# SEPSIS AWARENESS

**C****aretakers Southwest**

**Scope**

* **Policy Statement**
* Source of Infection
* What Causes the Symptoms of Sepsis
* **The Policy**
* People at Risk
* Signs and Symptoms of Sepsis
* Septic Shock
* Symptoms of Septic Shock
* Sepsis Prognosis
* **Related Policies**
* **Related Guidance**
* **Training Statement**

**Policy Statement**

Anyone can get sepsis and it is life threatening. Sepsis can be triggered by an infection in any part of the body. The most common sites of infection leading to sepsis are the lungs, urinary tract, abdomen and pelvis.

There is a greater chance of developing sepsis when in hospital after:

* recent surgery
* having a [urinary catheter](http://www.nhs.uk/conditions/urinary-catheterization/Pages/Introduction.aspx) fitted
* staying in hospital for a long time due to a serious illness

A person c**annot** be infected by sepsis from another person

It is still not understood why some people develop sepsis and others do not, but it is likelier to develop after a viral illness, such as a cold, or a minor injury, and some are more susceptible, including those who:

* Are very young or very old.
* Are diabetic.
* Are on long-term steroids or on drugs to treat cancer or other conditions.
* Have had an organ transplant and are on anti-rejection drugs.
* Are malnourished.
* Have serious liver disease.
* Have a serious illness that affects their immune system, such as leukaemia.
* Have an infection or a complication after surgery.
* Are pregnant or have just given birth.

Although the above groups are at higher risk, it is important to remember that **sepsis can affect anyone**: it claims the lives of young and old people alike and affects the previously fit and healthy.

If you are in any doubt, just ask: **could it be sepsis?**

# Sources of infection

Types of infection associated with sepsis include:

* lung infection [(pneumonia)](http://www.nhs.uk/conditions/pneumonia/Pages/Introduction.aspx)
* [appendicitis](http://www.nhs.uk/conditions/Appendicitis/Pages/Introduction.aspx)
* an infection of the thin layer of tissue that lines the inside of the abdomen [(peritonitis)](http://www.nhs.uk/conditions/Peritonitis/Pages/Introduction.aspx)
* an infection of the bladder, urethra or kidneys [(urinary tract infection)](http://www.nhs.uk/conditions/Urinary-tract-infection-adults/Pages/Introduction.aspx)
* an infection of the gallbladder (cholecystitis) or bile ducts (cholangitis)
* skin infections, such as [cellulitis](http://www.nhs.uk/conditions/Cellulitis/Pages/Introduction.aspx) – this can be caused by an intravenous [catheter](http://www.nhs.uk/conditions/urinary-catheterization/Pages/Introduction.aspx) that's been inserted through the skin to give fluids or medication
* infections after surgery
* infections of the brain and nervous system – such as [meningitis](http://www.nhs.uk/Conditions/Meningitis/Pages/Introduction.aspx) or [encephalitis](http://www.nhs.uk/conditions/Encephalitis/Pages/Introduction.aspx)
* [flu](http://www.nhs.uk/Conditions/Flu/Pages/Introduction.aspx) (in some cases)
* bone infection [(osteomyelitis)](http://www.nhs.uk/Conditions/Osteomyelitis/Pages/Introduction.aspx)
* heart infection [(endocarditis)](http://www.nhs.uk/conditions/endocarditis/Pages/Introduction.aspx)

# What causes the symptoms of sepsis?

In normal situation your immune system keeps an infection limited to one place. This is known as a localised infection. The body produces white blood cells, which travel to the site of the infection to destroy the germs causing infection. A series of biological processes occur, such as tissue swelling, which helps fight the infection and prevents it spreading. This process is known as inflammation.

If a person’s immune system is weak or an infection is particularly severe, it can quickly spread through the blood into other parts of the body. This causes the immune system to go into overdrive, and the inflammation affects the entire body. This can cause more problems than the initial infection, as widespread inflammation damages tissue and interferes with blood flow. The interruption in blood flow leads to a dangerous drop in blood pressure, which stops oxygen reaching your organs and tissues.

# The Policy

It is important to understand the causes of sepsis along with sources of infection for staff to be able to raise any concerns as soon as possible with a medical professional We recognise that individuals in our care are amongst those most at risk of developing sepsis

Early identification and treatment = increased survival!

# People at Risk

Everybody is potentially at risk of developing sepsis from minor infections. However, some people are more vulnerable, including people who:

* Have a medical condition that weakens their immune system – such as [HIV](http://www.nhs.uk/conditions/HIV/Pages/Introduction.aspx) or [leukaemia](http://www.nhs.uk/conditions/Leukaemia-acute/Pages/Introduction.aspx)
* Are receiving medical treatment that weakens their immune system – such as [chemotherapy](http://www.nhs.uk/Conditions/Chemotherapy/Pages/Definition.aspx) or long-term steroids
* Are very young or very old
* Are pregnant
* Have a long-term health condition – such as [diabetes](http://www.nhs.uk/Conditions/Diabetes/Pages/Diabetes.aspx)
* Have just had surgery, or have wounds or injuries as a result of an accident
* Are on mechanical ventilation – where a machine is used to help you breathe
* Have infusions or catheters attached to their skin
* Are genetically prone to infections

# Signs and Symptoms of Sepsis

* There is not always a fever, however if there is a fever, core body temperature of 39.4 degrees Celsius and shaking chills or, alternatively, a very low body temperature
* Decreased urination
* Tachycardia -rapid pulse. (heartbeat of 90 beats per minute or more)
* Rapid breathing. (greater than 20 breaths per minute)
* Nausea and vomiting
* Diarrhoea
* The high likelihood or confirmed presence of an infection
* Blood cultures could be negative

Symptoms differ in adults and children; it is therefore vital to be aware of what to look for. Ensuring all staff know the symptoms of sepsis through regular staff training and up-to-date policies will help with early diagnosis: it cannot be left to healthcare professionals alone!

| **The symptoms of sepsis** | |
| --- | --- |
| **Adults** | **Children** |
| Severe breathlessness.  Rapid heartbeat  Dizziness or feeling faint.  Slurred speech or confusion.  Extreme shivering or muscle pain.  Passing no urine in a day.  Clammy, pale or mottled skin. | Breathing very fast.  Has a fit or convulsion.  Mottled, bluish, or pale skin.  A rash that does not fade when pressed.  Very lethargic or difficult to wake.  Abnormally cold to the touch. |
| **Children under five** |
| Not feeding.  Vomiting repeatedly  Has not passed urine/had a wet nappy in 24 hours. |

# Septic Shock

Septic shock is a life-threatening condition that happens when blood pressure drops to a dangerously low level after an infection. Any type of bacteria can cause the infection. Fungi such as candida and viruses can also be a cause, although this is rare.

At first the infection can lead to a reaction called sepsis as described above. Left untreated, toxins produced by bacteria can damage the small blood vessels, causing them to leak fluid into the surrounding tissues.

This can affect the heart's ability to circulate blood to vital body organs, which causes hypotention. People with a weakened immune system have an increased risk of developing septic shock.

These include:

* new-born babies
* elderly people
* pregnant women
* people with long-term health conditions, such as [diabetes](http://www.nhs.uk/Conditions/Diabetes/Pages/Diabetes.aspx), [cirrhosis](http://www.nhs.uk/conditions/Cirrhosis/Pages/Introduction.aspx) or [kidney failure](http://www.nhs.uk/conditions/Kidney-disease-chronic/Pages/Introduction.aspx)
* people with lowered immune systems, such as those with [HIV or AIDS](http://www.nhs.uk/conditions/HIV/Pages/Introduction.aspx) or those receiving [chemotherapy](http://www.nhs.uk/Conditions/Chemotherapy/Pages/Definition.aspx)

**Symptoms of Septic Shock**

Symptoms of septic shock include:

* [low blood pressure (hypotension)](http://www.nhs.uk/conditions/Blood-pressure-(low)/Pages/Introduction.aspx) that makes the person feel dizzy when standing up
* breathing difficulties
* a rapid change in mental state, such as confusion or disorientation
* [diarrhoea](http://www.nhs.uk/conditions/diarrhoea/Pages/Introduction.aspx)
* abdominal pain with nausea and vomiting
* cardiac abnormalities
* cold, clammy and pale skin

Septic shock is a medical emergency; medical help must be summoned immediately, by calling 999 if it is thought that the person in your care has septic shock.

Bedsores often develop quickly, particularly among the elderly whose skin is already fragile, and can be difficult to treat. If he individual has any mobility issues, the risk of bedsores should be noted on their care plan. Furthermore, if staff fail to recognise, inform or adequately monitor bedsores diagnosis and treatment of sepsis may be delayed. This could lead to sepsis infection, and ultimately septic shock.

## Treating septic shock

The individual is usually admitted to an [intensive care unit (ICU)](http://www.nhs.uk/conditions/Intensive-care/Pages/Introduction.aspx) so that the body's functions and organs can be supported while the infection is treated.

Treatment may include:

* oxygen therapy
* fluids given directly through a vein (intravenously)
* medication to increase blood flow
* [antibiotics](http://www.nhs.uk/conditions/Antibiotics-penicillins/Pages/Introduction.aspx)  which are recommended to be administered for 7 to 10 days
* surgery (in some cases)

The chances of surviving septic shock will depend on:

* the cause of infection
* the number of organs that have failed
* how soon treatment is started

Complications of septic shock can be fatal; complications include:

* inability of the lungs to take in enough oxygen (respiratory failure)
* the heart not being able to circulate sufficient blood around the body
* [kidney failure](http://www.nhs.uk/conditions/Kidney-disease-chronic/Pages/Introduction.aspx) or injury
* abnormal blood clotting

Sepsis is one of the top reasons individuals in care homes are sent to hospitals. Septic shock among the elderly results in death about 20% of the time, costing emotional and financial harm on families and the health care system overall.

Among the elderly, sepsis is most often caused by untreated pressure ulcers, from remaining in one position for long periods of time. The prolonged pressure on an area, resulting in injuries to the skin and underlying tissue.

# Sepsis Prognosis

By identifying sepsis early, it is possible to increase an individual’s chance of surviving. The longer the symptoms of sepsis go undiagnosed, the less likely a sufferer is of making a recovery.

**Related Policies**

Infection Control

Moving and Handling

Prevention of Pressure ulcers

**Related Guidance**

* Sepsis: recognition, diagnosis and early management NICE guideline [NG51] Published date: July 2016 Last updated: September 2017
* Sepsis NICE QS 161 September 2017 <https://www.nice.org.uk/guidance/qs161/resources/sepsis-pdf-75545595402181>
* Sepsis NHS <https://www.nhs.uk/conditions/sepsis/>
* Escavo Sepsis application accessed September 2019 <https://www.escavo.com/>
* Sepsis Trust <https://sepsistrust.org/professional-resources/clinical>

**Training Statement**

All staff, during induction are made aware of the organisations policies and procedures, all of which are used for training updates. All policies and procedures are reviewed and amended where necessary and staff are made aware of any changes. Observations are undertaken to check skills and competencies. Various methods of training are used including one to one, on-line, workbook, group meetings, individual supervisions and external courses are sourced as required.

**Return to Policy Heading (Ctrl+Click) –** [**Policy Heading**](#SepsisAwareness)