

Patient information factsheet

Pre-eclampsia

We have given you this factsheet because you have developed, or are at risk of developing, a condition called pre-eclampsia.

This factsheet explains what pre-eclampsia is, what causes it, and the steps you and your maternity team can take to prevent and manage it. It aims to support the discussions you will have with your midwife and obstetrician (a doctor specialising in pregnancy). We hope it helps to answer some of the questions you may have. If you have any further questions or concerns, please speak to your midwife or obstetrician.

What is pre-eclampsia?

Pre-eclampsia is a condition which usually develops during the second half of pregnancy (from 20 weeks) or soon after a baby is born, although it can happen earlier. It occurs as a response to reduced blood flow through your baby's placenta (the organ that links your blood supply to your unborn baby's blood supply).

Initially, it affects your blood pressure, causing it to become high (hypertension). However, as the severity of the condition increases, it can affect other parts of your body, including your:

- kidneys (causing protein to leak into your urine (proteinuria))
- liver
- blood clotting system
- brain (leading to headaches, changes in your vision and, in more severe cases, seizures)

In most cases, the condition is mild. However, if it is not identified and treated appropriately, it can lead to serious, and in some cases fatal, complications for both you and your baby.

What causes pre-eclampsia?

The exact cause of pre-eclampsia isn't fully understood. However, it is thought to involve several environmental and genetic factors affecting the way your baby's placenta develops and functions.

How common is pre-eclampsia?

Pre-eclampsia is common, affecting up to 8 in every 100 pregnancies in the UK.

You are more likely to develop pre-eclampsia during your pregnancy if:

- this is your first pregnancy (about 4 in every 100 first pregnancies are affected compared to about 2 in every 100 second pregnancies)
- you are aged 40 years or older
- you had hypertension (high blood pressure) before your pregnancy
- you had hypertension (high blood pressure) during a previous pregnancy
- your body mass index (BMI) is 35 or more at the beginning of your pregnancy

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- you have kidney disease
- you have an autoimmune disease (for example, lupus or antiphospholipid syndrome)
- you have type 1 or type 2 diabetes
- there are more than 10 years between this pregnancy and the birth of your last baby
- there is a family history of pre-eclampsia
- you are expecting more than one baby (for example, twins or triplets)

What are the signs and symptoms?

Early signs and symptoms

The first symptoms of pre-eclampsia are usually:

- high blood pressure
- protein in your urine (proteinuria)

You will not notice these symptoms yourself and may not feel unwell, but your blood pressure will be measured, and your urine will be tested (to check your protein levels) during your routine antenatal appointments.

It is important that you attend all your antenatal appointments and bring a urine sample with you to every appointment. This allows pre-eclampsia to be identified before other symptoms develop.

Further symptoms

Please tell your midwife or obstetrician if you are experiencing any of the following symptoms:

- persistent headaches
- sudden swelling of your face, hands or feet
- blurred vision, flashing lights or spots in front of your eyes
- pain below your ribs (especially on your right-hand side)
- feeling sick (nausea) or vomiting
- heartburn that doesn't go away with antacid medicines (medicines that counteract (neutralise) the acid in your stomach to relieve indigestion and heartburn)

Pre-eclampsia can develop gradually or suddenly. If you are concerned between appointments, contact our maternity triage line on **0300 123 9001** (24-hour line) immediately.

What can I do to reduce my chance of developing pre-eclampsia?

Diet and exercise

Although it is not possible to completely remove the risk of developing pre-eclampsia, there are steps you can take to help reduce your risk. These include:

- maintaining a healthy diet
- exercising regularly

For more information about diet and exercise, speak to your midwife.

Monitoring your blood pressure at home

If you have pre-eclampsia or are at higher risk of developing pre-eclampsia, we may advise you to monitor your own blood pressure at home. If this is appropriate for you, we will give you:

- a blood pressure monitor (we will show you how to use it)
- a chart to record your blood pressure readings
- clear guidance about steps to take based on your blood pressure readings

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How often you will need to take blood pressure readings will vary depending on your individual circumstances. Your midwife or obstetrician will give you specific advice about this.

For more information about blood pressure monitoring, please ask your midwife or read our 'Self-monitoring of blood pressure during pregnancy' factsheet (see 'Useful links' section on page 8).

Low-dose aspirin

If you have pre-eclampsia or are at higher risk of developing pre-eclampsia, we may advise you to take a low dose of aspirin.

There is evidence that taking low-dose aspirin (150mg) every day between week 12 and week 36 of pregnancy reduces the risk of pre-eclampsia. For more information about this, please speak to your midwife or obstetrician or read our 'Low-dose aspirin (150mg) in pregnancy' factsheet (see 'Useful links' section on page 8).

Can pre-eclampsia lead to other complications?

If pre-eclampsia is severe, it can cause the following complications:

- eclampsia
- HELLP syndrome
- stroke (the blood supply to the brain can be interrupted as a result of high blood pressure - this is known as a stroke, and it can affect your speech and movement)

Eclampsia

Eclampsia occurs as a complication of pre-eclampsia and is a type of fit (a seizure or convulsion). It causes your arms, legs and face to twitch involuntarily and can also cause a loss of bladder control (causing you to wet yourself) or a loss of consciousness. There is a small risk of brain damage or a permanent disability if the fit is exceptionally severe. Eclampsia can also be life threatening. However, if it is treated quickly, you are likely to make a full recovery.

Eclampsia is rare in the UK, affecting approximately 1 in every 4,000 pregnancies. This is due to close monitoring of symptoms. We will prescribe you magnesium sulphate if you have eclampsia or are at risk of developing eclampsia, as this reduces your likelihood of a seizure.

Almost half of all eclamptic seizures occur after birth. Your risk is highest in the first week after the birth of your baby but can occur anytime during the first six weeks after your baby is born.

If you experience any symptoms of eclampsia, contact the maternity triage line on **0300 123 9001** (24-hour line) immediately.

In an emergency, call **999** for an ambulance.

HELLP syndrome

HELLP syndrome is a rare liver and blood clotting disorder that occurs in about 1 in 200 pregnancies but is more common in pregnancies that are already affected by severe pre-eclampsia. It is most likely to develop immediately after a baby is born, but can develop any time after 20 weeks of pregnancy. In rare cases, it can develop before 20 weeks.

HELLP syndrome can occur after pre-eclampsia has been diagnosed or it may be the first warning sign of pre-eclampsia.

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HELLP stands for 'Haemolysis, elevated liver enzymes and low platelets':

- **Haemolysis** – this is where the red blood cells in the blood break down
- **Elevated liver enzymes (proteins)** – a high number of enzymes in the liver is a sign of liver damage
- **Low platelet (blood cells that help the blood to clot) count** – a low number of platelets in the blood increases the risk of serious bleeding problems

Like pre-eclampsia, HELLP syndrome can also lead to eclampsia.

If you develop HELLP syndrome, we will:

- closely monitor the wellbeing of both you and your baby
- discuss plans for you giving birth to your baby with you (the timing of this will depend on how many weeks pregnant you are and the severity of your symptoms)
- offer you medication to regulate your blood pressure (this medication will help to reduce the likelihood of eclampsia (fits) developing)

How is pre-eclampsia treated?

Pre-eclampsia can only be cured by you giving birth to your baby and placenta. The timing of your baby's birth will depend on the:

- severity of your symptoms
- wellbeing of your baby
- number of weeks pregnant you are

We will monitor you carefully throughout your pregnancy and arrange any necessary tests, including regular:

- blood pressure readings
- urine tests (to check your protein levels)
- blood tests (to check your kidney and liver health)

We may also prescribe you medication to lower and control your blood pressure to help reduce the likelihood of you developing eclampsia.

Please note that we may admit you to hospital for monitoring and treatment if we have any concerns about you or your baby.

How may pre-eclampsia affect my baby?

Monitoring your baby's growth and development during pregnancy

Pre-eclampsia affects the way your baby's placenta develops and functions during pregnancy. This can cause a reduction in the supply of blood and nutrients your baby receives, which can affect their growth and development.

If we have any concerns about your baby's growth and development during your pregnancy, we will offer you additional ultrasound scans to assess their wellbeing. We may also monitor your baby's heart rate. Your midwife and obstetrician will discuss how often you will need these tests with you and answer any questions you may have.

Reducing the likelihood of stillbirth

There is an increased likelihood of stillbirth (the loss of your baby after 24 weeks of pregnancy or during birth) if you have pre-eclampsia. Your midwife or obstetrician will discuss this with you in more detail. They will also discuss the monitoring you and your baby will receive and answer any questions you may have.

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It is important that you become familiar with your baby's usual daily pattern of movements and contact the maternity triage line (our 24-hour helpline) on **0300 123 9001** immediately if you feel that the movements have changed.

The birth of your baby

The timing of your baby's birth will depend on several factors, including:

- how severe your symptoms of pre-eclampsia are
 - the effect the condition is having on your wellbeing and the wellbeing of your baby
 - how many weeks pregnant you are
- **If you are less than 37 weeks pregnant** - Your obstetrician will discuss the timing of your baby's birth with you as it is important to balance the health and wellbeing of you and your baby with the disadvantages of your baby being born prematurely (before 37 weeks). Your obstetrician may also discuss corticosteroid medication (medication to help improve your baby's lung development before they are born) and any additional care and support your baby will receive from our neonatal (baby) team immediately after they are born.
 - **If you are more than 37 weeks pregnant** - Your obstetrician will discuss the birth of your baby with you and answer any questions you may have. We recommend that you give birth to your baby on the labour ward at Princess Anne Hospital in Southampton to ensure you receive appropriate medical care and support. In most cases of pre-eclampsia, having your baby at about the 37th to 38th week of pregnancy is recommended. This may mean that your labour needs to be started artificially (known as induction of labour) or you may need to have a caesarean birth (an operation to deliver your baby through a cut made in your tummy and womb). It is important that you discuss these options with your obstetrician. For more information about induction of labour, please read our 'Induction of labour' booklet (see 'Useful links' section on page 8).

You may also wish to discuss collecting colostrum (the first breast milk your body makes) with your midwife if you are planning to breastfeed your baby. Collecting your colostrum before your baby is born is especially beneficial for your baby if:

- there are concerns about their growth and development
- they are likely to have difficulties with feeding or maintaining their blood sugar levels during the first few days after birth

For more information about collecting colostrum, please read our 'Collecting your colostrum while you are pregnant' factsheet (see 'Useful links' section on page 8).

What care will I receive after the birth of my baby?

After giving birth, your symptoms of pre-eclampsia will usually improve. However, in a small number of cases, symptoms may get worse after giving birth and for those who haven't developed pre-eclampsia during their pregnancy, evidence shows that about 5 in every 100 will develop the condition after the birth of their baby for the first time.

It is important that if you experience any signs or symptoms of pre-eclampsia after the birth of your baby (see page 2), you contact the maternity triage line on **0300 123 9001** (24-hour line) immediately.

Blood pressure

If you developed pre-eclampsia during your pregnancy, it may take several days or weeks for your blood pressure to return to a normal level after your baby's birth. This means you may need to spend longer on the postnatal ward than you expected so we can monitor your wellbeing.

Your obstetrician will discuss your follow-up care plan with you before you go home. During this conversation, your obstetrician will discuss:

- your medication (we may advise you to start or continue taking medication to lower your blood pressure – see 'Medication' section below for more information)
- monitoring your blood pressure (we will discuss how and when to measure your blood pressure at home using a blood pressure monitor and who to contact with your readings)
- any follow-up appointments you will need (these may be with your obstetrician or general practitioner (GP))

Medication

Before you leave hospital, we will advise what medications you need to take and how often you need to take them.

Antihypertensive medications (medications used to lower blood pressure) should not be stopped without close medical supervision, and this should usually be done gradually. Wherever possible, we will prescribe medication that only needs to be taken once a day.

If you were taking methyldopa to treat pre-eclampsia during your pregnancy, we will prescribe you an alternative antihypertensive medication within two days of your baby's birth. This is because methyldopa has been associated with postnatal depression (a type of depression that you may experience after having a baby).

Please discuss your medication and any concerns you may have with your obstetrician before you leave hospital.

If you are breastfeeding your baby, it is important to note that:

- the blood pressure medications we will prescribe for you are safe for your baby
- small amounts of the medication will pass into your breastmilk, but this is not likely to have any effect or be harmful for your baby

Contact our community midwifery co-ordinator on **023 8120 4871** (every day, 8am to 5pm) or Broadlands Birth Centre on **023 8120 6012** (out of hours) immediately if your baby:

- has cold hands and feet
- is pale or drowsy
- is reluctant to feed

or if you have any concerns about your baby's wellbeing.

If your baby is having trouble breathing or you are unable to wake your baby, call **999** for an ambulance.

Please ensure your midwife or paediatrician (a doctor specialising in conditions affecting infants, children and young people) is aware of the medication you are taking.

Will pre-eclampsia affect any future pregnancies?

If you have pre-eclampsia during this pregnancy, it is more likely to occur again during any future pregnancies. However, how likely this will be will depend on how pregnant you were when you gave birth.

The chances of developing pre-eclampsia in a future pregnancy are:

- 1 in 6 if you gave birth after 37 weeks
- 1 in 4 if you gave birth between 34 and 37 weeks
- 1 in 3 if you gave birth between 28 and 34 weeks

Although you will not be able to completely remove the risk of developing pre-eclampsia again during a future pregnancy, there are steps you can take to help reduce your risk. These include:

- maintaining a healthy diet
- exercising regularly

We may also advise you to take a low dose of aspirin every day in any future pregnancies to reduce your risk of high blood pressure. If this is the case, your obstetrician will discuss the timing and the dose of this with you.

How will pre-eclampsia affect me long term?

If you have pre-eclampsia during or immediately after your pregnancy, you have a slightly higher chance of developing:

- high blood pressure (hypertension)
- cardiovascular disease (heart attack or stroke)

While the overall risk of developing these is low, making healthy changes to your lifestyle can help to reduce your risk. We recommend:

- stopping smoking
- exercising regularly
- eating a healthy, well-balanced diet
- maintaining a healthy weight

For more information and advice about how to make these lifestyle changes and the support available to you, please speak to your midwife or GP.

Contact us

If you have any further questions or would like to discuss pre-eclampsia in more detail, please do not hesitate to contact your midwife, health visitor (a specialist community public health nurse who supports families with children under the age of 5) or obstetrician.

Community midwifery co-ordinator

Telephone: **023 8120 4871** (every day, 8am to 5pm)

Broadlands Birth Centre

Telephone: **023 8120 6012** (out of hours)

Maternity infant feeding team

Telephone: **07786 267584** (voicemail available)

If you experience any symptoms of pre-eclampsia (see page 2), contact our maternity triage line on **0300 123 9001** (24-hour line).

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Useful links

NHS

www.nhs.uk/conditions/pre-eclampsia

Tommy's

- Pre-eclampsia
www.tommys.org/pregnancy-information/pregnancy-complications/pre-eclampsia-information-and-support
- Premature (preterm) birth
www.tommys.org/pregnancy-information/premature-birth

Action on Pre-eclampsia

www.action-on-pre-eclampsia.org.uk

BUMPS (Best Use of Medicines in Pregnancy)

www.medicinesinpregnancy.org

UHS factsheets

- Low-dose aspirin (150mg) in pregnancy
www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Pregnancyandbirth/Low-dose-aspirin-150mg-in-pregnancy-2239-PIL.pdf
- Self-monitoring of blood pressure during pregnancy
www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Pregnancyandbirth/Self-monitoring-of-blood-pressure-during-pregnancy.pdf
- Collecting your colostrum while you are pregnant
www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Pregnancyandbirth/Collecting-your-colostrum-while-you-are-pregnant-1461-PIL.pdf
- Induction of labour
www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Pregnancyandbirth/Induction-of-labour.pdf
- Signs that your baby may be unwell
www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Pregnancyandbirth/Signs-that-your-baby-may-be-unwell-587-PIL.pdf
- Checking that your baby is well: A guide to your baby's first two weeks
www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Pregnancyandbirth/Checking-your-baby-is-well-1165-PIL.pdf

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