



Weill Cornell Medical College

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Patient Education:

# Sepsis, Infant and Child

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# Sepsis, Infant and Child

Sepsis is a serious medical condition also known as systemic inflammatory response syndrome, or SIRS. Sepsis occurs when there is an infection in the blood (caused by bacteria, virus, or fungus) and there are other signs and symptoms that toxic products from the infection are being released into the bloodstream.

Sepsis is a serious disease. The severity of sepsis can vary. In severe sepsis:

- Organs may stop working normally (*organ failure*).
- Blood pressure can fall (*septic shock*). The drop in blood pressure causes the organs to not work well.
- Abnormal blood clotting may occur in tiny blood vessels throughout the body.

The course of the disease may be unpredictable. Most children recover with proper treatment.

## CAUSES

Any kind of infection can cause sepsis. Common sites of infection that can lead to sepsis include:

- Blood.
- Lungs (*pneumonia*).
- Liver, gallbladder, or bowel.
- Urinary tract or kidney(s).
- Pelvis.
- Skin (*cellulitis*).

In children, sepsis may occur with infection of the bone (*osteomyelitis*). In hospitalized patients, common sites of infection include intravenous (IV) lines, surgical wounds, surgical drains, and bedsores.

Risk factors for getting sepsis include:

- Infants of very low birth weight.
- Immune systems that are weakened from:
  - Medicines that fight cancer (*chemotherapy*).
  - Diseases like HIV (human immunodeficiency virus).
  - Being born with poor or no immune function.
  - Sickle cell anemia or another blood disease that restricts the function of the spleen.
- Surgery.
- Being on breathing machines.
- Severe injury.
- Severe burns.

## SYMPTOMS

Symptoms vary based on age. Children and infants may have:

- Fever or low body temperature because the body can no longer control its temperature.
- Chills.
- Shaking.
- Warm skin.
- Skin rash.
- Fast heart rate.
- Breathing changes (fast or slow).
- Lethargy, confusion, or delirium.
- Nausea and vomiting.
- Diarrhea.
- Less urine output.
- Poor muscle tone.
- Poor feeding.

## DIAGNOSIS

Diagnosis is made by physical exam and lab tests such as:

- Tests to check for infection (*cultures*). Blood, spinal fluid, and urine may be checked. Other areas may be checked for sepsis after surgery, injury, etc.
- X-rays to look for pneumonia.
- Blood tests for clotting problems.
- Blood tests or scans to check organ function.

## TREATMENT

Sepsis may be treated in several different ways:

- Septic patients usually need to be watched very closely in an intensive care unit (ICU).
- The main treatment is to find and get rid of the underlying infection. This is done with antibiotics.
- Surgery may be needed if there are any areas of infected fluid.
- Fluids and medications may be given through the vein (IV fluids).
- Medicines may be given to raise low blood pressure.
- Oxygen and/or breathing machines may be used to support breathing.
- Dialysis for kidney failure.
- Artificial feeding through a tube.
- Pain medicine and/or sedative medicine.
- Medicine to stop ulcer bleeding that can develop in the stomach and small bowel.

## SEEK MEDICAL CARE IF:

- Your child has an oral temperature above 102° F (38.9° C).

- Your baby is older than 3 months with a rectal temperature of 100.5° F (38.1° C) or higher for more than 1 day.
- Your infant becomes lethargic, sleepy, or irritable.
- Your infant has a poor appetite or is not interested in eating.
- Your infant develops a rash.
- Your infant has a decreased amount of wet diapers.

### **SEEK IMMEDIATE MEDICAL CARE IF:**

- Your child has an oral temperature above 102° F (38.9° C), not controlled by medicine.
- Your baby is older than 3 months with a rectal temperature of 102° F (38.9° C) or higher.
- **Your baby is 3 months old or younger with a rectal temperature of 100.4° F (38° C) or higher.**
- Your infant has trouble breathing.
- Your infant becomes pale or blue in color.
- You are not able to wake up your infant or your infant is floppy.

This information is not intended to replace advice given to you by your health care provider. Make sure you discuss any questions you have with your health care provider.

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