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# Preeclampsia and pregnancy

The purpose of this leaflet is to provide the patient with information on the nature, occurrence, risk factors, symptoms and treatment of preeclampsia.

# What is preeclampsia?

Preeclampsia is a condition that occurs during pregnancy and is characterised by high blood pressure and the presence of protein in the urine. Preeclampsia is one of the most common complications of pregnancy. Severe preeclampsia causes seizures that are similar to epileptic seizures and can be life-threatening.

## What symptoms may indicate the development of preeclampsia?

**High blood pressure** (140/90 mmHg or greater). An increase of 30 mmHg or more in systolic (the top number) or diastolic (the bottom number) blood pressure should not be ignored.

Protein in urine (300 mg in a 24-hour urine collection or +1 on urine dipstick)

**Swelling of the hands, feet or face,** especially under the eyes or when pressing down on the skin leaves an indentation. Swelling is common in pregnancy and is usually no cause for concern. However, sudden or severe swelling requires medical attention.

**Headache** that cannot be alleviated with painkillers.

Visual disturbances (double or blurred vision, spots or flashes in front of the eyes, auras).

**Nausea or upper abdominal pain,** often mistaken for indigestion or gallbladder disease. Nausea towards the end of pregnancy is not normal.

Sudden weight gain (2 kg or more in a week).

Preeclampsia is typically mild and develops towards the end of pregnancy. Outlook for patients with mild preeclampsia is good. Sometimes preeclampsia can worsen very quickly and endanger both the mother and the foetus. In such cases, prompt diagnosis and close monitoring of the mother and foetus are essential.

Unfortunately, most women have no symptoms until the condition becomes severe. If you experience any of the symptoms described above, you should contact your midwife or gynaecologist or seek emergency care at the Women's Clinic.

## Is preeclampsia also called toxaemia?

In the past, preeclampsia was indeed called toxaemia because it was believed that the condition was caused by toxins present in the pregnant woman's bloodstream.

What is the difference between preeclampsia and gestational hypertension?

Gestational hypertension refers to high blood pressure that develops after 20 weeks of pregnancy. Women with gestational hypertension have no protein in their urine.

## What is HELLP syndrome?

HELLP syndrome is one of the most severe forms of preeclampsia. HELLP syndrome is rare and sometimes occurs before the onset of preeclampsia symptoms. HELLP syndrome can often be misdiagnosed as the symptoms are similar to those of other conditions, such as the common cold or gallbladder disease.

#### When does preeclampsia occur?

Preeclampsia typically develops after 20 weeks of pregnancy. In most cases, preeclampsia resolves after delivery; however, complications may persist for up to six weeks after delivery. During this time, your condition should be closely monitored. If your blood pressure does not return to normal by the sixth week after giving birth, you should see a cardiologist who will prescribe medications to lower your blood pressure.

#### What causes preeclampsia?

The precise aetiology of preeclampsia remains unknown; however, several theories have been proposed.

## What effects can preeclampsia have on pregnant women and her pregnancy?

Although most women with preeclampsia deliver healthy babies, it is a very serious condition. In fact, preeclampsia is one of the leading causes of pregnancy-related deaths. Preeclampsia may result in damage to the kidneys, liver and other vital organs, and if left untreated, it can cause seizures (eclampsia), cerebral haemorrhage, multiple organ dysfunction syndrome and death.

#### What effects can preeclampsia have on the foetus?

With preeclampsia, the foetus does not get enough oxygen and nutrients, which may lead to intrauterine growth restriction. In addition, the placenta may separate from the uterine wall before the baby is born. Since the only cure for preeclampsia is delivery, pregnancy must sometimes be terminated prematurely. Before the 34th week of pregnancy, foetal lungs are not fully developed, so the pregnant woman is given intramuscular steroid injections to accelerate lung maturation. In addition to lung immaturity, many other complications are associated with preterm birth.

#### Who is at risk for preeclampsia?

Preeclampsia occurs in around 8% of pregnant women, many of whom have no known risk factors.

### What are the risk factors for preeclampsia?

#### Maternal risk factors

- First pregnancy
- · History of preeclampsia
- Age (>40 years or <18 years)</li>
- · High blood pressure before pregnancy
- · Diabetes diagnosed before or during pregnancy
- · Multiple pregnancy
- Obesity (BMI >30)
- · Lupus or other autoimmune disease
- · Polycystic ovarian syndrome
- · Long interval between pregnancies

#### Family risk factors

- · Family history of preeclampsia
- · Family history of hypertension or cardiovascular disease
- · Family history of diabetes

## How is preeclampsia prevented and treated?

During the OSCAR test in the first trimester, the risk of preeclampsia is assessed in addition to the risk of the most common chromosomal abnormalities. It is recommended that women at higher risk for preeclampsia take 150 mg of aspirin (acetylsalicylic acid) once a day in the evenings until the 36th week of pregnancy. This reduces the chance of having preeclampsia before the 34th week of pregnancy by up to 80%.

The only cure for preeclampsia is delivery. Vaginal delivery is possible; however, severe preeclampsia requires an emergency caesarean section. The best time for delivery is after the 37th week of pregnancy. Bed rest, medications and, if necessary, hospitalisation can sometimes help control the condition and delay delivery. Pregnant women with preeclampsia are often admitted to the hospital, as the condition of the foetus and the woman may worsen unexpectedly.

## Does bed rest help?

Sometimes bed rest is enough to control the symptoms of mild preeclampsia. In this case, the patient has regular appointments with the doctor who checks blood pressure, orders blood and urine tests and monitors the course of the condition. In addition, foetal wellbeing is regularly assessed using cardiotocography (CTG) and ultrasound.

## Are medications used to treat preeclampsia?

Tablets are sometimes prescribed to lower high blood pressure. The medications used have few side effects and are only prescribed if the benefits of using the medications outweigh the risk to the foetus.

Eclampsia is a rare but serious complication of preeclampsia. To prevent eclampsia, magnesium sulphate is sometimes administered intravenously during and after delivery. It is safe for the foetus, but the woman may experience side effects such as hot flushes, sweating, thirst, visual disturbances, mild confusion, muscle weakness and shortness of breath. All side effects disappear when the medication is stopped.

#### Can preeclampsia recur?

Preeclampsia may not recur in subsequent pregnancies; however, the main risk factor for preeclampsia is the occurrence of preeclampsia in previous pregnancies. The probability of recurrence depends on the severity of previous preeclampsia and maternal health before pregnancy. A woman who has previously had preeclampsia should consult a gynaecologist during a new pregnancy or when planning a pregnancy.

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