

HUMAN HEALTH

ENVIRONMENTAL HEALTH

PRE- ECLAMPSIA SCREENING

A GUIDE FOR PARENTS

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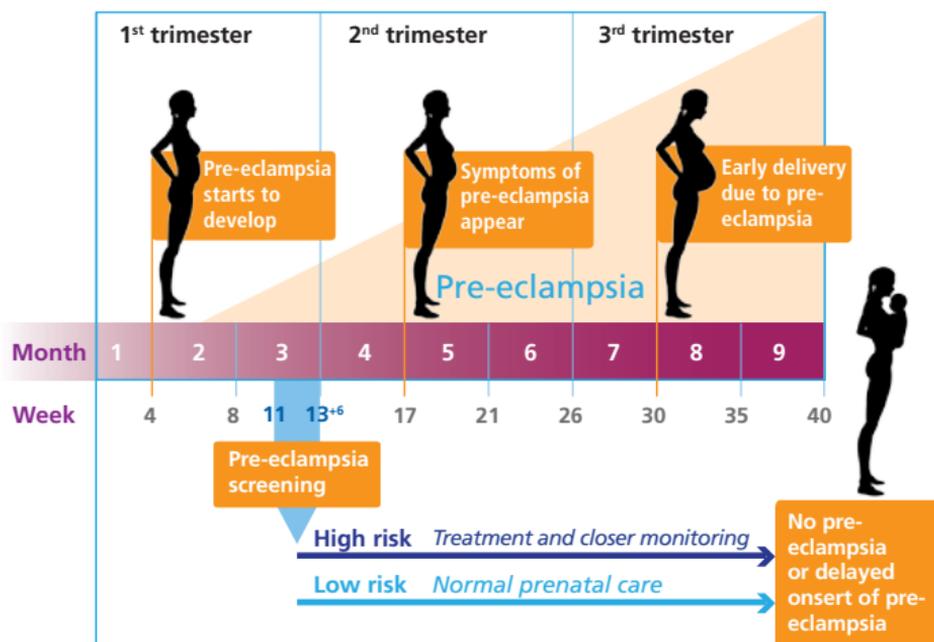

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DID YOU KNOW?

- **Pre-eclampsia is a serious pregnancy complication.**
- **You can find out about your risk of developing pre-eclampsia by arranging a visit to your doctor between weeks 11 to 14.**
- **Finding out if there is a high risk of pre-eclampsia requires pre-eclampsia screening. This involves a specific blood test, together with measurement of blood pressure and, in some cases, an ultrasound examination.**

Being screened for high risk of pre-eclampsia is an important step you can take to protect the health of both yourself and your baby.



Signs of pre-eclampsia can be detected by screening tests early in pregnancy. If the risk of pre-eclampsia is found to be high, treatment to delay or prevent the disease can be started right away².

Pre-eclampsia

Most women have normal healthy pregnancies. Pre-eclampsia, however, is a relatively common complication, being found in between two and eight of 100 pregnancies¹. Pre-eclampsia is an illness you can get only during pregnancy (at any time after 20 weeks of pregnancy) or up to six weeks after birth. It can affect you and your unborn baby. If it is predicted in time, it can be monitored and treated².

What is the cause?

The exact cause of pre-eclampsia is not known, but it is recognized that problems in the placenta are involved. The placenta connects you to your unborn baby and delivers food/nutrients and oxygen from your blood to the baby. In pre-eclampsia the placenta can't get as much blood from you as it needs and this affects you and your baby in different ways.

What is the preventive care?

Preventive care of pre-eclampsia high risk cases aims to either prevent or, at least, delay the development of pre-eclampsia. The pregnancy can then safely continue, and the baby will have time to develop.

A simple treatment of low doses of aspirin, under the direct care of your doctor, has been shown to be effective³. For such treatments to work, they must be initiated before 16 weeks of pregnancy, hence it is of critical importance to know at an early stage which pregnancies are at risk.

How can it affect me?

Most women with pre-eclampsia are mildly affected, however some women become more seriously ill (eclampsia). Pre-eclampsia involves changes in your blood vessels. As a result:

- **blood pressure rises**
- **protein from the blood leaks into the urine**

Especially during the early stages of the disease, women suffering from pre-eclampsia don't necessarily feel sick however pre-eclampsia can progress very quickly. Most women with pre-eclampsia are admitted to hospital and in many cases their babies will need to be delivered prematurely. Birth is induced or a Caesarian section performed if the health of the mother or child necessitates it. Because the primary cause of pre-eclampsia is the placenta, most women start to recover soon after delivery.

How can it affect my baby?

Some babies remain healthy even when their mothers have severe pre-eclampsia. In these situations medical staff will need to pay close attention to ensure that the baby is able to get enough food/nutrients and oxygen to maintain its growth in the womb. If the baby needs to be born prematurely the consequences will depend on how early the birth is. Pre-eclampsia occurring early in

pregnancy (early-onset pre-eclampsia) is likely to result in earlier prematurity and thus more health problems than the disease presenting late (late-onset pre-eclampsia).

Am I at risk?

Although pre-eclampsia can affect any pregnancy, some pregnancies are more at risk.

You are more at risk if:

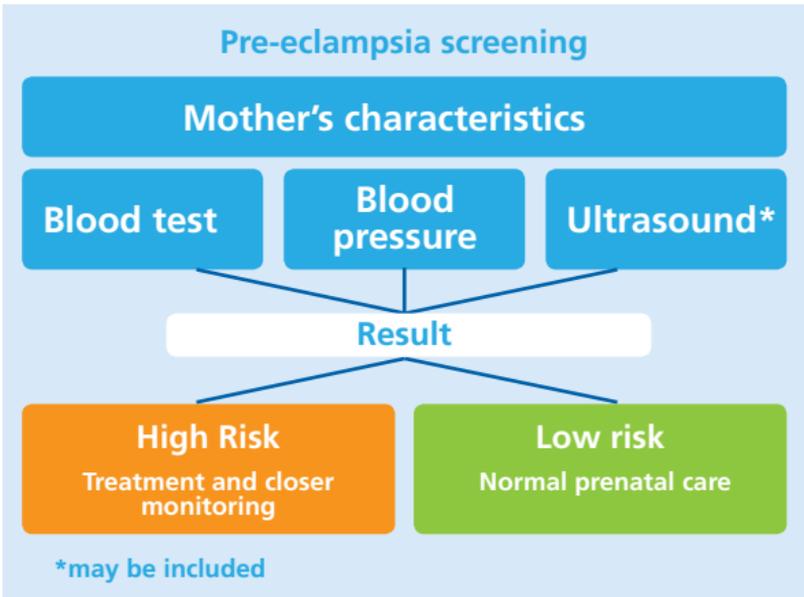
- **This is your first pregnancy, or even your first pregnancy with your present partner**
- **You, your mother or sister had pre-eclampsia**
- **You have a BMI (body mass index) of 35 or more**
- **Your age is 40 or over**
- **You are expecting twins, triplets, or quads**
- **You have a medical problem such as high blood pressure, kidney problems and/or diabetes**
- **Your pregnancy was medically assisted e.g. in vitro fertilization (IVF)**

Why should I have my pre-eclampsia risk properly assessed?

Having risk factors doesn't mean that you will get pre-eclampsia. On the other hand, you may not have any known risk factors but still develop pre-eclampsia. When you have a pre-eclampsia screening, the risk factors are combined with your test results so that in most cases the increased risk of pre-eclampsia can be ruled out, giving you peace of mind during your pregnancy. In the event of a positive screening result your doctor will be able to initiate your treatment at the optimum time and monitor your pregnancy more carefully.

How is pre-eclampsia screening performed?

Pre-eclampsia screening is done in the first trimester when your baby is at least 11 weeks old and less than 14 weeks old. It involves a simple blood test, and measurement of your blood pressure. An ultrasound examination may be included.



Your risk of developing pre-eclampsia is calculated from the results of simple tests. In connection with the tests you will also be interviewed to obtain some basic facts about yourself and your pregnancy history.

References

1. Royal College of Obstetricians and Gynaecologists patient information leaflet, Information for you: Pre-eclampsia. RCOG Patient Information Committee, London, UK, Aug 2012.
2. Roberge et al. (2012) Early administration of low-dose aspirin for the prevention of preterm and term preeclampsia: a systematic review and meta-analysis. *Fetal Diagn Ther.* 2012;31(3):141-6. doi: 10.1159/000336662. Epub 2012 Mar 21.
3. Bujold et al. (2010) Prevention of preeclampsia and intrauterine growth restriction with aspirin started in early pregnancy: a meta-analysis. *Obstet Gynecol.* 2010;116:402-14.

What does the pre-eclampsia screening test tell you?

Low risk:

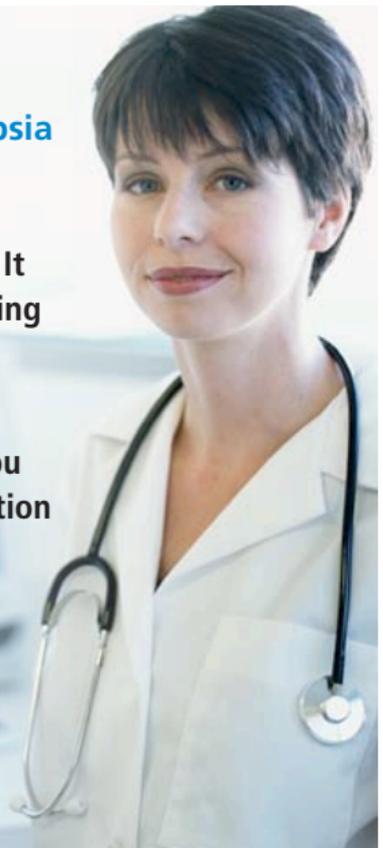
A low risk result means that you are unlikely to develop pre-eclampsia later in your pregnancy. Having a low risk does not completely eliminate the possibility that you will develop pre-eclampsia, and you will continue receiving normal prenatal care.

High risk:

A high risk result does not mean you will definitely develop pre-eclampsia. However, knowledge of a higher than expected risk makes it possible for the doctor to formulate your future pregnancy care in the best possible way. Your doctor may suggest you start taking small doses of aspirin to improve the function of your placenta. The aspirin treatment should always be discussed with your doctor. The result from the screening test helps health care professionals, and you to be alerted to possible signs and symptoms of pre-eclampsia.

Ask your doctor about signs and symptoms of pre-eclampsia

- **Having a high risk of pre-eclampsia is not your fault. It doesn't arise from your eating habits, or from physical or emotional stress.**
- **With good prenatal care, you can be alerted to the condition early and keep it under control.**



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