

SEPSIS & MULTIPLE SCLEROSIS, THIS S*** IS SCARY



Cathy O'Brien

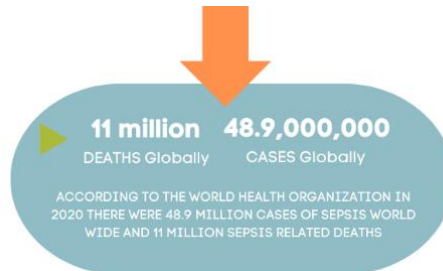


WHAT IS SEPSIS?

Sepsis is a life threatening condition that happens when the body's immune system has an extreme response to an infection that has entered the bloodstream. The body's reaction causes damage to its own tissues and organs which can lead to shock, multiple organ failure and sometimes death especially if not treated promptly.

Sepsis numbers have **Doubled** in the U.S. between 2000 and 2008. Some of the reason cited are :

- chronic diseases in our aging population
- rise of resistance to antibiotics
- increase in invasive procedures
- immunosuppressive drugs
- chemotherapy



SEPSIS IS...

- ▶ THE BODY'S TOXIC RESPONSE TO INFECTION
- ▶ PREVENTABLE AND TREATABLE IN MOST CASE
- ▶ THE LEADING CAUSE OF DEATH IN U.S. HOSPITALS
- ▶ THE #1 COST OF HOSPITALIZATION IN THE U.S. MORE THAN \$24 BILLION EACH YEAR.

Cathy O'Brien 2025 www.joythrums.com

MULTIPLE SCLEROSIS, SEPSIS & JOY (her story)

My daughter Joy was diagnosed with Sepsis during covid after a seriously bad UTI infection. While Uti infections were nothing new because of her Multiple Sclerosis It became obvious that this new diagnosis ramped everything up to a whole new level of serious. You could hear the stress in her doctor's voice when he told her it was **too dangerous** to admit her to the hospital for treatment because of her compromised immune system, now both of us were worried. Normally the first thing that happens with sepsis is that the patient is admitted into intensive care where they start administering IV antibiotics immediately. Covid removed that possibility and made the situation more a lot more dangerous, No IV antibiotic, no 24 hour monitoring, no emergency

services readily available for things like not being able to breathe or switching antibiotics if she wasn't responding to one. It was scary and dangerous. If you google Sepsis you immediately understand just how serious it is the word death is used a lot. Joy had lived with Multiple Sclerosis for 18 years up to this point and never did we think she might die, that changed with sepsis. I still hate to think about that time in 2022 but like all life and death situations you learn fast and never forget. Here's what we learned and why we want to pass it on.

WHAT IS SEPSIS?

According to the World Health Organization Sepsis is one of the most frequent causes of death worldwide. It is a life-threatening condition that happens when the body's immune system has an extreme reaction to an untreated infection that has entered the bloodstream. The body attacks its own organs and tissues, which can lead to tissue damage, organ failure and death. If diagnosed early sepsis can be treated with antibiotics and fluids avoiding the development of sepsis shock. Once sepsis progresses however the high rate of severe complications increases exponentially especially for patients with a weakened immune system or a chronic illness. There are three stages of sepsis which are described below.

THREE STAGES OF SEPSIS

- **SEPSIS:** can be hard to identify in its early stages but common symptoms that show evidence of the disease include are fluctuating body temperature, fever, confusion, extreme pain and signs of infection
- **SEVERE SEPSIS:** difficulty breathing, abnormal heartbeat, difficulty urinating, change in mental state, chills due to reduced body temperature, extreme weakness and confusion
- **SEPTIC SHOCK:** Dangerously low blood pressure, rapid pulse and breathing, dizziness, organ failure. The dramatic drop in blood pressure can damage the lungs, kidneys, liver, and other organs. When the damage is severe it can lead to death

According to the MAYO clinic the risk of death from SEPSIS is as high as 30%, SEVERE SEPSIS 50% and the risk of death from SEPTIC SHOCK 80%. Early diagnosis and treatment is the key to a successful recovery from Sepsis.

WHAT CAUSES SEPSIS?

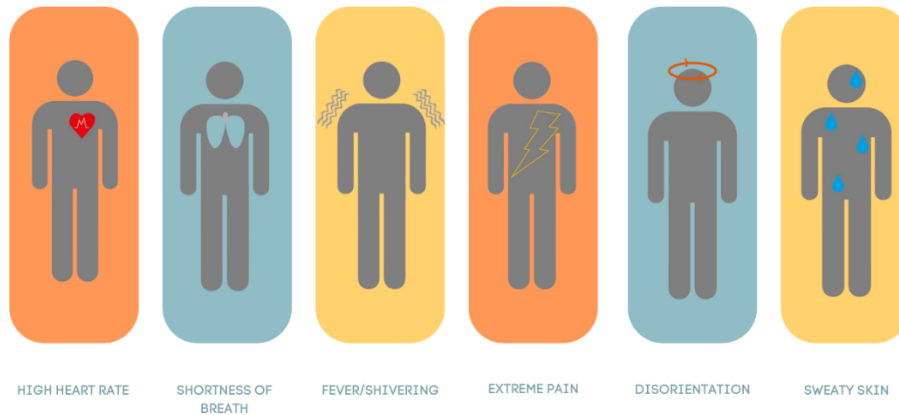
Sepsis is your body's response to an infection that has entered the bloodstream and the body's inflammatory response to it. It can be hard to pinpoint when an infection moves from where it originates into the bloodstream but when it does quick recognition and treatment are critical to avoiding septic shock. A recent research article published in "Microbial Insights" stated that that sepsis infections have three major sources:

1. **BACTERIAL INFECTIONS:** most cases develop from bacterial infections especially infections of the lungs. Pneumonia accounts for close to 40% of bacterial sepsis

2. **VIRAL SEPSIS:** when a virus such as COVID-19 causes sepsis its known as viral sepsis. These infections are often acquired outside of the hospital
3. **FUNGAL SEPSIS:** any fungal infection such as yeast infection can also lead to sepsis. Most fungal sepsis is acquired in hospital settings. Of the three main causes of the condition, fungal sepsis has the highest average death rate.
4. The Infection could start anywhere, for example, in your urinary tract or a wound and spread throughout your body through the blood. The most common sites of infection resulting in severe sepsis are the urinary tract, the abdomen and the lungs. The number one site of infection in the United States is **Pneumonia**, the second is **Urinary tract infection** and the third from **abdominal infection**. Abdominal infection can be from diverticulitis, necrotic bowel, penetrating perforations and appendicitis. There are many more conditions where sepsis can enter the body for example soft tissue and skin infections bacterial meningitis, toxic shock syndrome and staph infection to name a few.



SEPSIS SYMPTOMS



SEPSIS SYMPTOMS

Symptoms may be limited to one area of the body during the initial infection but with onset of the sepsis are felt throughout the entire body. Common signs of Sepsis are:

1. Fever or low body temperature(hypothermia)
2. Shortness of breath

3. Shivering or chills
4. Severe pain or discomfort
5. Confusion or delirium
6. Lightheadedness due to low blood pressure
7. Rapid heartbeat
8. Skin rash or mottled skin
9. Warm skin
10. Clammy or sweaty skin
11. Be sensitive to light
12. Become lethargic, anxious or confused
13. vomit

Certain portions of the population are at a higher risk for developing sepsis, the elderly, people with a weakened immune system, chronic diseases like heart or kidney failure, adults with pacemakers, joint replacements and infants. Children especially newborns may experience different early symptoms, blueish skin discoloration skin rash, convulsions, rapid breathing, vomiting, low blood sugar, and the inability to urinate. These signs require immediate emergency attention as neonatal sepsis is a leading cause of infant death. Sepsis is a medical emergency. Seek immediate medical care if you experience any of these symptoms, the sooner you treat sepsis the better the prognosis. This disease progresses quickly, frequently ending up in the emergency room where rapid treatment is critical.

TREATMENT

Sepsis treatment usually requires hospitalization and administering IV antibiotics as quickly as possible, it cannot be treated with home remedies. It is considered a medical emergency

Treatment includes antibiotics focused on the likely infection, IV fluids to increase blood pressure crucial for supplying blood flow to the organs and monitoring in a critical care environment. If low blood pressure does not respond to fluids, then drugs like vasopressors are given.

What you really need to know and what is better NOT to know?

That treatment sounds so simple right? An antibiotic treatment and lots of fluids, that could be treatment for any run of the mill infection but this one is not run of the mill. I want to say that in my case ignorance was bliss, once I read about the complications with Sepsis I wish I could put that genie back in the bottle. I was suddenly grateful that Joys doctors decided not to share some of the grizzly facts of how bad this could go down, I actually respect keeping the worst-case scenario to yourself. If you want the big picture of how bad- bad is a good source of information is the Sepsis Alliance (Sepsis.org), they use words like limb amputation, antibiotic resistance and Super Bugs. All relevant information regarding sepsis but I would not go there unless you absolutely need to. I believe in being informed but I am very protective over what goes into my very visual creative mind where hope resides. There no shortage of sources for more information on sepsis, here's a few to check out: CDC's sepsis information page (

cdc.gov/sepsis), The Global Sepsis Alliance (global-sepsis-alliance.org) and Surviving Sepsis Campaign (sccm.org/SurvivingSepsisCampaign).

MULTIPLE SCLEROSIS & SEPSIS (be afraid be very afraid)

OK let's just get the bad news out of the way. If you have multiple sclerosis sepsis is particularly concerning for the following reasons:

M.S. Patients have Increased Susceptibility because of

Compromised immune systems

Higher than average risk of infections

Reduced mobility can increase risk of infection

Sepsis can trigger MS flares or exacerbate symptoms

Urinary Tract infections common in MS patients are the #2 source for sepsis

Respiratory infections, Pneumonia being the number #1 source for sepsis

skin infections

Fever associated with sepsis can worsen neurological symptoms

PREVENTION:

The cause-and-effect cycle between MS and Sepsis resembles the perfect storm, it's an issue to keep in mind when considering your priorities when planning a preventative approach to your health. Here are a few Tips.

Here's a basic list provided by Johns Hopkins medicine

Mitigating sepsis is all about reducing the chance of getting an infection. One of the best ways to prevent infection is to wash your hands often. Wash your hands with clean running water for at least 20 seconds

Wash your hands

Before eating

After using the toilet

Before and after caring for a sick person

Before during and after food preparation

Before and after cleaning a wound or cut

After blowing your nose, coughing or sneezing

After touching an animal or handling pet food or treats

After changing a diaper

After touching garbage

With MS keeping your immune system strong can also help prevent sepsis

Keep cuts cleaned and covered until healed

Manage chronic health conditions

Eat a healthy well-balanced diet

Get regular exercise

Get recommended vaccines on schedule

When an infected area is not getting better or is getting worse get medical care

OUR DOCTORS NEVER MENTIONED THIS: WATER AND DEHYDRATION

For some reason none of the medical journals mention water as a preventative tool with infections

DEHYDRATION is a leading risk factor for UTI infections. Symptoms include:

Pain or burning when urinating

Urgent need to urinate

Blood in urine

Cloudy urine

Strong smelling urine

Other health complications from Dehydration

Dehydration can lead to kidney stones, kidney failure, seizures, low blood pressure and hypovolemic shock

Staying hydrated is important when you're sick with a virus, as symptoms like fever, coughing, diarrhea and vomiting can lead to dehydration

Most of us minimize things that are easy but I am happy to learn how water and washing can actually prevent such serious conditions .