

Fact Sheet

High blood pressure (hypertension) in pregnancy

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INTRODUCTION

High blood pressure (hypertension) problems in pregnancy are quite common, affecting about 10 – 15% of women. Most of the time they are not serious but occasionally they can be.

While high blood pressure can cause health problems for pregnant women and their babies, it mostly does not give you any symptoms. Therefore, checking your blood pressure is one of the most important reasons for having regular antenatal check-ups during pregnancy.

BLOOD PRESSURE CHANGES in PREGNANCY

Blood pressure generally goes down in the first half of pregnancy to a level slightly lower than it was before pregnancy. After about 22 weeks, it then moves back up to its usual level.

While most pregnant women have blood pressure in the normal range (below 140 / 90 mmHg), about 1 in 8 will have higher blood pressure than normal. This may have been present before pregnancy (chronic hypertension) or may be caused by the pregnancy (pregnancy-induced hypertension).

There are 4 types of hypertension in pregnancy:

- Chronic
- Gestational (caused by the pregnancy - involves just high blood pressure)
- Pre-eclampsia (caused by the pregnancy – a more severe form of gestational hypertension, involves other body systems)
- Chronic + pre-eclampsia.

Well-controlled chronic hypertension and mild gestational hypertension are usually the most common and generally don't cause many problems.

Pre-eclampsia (occurring in up to 5%) can be more serious but thankfully, most cases are mild.

1. Chronic (pre-existing) hypertension

- is when you already have high blood pressure before your pregnancy
- you may already know about this or we may discover it for the first time when we check your blood pressure early in pregnancy
 - if we find high blood pressure for the first time in early pregnancy we may do some tests looking for a reason but mostly there isn't a special cause – high blood pressure may just run in your family or you may be carrying too much weight
- if chronic hypertension is mild and under good control, it generally causes few problems in pregnancy – this is the situation for most women
- however, pre-eclampsia does develop more commonly in women with chronic hypertension, and the two conditions together can pose some risks to your health (see below)
- in addition, if your high blood pressure has been present for a long time or if it is severe, or if you have kidney problems or diabetes or other medical concerns, it may sometimes cause problems for you and the baby; we will watch you closely to manage any problems



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2. Gestational hypertension

- this is when your blood pressure is normal until after 20 weeks of pregnancy when it goes up
- no other body systems are involved and blood tests for liver, kidneys, blood cells are normal
- generally, there is little risk to you or your baby
- however, gestational hypertension can sometimes develop into pre-eclampsia; this is more common if you develop gestational hypertension long before the end of pregnancy

3. Pre-eclampsia

- is a **more severe** form of gestational hypertension
- other systems in your body are affected and not working normally; these can include your kidneys, liver, blood cells, blood vessels and brain; many blood tests become abnormal
- pre-eclampsia may also affect your baby's growth and good health
- pre-eclampsia occurs in about 5% of pregnancies
- mostly pre-eclampsia is mild, coming on after 34 weeks and worsening only very slowly
- sometimes, however, it can come on before 34 weeks and/or become severe quite quickly (about 0.5 – 1% of pregnancies)
- there is usually protein in your urine and you may also develop swelling of your hands and face
- in more serious cases there can be blurred vision, ongoing headaches, pain in the upper abdomen (tummy) and vomiting
- the old-fashioned name for pre-eclampsia is 'toxaemia'
- See over-page for more detailed information about pre-eclampsia

4. Pre-eclampsia on top of chronic hypertension

- women with high blood pressure before pregnancy are more likely to develop pre-eclampsia:
 - 25% chance of pre-eclampsia overall
 - up to 45% chance of pre-eclampsia if the blood pressure is extremely high in early pregnancy
 - we watch these women particularly closely

HOW HYPERTENSION IS MANAGED

- Whether you already had high blood pressure before you fell pregnant or you develop it during your pregnancy, you will generally need to have **more visits**, either to the antenatal clinic or to the day assessment unit (DAU)
- At these visits, we will check your **urine** and **blood pressure**, sometimes **blood tests** as well
- You may also need to have regular **CTG** monitoring (heart tracing of your baby) (see also *Fact Sheet on CTG monitoring*) and/or an **ultrasound** to check on the baby's growth may be organised
- Sometimes we may advise you to start on **medication** (or to change your current medication) to help control your blood pressure. We will only recommend medication which is safe for you and your baby

Over 30,000 Australian women have high blood pressure in pregnancy every year. In almost all cases, both mother and baby do well.

Following the advice of your pregnancy team is the best thing you can do.

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MORE SEVERE CASES OF HYPERTENSION IN PREGNANCY

For most women with high blood pressure, the problem is only mild and develops near the end of pregnancy when it is easy to manage.

However occasionally blood pressure can be **very high** or it can **come on earlier in pregnancy** or else **pre-eclampsia** may develop and involve other body systems.

In these situations, very close care is needed, which may include:

- more frequent monitoring of you and the baby.
- admission to hospital
- early delivery of the baby

But remember, even in these situations, both mother and baby usually do well.



MORE INFORMATION about PRE-ECLAMPSIA

Pre-eclampsia is a more severe form of gestational hypertension. It affects many other body systems and can affect the baby's growth and health.

Any pregnant woman can develop pre-eclampsia but you **have a higher chance** if:

- this is your first pregnancy, or your first pregnancy with a new partner
- you are aged 40 or older
- you are overweight
- your mother or sister had pre-eclampsia
- you are carrying more than one baby
- your blood pressure was high before you became pregnant
- your blood pressure was high in a previous pregnancy
- you have other illnesses like kidney problems or diabetes or an immune problem such as systemic lupus erythematosus (SLE, 'lupus')

Serious risks due to pre-eclampsia are rare - fewer than 1% of women with pre-eclampsia develop the risks listed below (except mild HELLP syndrome which is a little bit more common).

We will keep a close watch over you to prevent risks as much as is possible and to manage them if they look like developing.

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Risks for you from pre-eclampsia include:

- HELLP syndrome – this is where the liver and blood clotting systems are abnormal; severe abnormalities are rare, but mild abnormalities are quite common
- eclampsia - convulsions (fits, seizures)
- stroke – if the blood pressure becomes extremely high
- fluid on the lungs – if the heart can't pump as well as usual
- kidney failure or bleeding into the liver

Risks for your baby from pre-eclampsia include

- sometimes the placenta which feeds the baby may be affected; this may **slow** your baby's **growth**; if your baby stops growing then she/he may need to be delivered early (prematurely)
- while being **born prematurely** may mean your baby needs to stay in the special care nursery for a number of weeks after birth, sometimes early birth is the safest decision for the baby
- note, the vast **majority** of babies born to women with pre-eclampsia do very **well**

Most women have only mild pre-eclampsia and do not develop serious problems or any symptoms – they just need to have regular check-ups in the Clinic or Day Assessment Unit (DAU).

Sometimes however, pre-eclampsia can be more serious – if you develop any of the symptoms listed below, please immediately contact your doctor, midwife or the Birth Unit.

Symptoms to look out for in pre-eclampsia

- Mostly there are no symptoms at all with pre-eclampsia and it is only detected by your midwife or doctor checking your blood pressure and urine
- However, if pre-eclampsia becomes more severe, you may experience some of the following symptoms. In fact, sometimes these symptoms may be the first clue a problem is developing
- **Pre-eclampsia symptoms** may include:
 - a severe headache that doesn't go away with simple painkillers like paracetamol
 - problems with vision such as blurring or flashing in front of the eyes that is persistent (lasts for more than a few seconds)
 - severe pain in the upper abdomen (tummy)
 - vomiting
 - rapidly increasing swelling of the face or hands
 - feeling very unwell
 - note: most women with pre-eclampsia do not get these symptoms



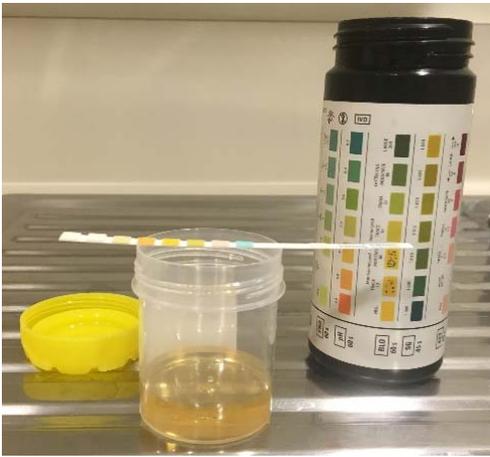
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How is pre-eclampsia diagnosed?

- Usually the diagnosis is first made when you attend for a routine antenatal clinic visit and you are found to have
 - **high blood pressure** and / or
 - an abnormal amount of **protein in your urine**.



Increased protein in the urine in pre-eclampsia

Ongoing care in pre-eclampsia

- Once we diagnose or suspect pre-eclampsia, we often organise
 - **blood tests** to check on other organs which can be affected such as the kidneys and liver and also the blood cells that are responsible for helping your blood to clot
 - an **ultrasound** to check the growth of your baby
 - a heart-beat tracing (**CTG**) on your baby
- Depending on the results, you will be advised to visit the clinic or day assessment unit (DAU) more often or you will be admitted to hospital where you and your baby can be more closely watched

How is pre-eclampsia treated?

- Unfortunately, **the birth of the baby is the only cure** for pre-eclampsia
 - If you are **near the end** of your pregnancy, then we will usually advise you to have the baby a bit earlier. There is little or no risk to your baby if it is born only a few weeks before your due date
 - If you develop pre-eclampsia **much earlier in the pregnancy** we will keep close watch over your blood tests and your baby's wellbeing.
- We may also start you on **medication** to control your blood pressure. Note though that this medication just controls your blood pressure - it does not control the pre-eclampsia effects on other body systems or the placenta
- **If your blood tests worsen or your baby stops growing** well before your due date, we need to balance the risks of the pre-eclampsia against the risks to the baby from being born very early. At some point we will generally advise you that the baby needs to be delivered.
- Sometimes, if birth is necessary well before your due date (very **premature**), we will give you a **steroid** injection before the birth to help strengthen and mature the baby's lungs to make breathing easier after birth
- If your pre-eclampsia is severe around the time of birth, you may be given a drip (infusion into your vein) of a medication called **magnesium sulphate** to lower the chance of you having fits (eclampsia). This drip will usually be continued for 24 hours after the baby is delivered.
- We will also consider whether you can have an **epidural anaesthetic** during the birth. An epidural will help control your blood pressure and is often a good idea. However, if your blood clotting cells are affected by the pre-eclampsia, an epidural may not be suitable for you – in that case, other options will be discussed.

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HYPERTENSION – AFTER THE BIRTH

What happens in the days and weeks after the birth of your baby generally depends on the sort of hypertension you have.

Pre-eclampsia can still pose risks to you for the first few days after birth, while mild **gestational hypertension** and **chronic hypertension** without pre-eclampsia generally don't.

If you have **pre-eclampsia**:

- Your **abnormal blood tests** will start to return to normal over coming days although they can sometimes get worse in the first 48 hours
- Your **symptoms**, if you have them, will also start to resolve within 48 hours although complications can still occur over the first few days

Blood Pressure Readings after Birth:

For **all women**, including those with chronic or gestational hypertension and those who have no hypertension at all, **blood pressure** drops slightly on day 1 **after birth** and then generally **goes up slightly, reaching a peak on around day 3 – 6 and staying up for about 2 weeks** before beginning to drop back to its usual level.

- This blood pressure rise is probably due to the **fluid and sodium** stored in your body during the pregnancy coming out of the tissues into the blood vessels and makes them fuller than usual; the fluid and sodium are soon passed out in your urine
- This blood pressure rise and how long it lasts is generally greater in women with **pre-eclampsia** than those **gestational hypertension** or uncomplicated **chronic hypertension**
- This tendency for blood pressure to remain elevated for a while after birth means that many women on blood pressure **medication** need to continue it for 2 – 6 weeks after the baby is born

If you have pre-eclampsia or any type of high blood pressure, our staff will watch you closely after birth to make sure everything is settling down well.

Almost all women are able to go home within a few days of the birth.

Seeing Your GP After You Go Home

- **If you are on blood pressure medication** at the time of hospital discharge, you must see your GP regularly over the next few weeks and months to make sure you are in good health:
 - See your **GP 2 days after discharge and every 2 days** until the GP is happy that your blood pressure is stable
 - Follow your GP's instructions about when the medication dosage can be **reduced** and then (generally) **stopped**
 - Note that a small number of women, just over **10%**, will find their **blood pressure does not go back to normal in the months after pregnancy**. If this happens to you, it generally means you have an underlying blood pressure issue you didn't know about before. Follow up with your GP about this



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HYPERTENSION – THE NEXT PREGNANCY

If you have **chronic hypertension**, this is probably something you will always have, including during pregnancy, although some women who lose weight and get fit find their blood pressure does go back to normal.

If you developed high blood pressure which then went away after pregnancy (**gestational hypertension or pre-eclampsia**), you do have a **higher risk** than other women of developing it again:

- however, there is also a pretty good chance that it won't develop next time
- and if it does develop again, it usually starts later in pregnancy and is less severe than the first time
- staying in the healthy weight range and exercising every day between your pregnancies can reduce your risk

If you have had any blood pressure problems in pregnancy or between pregnancies, you should **see your GP** as soon as you know you are pregnant next time so you can be referred early to the hospital or your obstetrician.

In early pregnancy, your doctor may ask you to commence half an **aspirin** a day to reduce the risk of developing pre-eclampsia and may also suggest **calcium** tablets, especially if you don't have a lot of calcium in your diet. Calcium is found in foods like milk and cheese.

If you are on **medication** for high blood pressure between pregnancies, check with your GP or obstetrician before you get pregnant whether the medication is **safe** for pregnancy or needs to be changed to something different.

HYPERTENSION – YOUR FUTURE HEALTH

If you had any high blood pressure problem in pregnancy, even if it went away after the pregnancy, you have an increased risk of having **high blood pressure, a heart attack or a stroke** at a younger age than other women as you get older.

You can greatly reduce this risk and improve the quality of your health by

- **exercising** every day
- **eating** a healthy diet
 - lots of **vegetables** and salads
 - cut down on **sodium** (salt) - read the label and avoid foods high in sodium and try not to add salt to your food
- keeping in the healthy **weight** range
- not **smoking**
- having your blood pressure **checked** regularly



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