

Glossary to "What is Sepsis" @ <https://www.thoracic.org/patients/patient-resources/resources/sepsis.pdf> September 2021

Infection	When germs are attacking your body, and your immune system is fighting the germs. Germs can be bacteria, viruses, or certain fungus/molds.
Immune System	The elements including white cells in your blood that help your body fight infection
Inflammation	The reaction that is seen when the immune system is attacking an infection. That part of your body is hurt and stops working normally. It can come red, hot, swollen, and painful and tender. Chemicals can be released that affect other parts of the body.
Sepsis	When your whole body and all your organs are suffering from inflammation and your body is damaged during the fight between your immune system and a severe infection
Severe Sepsis	When your body can no longer keep up the fight against infection well. Your organs, like kidneys, lungs, and brain, are starting to fail from sepsis
Septic Shock	When your heart can no longer pump enough blood to keep your body and organs alive on its own. Cells in your body are beginning to fail and die from severe sepsis
ARDS, respiratory failure, hypoxia	Acute Respiratory Distress Syndrome: it describes the damage to the lungs that occurs in sepsis. People with ARDS may need mechanical ventilation
Delirium and Encephalopathy	When the brain suffers damage from sepsis. If you have delirium or encephalopathy, you can act "drunk," sleepy, or excited and agitated. You may lose control of your behavior
Ileus	When the gut, stomach, intestines, and colon stop working from sepsis. You can have nausea and may vomit. Your belly may get swollen and distended
Nasogastric/Orogastric tube	Tubes inserted in the mouth or stomach to deliver medicines and nutrition for those who can't feed themselves because of sepsis or severe illness.
AKI, acute kidney injury, acute renal failure	AKI is acute kidney injury . When the kidneys fail from sepsis. People with AKI may stop making urine. They may have abnormal blood tests, like BUN and creatinine levels. Severe AKI may need dialysis, renal replacement, RRT
Dialysis, renal replacement therapy, RRT, CRRT	Therapy given to people with severe AKI. People may need a central line/ CVC for dialysis. (see 'Hemodialysis' at www.thoracic.org/people)
Central Line, CVC	A special type of IV catheter. Usually placed in the neck, chest, or groin. Special medicines like pressors can be given through CVC (see Central Venous Catheter at www.thoracic.org/people)
Arterial Line, "art line"	A special type of catheter. Usually placed in the wrist or groin. Can be used to get special blood work (see Arterial Catheterization at www.thoracic.org/people)
Mechanical Ventilation	A "breathing machine." Used to support breathing when the lungs fail from severe ARDS .
Tracheostomy	A hole in the neck, placed surgically, to allow people to remain on mechanical ventilation for a longer, extended period of time. (see www.thoracic.org/people)
ICU, intensive care unit, Critical Care Unit	A special part of the hospital where people with severe illness such as sepsis or septic shock are usually cared for. There is closer monitoring and nursing care than a regular hospital unit. ICUs can provide advanced therapies like mechanical ventilators, CRRT, and pressors
Antibiotics	Special medications used to fight infection from bacteria. Different antibiotics are needed depending on the type of bacteria.
MRSA	"Methicillin-resistant Staphylococcus Aureus," a common type of infection than can cause severe and difficult-to-treat sepsis
Isolation	Precautions hospitals may take to prevent infections from spreading to staff and other people. The type of isolation depends on what type of infection there is and how contagious it can be.
Fluid resuscitation	Giving a large volume (amount) of fluid, usually normal saline (salt water) through an IV catheter, to support people with severe sepsis or septic shock
"Sepsis Bundle"	A combination of multiple treatments given together to support people with sepsis.



Table: How do my Organs Fail in Sepsis

How do my organs fail in sepsis?						
Organ system/ body part	General	Mild sepsis	Moderate-Severe Sepsis	Tests your healthcare provider might order	How to support the person	Prognosis and long-term effects
THE BRAIN, SPINE, AND NERVES (The <i>nervous system</i>)	The brain is very sensitive to sepsis, and people will quickly develop encephalopathy or delirium	<ul style="list-style-type: none"> ■ People might feel weak or tired ■ People may have difficulty “collecting their thoughts,” ■ People may become agitated and lose control of their behavior 	<ul style="list-style-type: none"> ■ People will become sleepy ■ People appear “drunk” ■ People may become difficult arouse and fall into a coma 	Not really good tests for delirium. <ul style="list-style-type: none"> ■ CT scan or MRI images of the brain, ■ Lumbar puncture (spinal tap) 	People with delirium or encephalopathy might get medications to control behavior, or even physical restraints if they lose control of their behavior. To test delirium, some hospitals have tools like CAM-ICU or RASS to check the severity of the delirium	People with severe delirium from sepsis may suffer <i>cognitive impairment</i> and may take a long time to recover brain and cognitive function. They may have difficulty holding down a job.
THE LUNGS (<i>respiratory system</i>)	The lungs are sensitive to sepsis and people can develop respiratory failure	<ul style="list-style-type: none"> ■ People will experience difficulty breathing ■ People may need oxygen 	<ul style="list-style-type: none"> ■ People with severe sepsis will develop acute respiratory distress syndrome (ARDS), 	<ul style="list-style-type: none"> ■ Chest images (x-rays, CT scans) ■ Blood gas work (ABG) ■ Pulse oximetry ■ Capnography 	People with severe ARDS may need mechanical ventilation (breathing machine) , a form of life support	Although people who survive sepsis can have good lung recovery, many need prolonged support on a breathing machine, or long-term oxygen at home.
THE HEART AND ARTERIES (<i>the cardiovascular system</i>)	The heart and cardiovascular system can fail, leading to low blood pressure (called hypotension) and shock	<ul style="list-style-type: none"> ■ People will appear clammy and sweaty ■ Heart rate will rise (<i>tachycardia</i>) 	<ul style="list-style-type: none"> ■ Blood pressure will fall (<i>hypotension</i>) ■ The heart ECG rhythm may become abnormal ■ People may have signs and symptoms of congestive heart failure ■ People may have blood test or ECG results that look like a heart attack (acute MI) 	<ul style="list-style-type: none"> ■ ECG ■ Echocardiogram ■ Troponin level (blood test) ■ BNP level (blood test) ■ Cardiac monitoring 	People with failure of the cardiovascular system may be in shock. They will need <i>pressor medication</i> and <i>IV fluid resuscitation</i> to support heart function and blood pressure	People who survive sepsis may have long-term heart damage and heart failure, but can sometimes recover heart function after weeks or months
THE KIDNEYS AND BLADDER (the urinary system)	The kidneys commonly fail in sepsis, referred to as acute kidney injury (AKI)	<ul style="list-style-type: none"> ■ People may make less urine 	<ul style="list-style-type: none"> ■ Blood work will reveal kidney failure ■ People may make no urine at all 	<ul style="list-style-type: none"> ■ Blood chemistry levels (may be a panel called a Chem 7 or 10 that has multiple tests) ■ Urine studies ■ Kidney ultrasound 	People with severe AKI may need dialysis or renal replacement therapies (RRTs)	Kidney function often takes months to recover. It may not fully recover. Some people need dialysis for weeks or months after discharge from the hospital

Table: How do my Organs Fail in Sepsis (continued)

How do my organs fail in sepsis?						
Organ system/ body part	General	Mild sepsis	Moderate-Severe Sepsis	Tests your healthcare provider might order	How to support the person	Prognosis and long-term effects
THE STOMACH, INTESTINES, AND COLON (the gastrointestinal [GI] system)	The GI system often fails in sepsis affecting the intestines, liver and/or pancreas	<ul style="list-style-type: none"> People have loss of appetite People may complain of nausea or vomiting 	<ul style="list-style-type: none"> People can have complete slowing of their GI track, known as <i>ileus</i> with an inability to tolerate nutrition via the intestines The liver, gallbladder, and pancreas are part of the GI system and can also fail in severe sepsis 	<ul style="list-style-type: none"> Blood tests that can include liver function, Amylase and lipase levels <p>Imaging studies such as a Liver/abdominal (belly) ultrasound or CT scan of the abdomen</p>	Nutrition, often given through at <i>nasogastric tube</i> or <i>orogastric tube</i> is needed if a person is too sick to eat. If the intestines are not working well, nutrition may be given by IV (called total parenteral nutrition or TPN)	People can have long-term effects of GI system failure, but can recover and be able to eat and take in nutrition. People occasionally need a long-term feeding tube, placed through the skin directly into the stomach
MUSCLES, ARMS AND LEGS (The musculoskeletal system)	The muscles and limbs can fail in sepsis and get weaker as the hospital stay gets longer	<ul style="list-style-type: none"> People may feel weak People will complain of muscle aches 	<ul style="list-style-type: none"> People can have <i>myopathy</i> or muscle failure People can develop <i>ICU-acquired weakness</i> after a long (more than 7 day) stay in the ICU 	<ul style="list-style-type: none"> Blood work EMG/ NCV testing of muscles and nerve 	Physical therapy can be done. Some ICUs are making people who are alert enough, walk every day, even if they are on life support. The more activity a person does, the more likely he or she will be to recover muscle function	People with severe sepsis often suffer prolonged weakness and disability. They may need weeks or months of rehabilitation therapy
SKIN (Integument system)	The skin can break down in sepsis due to prolonged time in bed and lack of moving around (pressure sores)	<ul style="list-style-type: none"> Blotchy, pale skin 	<ul style="list-style-type: none"> People can suffer severe breakdown of the skin 	(none)	Nurses provide skin care by moving people, using special beds and mattresses, and other care to prevent skin breakdown	Skin breakdown often needs long term therapies and occasionally plastic surgery to repair damage to skin from sepsis
BLOOD AND BONE MARROW (The hematological system)	The immune system and bone marrow can fail in the body's fight against sepsis, inflammation and infection. This can result in anemia (low red blood count), low white blood counts, and low platelets (used in blood clotting)	<ul style="list-style-type: none"> Fevers and chills- these indicate the immune system is doing its job to fight sepsis 	<ul style="list-style-type: none"> People can develop bone marrow failure from severe sepsis 	<ul style="list-style-type: none"> Complete blood count (CBC) Immunoglobulin blood levels Bone marrow biopsy 	Good nutrition is the most important way to support the immune system. Extra vitamin and iron supplements may also be needed. Blood transfusions may be needed for severe anemia.	People often have prolonged anemia after sepsis.