

## **Sepsis and Viral Infections**

A virus is a small infectious agent (they are so small that a microscope is necessary to see them) that can only live and replicate within a host organism (a living cell). The agents can hijack the host's cell machinery, forcing it to replicate and produce viral proteins. The particles then make new viruses and burst from the host cell. There are thousands of viruses; the common cold and flu are viruses, as are Ebola, HIV, and COVID-19. Viral infections can sometimes be minor but they can be severe on older people and those with weakened immune systems.

Any virus can lead to sepsis. Sepsis is the body's extreme reaction to infection. The body attacks its own organs and tissues, which can lead to tissue damage, organ failure, and death.

### Symptoms.

Symptoms can be many and different and can include:

- Dehydration
- Nausea and vomiting
- Diarrhea
- Fever and aches
- A runny nose
- A sore throat
- A rash

## **Risk Factors.**

Viral sepsis can impact anyone–young, old, sick or healthy. Those with an increased risk of infection include:

- People with chronic illnesses such as diabetes
- Those with weakened immune systems
- The elderly
- Infants

## Diagnosis.

Viral infection and sepsis are diagnosed by a medical professional following a physical examination, evaluation of medical history and blood tests and cultures. Some common viral infections such as measles, rubella and chickenpox may be diagnosed based on symptoms. Laboratory diagnosis is very important to distinguish between viruses that have similar symptoms such as COVID-19 and influenza..

#### Treatment.

There are no specific treatments of symptoms for a viral infection, however, many things can help relieve certain symptoms such as consuming plenty of fluids, antidiarrheal drugs, a clear liquid diet, nasal decongestants and throat numbing lozenges. Antiviral medications have become available to treat some viral diseases such as herpes simplex.

### **Prevention.**

The best way to prevent viral infections is vaccination, which involves the administration of a vaccine made of inactive viral particles to an unaffected individual in order to increase the person's immunity to the disease. The risk of developing a viral infection can be reduced by practicing good hygiene, including washing hands regularly and avoiding contact with people who are ill.

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