

## Pre-eclampsia

Pre-eclampsia is a serious disorder of pregnancy characterised by high maternal blood pressure, protein in the urine and severe fluid retention. It is the most common serious medical complication of pregnancy, affecting around five to 10 per cent of all pregnancies in Australia. One to two per cent of cases are severe enough to threaten the lives of both the mother and her unborn child.

Pre-eclampsia accounts for one in five inductions and one in six Caesarean sections. The mechanisms behind the condition are mysterious, but genetic factors and the placenta seem to play significant roles. For reasons unknown, pre-eclampsia tends to be more common in first, rather than subsequent, pregnancies. The mother's blood pressure usually returns to normal after the baby and placenta are delivered.

### Effects on the mother

Pre-eclampsia may develop at any time during the second half of pregnancy, but commonly develops during the later stages of pregnancy. Pre-eclampsia most commonly causes high blood pressure and protein in the urine. It can also have a large spectrum of effects and potentially involve most body organs. In its most severe forms, it can cause problems in the kidneys, liver, brain and blood (in particular, the coagulation system). It is difficult to predict who will be affected, but certain women appear to be more at risk than others, including:

- Women experiencing their first pregnancy
- Those with pre-existing high blood pressure or some other types of vascular disease
- Women with a family history of the condition
- Diabetics
- Women pregnant with multiple fetuses.

### The disorder can be asymptomatic

Contrary to popular belief, there is no evidence that pre-eclampsia is caused by emotional stress, working too hard or not getting sufficient bed rest. Pre-eclampsia initially has no obvious symptoms and most women with the condition feel fine. That's why regular antenatal checks are so important. Pre-eclampsia is suspected if there is:

- A sudden elevation in blood pressure (above levels at the start of pregnancy)
- Proteinuria (protein in the urine).

### Serious signs

If left untreated, pre-eclampsia can lead to convulsions, kidney failure, liver failure, clotting problems or death. Some of the advanced symptoms of the disorder include:

- Dizziness
- Headache
- Visual disturbances, such as flashing lights
- Abdominal pain just below the ribs
- Nausea and vomiting.

### Effects on the unborn baby

Around five to 10 per cent of pre-term deliveries in Australia are due to pre-eclampsia or its associated complications. In utero, the baby is sustained by a special organ of pregnancy called the placenta. This organ allows oxygen and nutrients to pass from the mother's bloodstream to the baby, and waste products (such as carbon dioxide) to pass from the baby's bloodstream to the mother.

In pre-eclampsia, blood flow to the placenta becomes sluggish. In severe cases, the baby can be gradually starved of oxygen and nutrients, which may affect its growth. This growth restriction threatens the life of the baby and it is then necessary to deliver the baby prematurely. Another serious complication of pre-eclampsia is *abruptio placentae*, which means the placenta separates from the uterine wall and the woman experiences vaginal bleeding and abdominal pain. This is a medical emergency.

## Diagnosis and treatment

Some symptoms of pre-eclampsia, such as fluid retention, are also typical of normal pregnancy. This means that some women may dismiss the early warning signs. Regular antenatal checks are vital. At present, there is no way to cure pre-eclampsia. Sometimes medication is needed to control blood pressure and prevent convulsions, and the woman may benefit from resting. The only cure is to deliver the baby and the placenta.

## Current research

Maternal deaths are very rare; however, pre-eclampsia and its associated complications are responsible for around 15 per cent of maternal deaths. Medical researchers are looking for ways to predict pre-eclampsia, in order to further minimise the risks for susceptible mothers and their babies. Since pre-eclampsia tends to run in families, scientists are currently looking for the specific gene(s) which predispose a person to this condition. If discovered, it is hoped there will eventually be a pre-pregnancy test for the condition.

## Where to get help

- Your doctor
- Midwife
- Obstetrician

## Things to remember

- Pre-eclampsia is a serious condition of pregnancy, usually characterised by high blood pressure, protein in the urine and swelling.
- Most women with pre-eclampsia feel fine, which means that regular antenatal check-ups are vital.
- There is no cure for the condition, except delivery of the baby and the placenta.

**This page has been produced in consultation with, and approved by:**

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