involves a prolonged stay in the intensive care unit and complex therapies, with high cost.

The Agency for Healthcare Research and Quality lists sepsis as the most expensive condition treated in US hospitals, costing more than \$20 billion in 2011, increasing on average annually by 11.9%. It has been estimated that if the USA as a whole achieved earlier sepsis identification and evidence based treatment, there would be 92,000 fewer deaths annually, 1.25 million fewer hospital days

Annually and reduction in hospital expenditures of over \$1.5 billion!

The cost related to long-term impacts of sepsis have not been quantified, but are very likely substantial, including subsequent medical care: the true fiscal burden, considering delayed return to work, the need for families to adjust lifestyles to support, and rehabilitation cost is likely to be a lot more.