



Sepsis – what you need to know



**Maternity
information
leaflet**

Sepsis is a life-threatening condition. It can happen when the body develops an infection which then affects the organs.

It is a rare but important diagnosis during and up to 42 days after the end of the pregnancy, because pregnancy affects the body's ability to respond to infection which could cause an increased risk of sepsis.

If sepsis does occur, it is best treated when recognised early. That is why it's important to recognise the signs.

Who is at risk of sepsis?

Anyone who has an infection is at risk of developing sepsis but some people have an increased risk:

- people on medications and treatments which affect the way the immune system works
- people who have had an organ transplant and are taking medication.

During pregnancy your immune system changes to prevent your body from rejecting your baby.

These changes mean that the immune system is not good at fighting off infection, in particular, viral infection. This is why pregnant women are at particular risk during seasonal flu outbreaks.

Most women who get pregnant are young and healthy and this helps protect them from sepsis. But there are some things which increase the risk of sepsis.

Pregnancy-related risk factors

All women need to pay close attention to infection prevention, particularly if any of these risks apply to you.

Cerclage

This is when a stitch is put in the cervix to prevent miscarriage during pregnancy.

Pre-term or prolonged rupture of membranes

If the 'waters' have broken either early or for longer than 24 hours, an infection can develop. Symptoms can include pain, a bad smell and you may begin to feel unwell.

Retained products

Sometimes part of the placenta or membranes stay

inside the womb after delivery. This can lead to increased bleeding and infection with pain and a bad smell.

History of pelvic infection

This relates to a pelvic infection that has been diagnosed and treated during the pregnancy.

Recent amniocentesis

This is a procedure to take a sample of fluid from around the fetus during pregnancy.

Close contact with Group A Streptococcal infection

An infection with Group A streptococcus diagnosed in someone you have recently been in close contact with.

Non-pregnancy-related risk factors

Being over 35 years of age

Pregnancy is normal but it does involve a lot of changes in how the body works. The ability to adapt to infection is affected as you get older and by your general health.

Obesity

If you've had a caesarean section and are overweight, you are at increased risk of infection. It is important that you clean your wounds carefully.

Diabetes

High sugar levels in the blood are well liked by bugs. Diabetes can also affect the blood supply to the skin and organs which leads to an increased risk of infection.

Recent surgery (less than 6 weeks)

Having an operation affects how your immune system functions as well as having a wound that could get infected.

Immunocompromised (having a weakened immune system)

Some medicines affect the immune system which increases infection and sepsis risk.

These side effects will be listed in the information leaflet that comes with your medication.

Ask your pharmacist or GP if you have any further questions.

Chronic kidney, heart, liver or lung disease

This relates to chronic diseases diagnosed before the pregnancy.

Signs and symptoms of infection

Infection causes a combination of general and local signs and symptoms depending on where the infection is in the body.

General symptoms

- Temperature over 38°C or under 36°C

If you take paracetamol this may lower the temperature but will not treat the underlying infection.

- Severe uncontrollable shivering
- Fatigue
- Loss of appetite
- Muscle and joint pain
- Vomiting
- Diarrhoea

Signs and symptoms of pregnancy related infections


Breast infection <i>(e.g. mastitis)</i>	Your breast may be painful and/or warm to the touch. There may be an area of swelling or redness on your breast. You may also be feeling generally unwell and experience pain or a burning sensation. This may happen during breastfeeding or at any other time.
Womb infection <i>(e.g. chorio- amnionitis)</i>	Tummy or lower tummy pain that is not relieved by painkillers is a concern. You may: <ul style="list-style-type: none">- have smelly blood loss- start to have heavy bleeding again even though it had previously eased off- be feeling unwell and have some of the general symptoms of infection outlined above.
Wound infection <i>following a caesarean section (or where you had stitches)</i>	Around the caesarean section wound: <ul style="list-style-type: none">- May feel hot, painful, look red and swollen- May or may not have pus present You may be feeling unwell with general symptoms of infection outlined above.
Genital tract infection	You may experience: <ul style="list-style-type: none">- inflammation, irritation and vaginal discharge in the birth canal- irritation on the skin of the labia. If you have a pelvic infection, you may: <ul style="list-style-type: none">- experience pain lower in your tummy and/or your lower back- have a vaginal discharge- have a temperature and feel unwell.

Local signs and symptoms

Respiratory tract / lung infection	<ul style="list-style-type: none">• A cough with or without green sputum (phlegm).• Breathlessness.
Abdominal infection	<ul style="list-style-type: none">• Unexplained abdominal (tummy) pain with or without a swollen tummy.• Pain may be worse when your tummy is pressed.
Urinary tract infection (UTI)	<ul style="list-style-type: none">• Burning sensation on passing urine, with intense urge to go.• Pain may also be present in your side
Genital tract infection	<ul style="list-style-type: none">• Lower tummy discomfort or pain with or without smelly discharge.
Skin or wound infection	<ul style="list-style-type: none">• Pain, swelling, redness and hot to touch.• There may be pus or fluid oozing.
Bone or joint infection	<ul style="list-style-type: none">• Pain, swelling, redness and hot to touch.• There may be pus or fluid oozing.• Stiffness.
Brain infections and meningitis	<ul style="list-style-type: none">• Severe headache.• Neck stiffness.• Not able to tolerate bright lights.• May have a rash on the skin or body.• May be agitated or confused.
Device-related infection	<p>This is where an infection is caused by an item or material which is not a normal part of the body. For example, a medical tube used for giving fluids, or metal work, such as a plate for broken bones.</p> <p>Symptoms of a device-related infection include:</p> <ul style="list-style-type: none">• pain, swelling, redness and hot to touch in the area of the device• pus or fluid oozing.
Blood stream infection	<ul style="list-style-type: none">• Temperature over 38°C or under 36°C.• Severe uncontrollable shivering.• Fatigue.• Loss of appetite.• Muscle and joint pain.• Vomiting and diarrhoea.

Sepsis checklist

If you or someone else has an infection, use the following checklist to see if they may be at risk of sepsis. If you tick any of the boxes, it could be a sign of sepsis and organ malfunction, and you should get urgent medical help.

Tick if applies	Part of the body affected	 Consider
<input type="checkbox"/>	Brain	<ul style="list-style-type: none"> • Is the person behaving as they normally do? • Changes can range from mild agitation or confusion all the way to a coma. • Are they too sick to communicate?
<input type="checkbox"/>	Breathing	<ul style="list-style-type: none"> • Is their breathing pattern very fast and laboured? • Can they finish a sentence without a pause? • Are their lips tinged with blue?
<input type="checkbox"/>	Circulation	<ul style="list-style-type: none"> • Is their heart racing very fast? • Are their hands and feet cold, clammy and pale? • Are they persistently dizzy when they sit or stand up?
<input type="checkbox"/>	Kidneys	<ul style="list-style-type: none"> • Is it more than 12 hours since they passed urine? And do they not feel a need to pass urine?
<input type="checkbox"/>	Clotting	<ul style="list-style-type: none"> • Do they have a new rash that is still visible when pressed on by your finger or when a glass is rolled over it (glass test)?
<input type="checkbox"/>	Functional status	<ul style="list-style-type: none"> • Is there a change in their behaviour or performance? • In some people with intellectual and/or physical disabilities it can be difficult to recognise these changes, especially if you don't know them well. • Young people may have severe leg pain and difficulty standing.

Preventing infection and sepsis

Our bodies are very well designed and have multiple layers of defence against infection. Not all bugs cause infection and bugs in the right place are essential for our body to be healthy. We have bugs on our skin and our digestive system that not only help keep us well but also ensure that our immune system is working well and that we are getting essential vitamins and minerals.

Here are some things you can do to protect against infection.

Good hygiene

- Keep yourself clean and wash your hands regularly and thoroughly.
- Keep your environment clean.
- Use soap and hot water to keep the number of bugs down.

Good sanitation

- Make sure you have clean water to drink.
- Make sure your toilet facilities are clean.

Vaccination or immunisation

- Vaccination is a method of stimulating the immune system to recognise and destroy dangerous bugs. Immunisation is a simple, safe and effective way of protecting people against harmful diseases before they come into contact with them.
- Immunisation not only protects individuals, but also others in the community, by reducing the spread of disease. The flu vaccine helps your immune system to produce antibodies to the influenza virus minimising the risks of you getting the flu.

Breastfeeding

- When a baby is born his/her immune system is not fully developed. Because of this, babies are at increased risk of infection.
- As he/she is delivered and cuddled at birth, the baby is exposed to bugs carried by his/her mother. This is helpful so that the baby can be exposed to a nice healthy varied group of bugs for his or her skin and digestive tract.
- Breast milk contains cells and proteins from the mothers' immune system that can be used by baby to fight infections. Immune cells and proteins are also transferred across the placenta before birth and these give some protection too.

Exposure to infection

Have you or someone you are caring for:

- been in close contact with anyone who has had similar symptoms?
- had a recent operation or infection?
- known to carry a multi-drug resistant bacteria i.e. MRSA?

Could this be sepsis?

If you or someone you are caring for has an infection which is getting worse, look for the signs of sepsis using the checklist.

Infection



= Sepsis

**Organ
Malfunction**

What to do

If you have an infection which is getting worse and you think any of the signs of sepsis are present, you should:

1. Get urgent medical help from your GP, midwife, maternity unit, out of hours service or local emergency department
2. Tell them the part of the body that is abnormal (see the checklist)
3. Ask 'could this be sepsis'?

If you suspect sepsis – seek urgent medical help.

For more information visit:
www.hse.ie/sepsis

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