Sepsis: what to look out for and what care you should expect

This information explains the care that NICE has said works best for people who have suspected sepsis, and for people who are at risk of developing it. It will help you, your family and carers know what to expect from health and care services.

Why is this important for you?
NICE aims to help people get the best care no matter who they are or where they live. This NICE advice includes:

- what healthcare professionals should look out for that mean you might have sepsis
- who is at a higher risk of sepsis
- where and when you should have your treatment.
See where can I find out more for further information.

Your healthcare team should know what NICE has said. Talk to them if you don't think you are getting the care NICE has said you should have.

What is sepsis?

Sepsis is a rare but serious reaction to an infection. If you get an infection, your body's immune system responds by trying to fight it. Sepsis is when this immune system response becomes overactive and starts to cause damage to the body itself.

It can be hard to tell if you have sepsis. You might not even have a fever or high temperature, you may just feel very unwell.

Sepsis needs to be treated urgently because it can quickly get worse and lead to septic shock. Septic shock is very serious, as it can cause organ failure and death.

Anyone with an infection can get sepsis. But some people have a higher chance of getting it than others.

Who is more at risk of sepsis?

- babies younger than 1 year
- people over 75
- people who are frail
- people with diabetes
- people with weak immune systems
- people who are having chemotherapy treatment
- women who have just given birth or recently been pregnant (including those who have had a miscarriage or abortion)
- people who have recently had surgery
- people who have recently had a serious illness.
Babies are also more at risk if they were born prematurely or their mother had an infection while she was pregnant. This can be any type of infection, including very mild ones.

If your baby has suspected sepsis and you know you had an infection when you were pregnant you should tell your healthcare professional, even if you think it might not be important.

Am I likely to have sepsis?

It’s important to remember that not everyone who gets sepsis has a high temperature or fever. So if you feel very unwell but have a normal temperature you should still speak to your healthcare professional.

If you are likely to be more at risk of sepsis (see who is more at risk of sepsis?), or if it looks as though you might have an infection, your healthcare professional should think about whether you might have sepsis.

They should check for anything that could mean you might have sepsis, such as:

- feeling or acting differently than normal (they should also ask any relatives or carers who are with you if you don't seem your usual self)
- problems with, or changes in, your circulation (blood flow)
- problems with, or changes in, your breathing.

As sepsis can be hard to spot, anything you can tell your healthcare professional can help them to help you.

They should also ask about how you have been lately and if you have had any recent illnesses or injuries.

Depending on your answers to the questions, the healthcare professional may also check your heart rate, blood pressure and breathing.

They will use all the information they collect to decide:

- whether you have suspected sepsis,
• how high your risk is of life-threatening illness from sepsis, and
• if you need to have urgent treatment or more checks.

Looking for sepsis in babies and children

If your healthcare professional decides that your baby or child might have sepsis they should:

• ask you if they have been acting differently
• ask you if they seem more upset
• ask if they have been crying in a different way
• ask if they seem a lot more sleepy than normal
• ask how many wet nappies they've had, or how often they have gone to the toilet
• check their temperature, breathing and heart rate
• make sure they’re responding to what's going on around them.

They will also look for signs of infection, such as:

• blue skin, lips or tongue (this is called cyanosis)
• a blotchy (mottled) or very pale or grey (ashen) appearance
• cold hands or feet
• a rash that doesn't go away when you press on the skin (non-blanching).

As a parent or carer you know your child best. If you feel your child is still not well or isn't getting better you should seek medical help even if they've been seen by a healthcare professional already.

Questions you could ask about sepsis

• Can you tell me more about sepsis?
• What may have caused me to get sepsis?
• Can you provide any information about sepsis for me and my family or carers?

**How is suspected sepsis treated?**

The next steps will depend on your risk of life-threatening illness from sepsis. Remember that sepsis needs to be treated urgently because it can quickly get worse and lead to septic shock, which can be fatal.

**Treatment outside hospital**

If your healthcare professional thinks that you have an infection but it is unlikely that you have sepsis, you may be given treatment for your infection (such as antibiotics) and told you can get better at home. You should also be given information on signs to look out for that your infection may be getting worse so you know when to get help (see important information for when you get home).

If your healthcare professional thinks you might have sepsis and you are too ill to be looked after elsewhere, you will need to go into hospital. This is so you can be checked regularly and treated quickly if you need it.

If your healthcare professional thinks you are at high risk of life-threatening illness from sepsis, you should be taken to hospital straight away. If it will take more than an hour to get to hospital your healthcare professional or ambulance staff should give you antibiotics directly into a vein through a drip or injection before you get there.

**Treatment in hospital**

If health professionals decide you are at high risk of life-threatening illness from sepsis, you should see a senior doctor or nurse straight away.

You should have antibiotics no more than an hour after you have been diagnosed as being at high risk, because it's important to get treated as quickly as possible.

If health professionals decide you are at high risk of life-threatening illness from sepsis, and you haven't already been treated on your way in, you should have antibiotics directly into a vein through a drip or injection as soon as you arrive in hospital.
Your healthcare team should also:

- take some blood for tests
- give you extra fluids through a drip or injection if you need them – this should happen within an hour of arriving at hospital
- give you oxygen if you need it
- examine you to see if they can find where the infection started.

You might have other tests such as a urine test or x-rays of your chest or other parts of your body. Your healthcare team should talk to you about sepsis and explain any tests and treatments you need. They should also explain this to your family or carers, if they are with you.

People who are very ill or have gone into septic shock will need treatment from a critical care team. Some people may need surgery to remove infected tissue.

If the infection that caused your sepsis is starting to get better your healthcare team should let you know when it will be safe to go home.

**Tests in babies and children**

If your baby or child might have sepsis, the tests to look for the infection will vary depending on their age, symptoms and medical history. For example a newborn baby is more at risk of a serious infection than an older child as they haven't built up as much immunity or had any immunisations.

Your healthcare team should talk to you about any tests or procedures they would like to do, what will happen and what they are for. You should also ask your healthcare team at any point if you're not sure about why something is being done.

**Questions about finding out what's wrong**

- Can you tell me more about the tests or investigations you've offered me?
- What are the tests for?
• What do they involve?
• Will I need to have them in hospital?
• How long will it take to get the results of these tests?
• Do you think I/my child/relative has sepsis?

Questions about treatments

• Will antibiotics cure my sepsis?
• How long will they take to have an effect?
• (If your antibiotics have been stopped) Why have you stopped my antibiotics?
• Why have you given me fluid into my veins? How often will you need to do this?
• How much improvement can I expect and how quickly?
• Might I have problems when I stop taking the antibiotics?
• Are there any risks associated with this treatment?
• How will I be given my treatment?
• Will I need to have surgery?
• Is there some other information about the treatment (like a leaflet, video or a website I can go to) that I or my family or carers can have?

Important information for when you get home

Before you're discharged a member of your healthcare team should give you, and (if appropriate) your family or carers, information about sepsis. They should talk to you about:

• what to do if you keep feeling unwell
• important signs to look out for that might mean your infection is getting worse, so you can get help quickly
• what support is available after you get home.

If you're not given any information you should ask your healthcare team for this before you leave. It's very important that you and your family or carers know what to look for and what to do if you become unwell again.

What if I'm still worried?

If you're worried that you're not getting better, or if your child or family member still seems unwell or not themselves, you should talk to a doctor or other healthcare professional.

It is very important to ask for advice from a healthcare professional if you're worried, even if you have already seen a doctor, are still having treatment, or are back home. This is because the problems caused by sepsis can come on very quickly, and you may need more (or different) treatment.

You should always feel that you can ask questions at any point in your care.

Questions about care at home

• Would it help me recover more quickly if I made some changes to my lifestyle or diet when I get back home?

Questions about following up on your treatment

• When should I start to feel better? What should I do if I don't start to feel better, or feel worse?

• Does my current treatment need to be changed?

Questions family members or carers could ask

• What can I/we do to help and support the person with sepsis?

• Is there any additional support that I/we as relatives or carers might benefit from or be entitled to?
Making decisions together

You should be part of all decisions about your care so you can agree which treatments are likely to suit you best. Your healthcare team should involve you by:

- talking to you so that they understand what matters to you
- giving you all the information you need so that you can make your mind up
- explaining why they think something that is mentioned here won't work for you and explain any other ways of dealing with the issue
- giving you details for someone in your care team that you can contact if you have any questions.

There is more information about how you should be involved in your care on our website.

What are NICE guidelines?

NICE gives advice to staff working in health and social care. Our guidelines help them to give the best care to people with different conditions and needs. We wrote this guideline with people and their carers who have been affected by sepsis and staff who treat or support them. All the decisions are based on the best research available. You can read the guideline written for people who work in health and care services.

Where can I find out more?

- UK Sepsis Trust, 0845 606 6255
  www.sepsistrust.org
- ICUsteps, 0300 30 20 121
  www.icusteps.com
- Meningitis Research Foundation, 080 8800 3344
  www.meningitis.org
- Meningitis Now, 0808 80 10 388
  www.meningitisnow.org
• Macmillan Cancer Support (for people at risk of neutropenic sepsis), 0808 808 00 00
  www.macmillan.org.uk

You can also go to NHS Choices for more information on sepsis.

NICE is not responsible for the quality or accuracy of any information or advice provided by these organisations.


Accreditation