Information for pregnant women

Prenatal care

gynkrup

A series of tests are necessary during pregnancy to check the proper foetal development.

Clinical and laboratory examinations within prenatal care are divided into regular and irregular ones.

Regular examinations

(They are performed at each prenatal visit):

- history information
- external examination of the pregnant woman and determining the weight and blood pressure
- chemical analysis of urine
- bimanual vaginal examination
- detection of foetal vitality signs

Irregular examinations

(They are performed only in a specified week of pregnancy):

1. Laboratory examination in week 10, before week 14

- determining blood group ABO + RhD
- screening for irregular anti-erythrocyte antibodies
- determining haematocrite, number of red blood cells, white blood cells and platelets and haemoglobin (blood pigment) level
- serological tests of HIV, **HBsAg (antigen indicating hepatitis type B)** and antibodies against syphilis
- fasting blood glucose testing; screening examination for thyroid function can be added

2. Ultrasound examination in week 10, before week 14

A written report must assess:

- number of foetuses, in case of multiple pregnancy also chorionicity and amniocity
- vitality
- biometry with measuring the CRL parameter, which helps to specify the term of birth

3. Ultrasound examination in week 11–13

It is performed in the case of a pre-paid **maternity premium card**, that includes:

1st trimester screening

The test can very precisely exclude genetic defects such as Down syndrome, Edwards and Patau syndromes based on the age of the pregnant woman, PAPP-A, free beta subunit of HCG (biochemistry – performed using a blood sample) and NT, i.e. assessed using ultrasound in association with dating of the pregnancy and verification the number of foetuses. **Positive screening means only that the patient is included into a group of patients with increased risk of a foetus with Down syndrome or Edwards or Patau syndromes, not a disease of the foetus.**

This combination test performed in the first trimester is able to detect 90 % of foetuses with Down syndrome with false positivity of less than 5 %. If the test is positive, genetic counselling with ultrasound examination and possibly another invasive examination are recommended in higher level institutions such as clinics of university hospitals, where biopsy of chorionic villi or amniocentesis (amniotic fluid sampling) are performed.

Pregnancy card includes:

- gender determination, image of the foetus
- doppler ultrasound examination of blood flow in week 28–30
- utrasound examination in week 35 with estimation of foetal weight

Pregnancy PLUS card also includes:

- 3D/4D (spatial photo/video) • foetus display with the
- option of CD recording in week 25–29 of pregnancy

All other items of care provided to Annual card holders – for details visit www.gynkrup.cz.

4. Ultrasound examination in week 16

2nd trimester – triple test

This test determines the risk of Down and Edwards syndromes on the basis of age, AFP, HCG and uE3. If the test includes the whole molecule of hCG, it has detection 60–65% and false positivity 5%. The test is less precise and it takes 1 week to get results.

Genetic counselling and amniocentesis (amniotic fluid sampling) if recommended by the physician are recommended in patients over 35 years.

Amniocentesis is usually completely painless (or with little pain). It could be described as rather unpleasant. The pregnant woman takes 2–3 hours rest after this procedure and then she goes home accompanied.

Amniocentesis can find many things if we search for a particular disease caused by a chromosomal defect, or it can be determined from the biochemical examination of the amniotic fluid. Typically all chromosomal aberrations and for example also neural tube defects that have no chromosomal aberration, can be found.
Unlike ultrasound and blood tests that only indicate a possible defect, amniocentesis has a hundred percent predictive value. Complications associated with amniocentesis include premature rupture of membranes, bleeding or injury to the foetus.

5. Ultrasound examination (week 20–22)

A written report must assess:

- number of foetuses
- vitality
- biometry with measuring the BPD (biparietal diameter),
- HC (head circumference), AC (abdominal circumference) and FL (femur length) parameters
- foetus morphology
- localization of the placenta
- amount of the amniotic fluid

6. Oral glucose tolerance test (week 24.–28.)

Usual diet containing at least 150–200 g of carbohydrates is recommended three days before OGTT. Fasting (8–10 hours) is necessary before the test. Any physical exertion must be avoided as well as smoking. Because the test takes 2.5 hours, it is necessary to come to the collection room in the morning. It is necessary to bring 0.5 litre of unsweetened tea for the test.
Then the pregnant woman undergoes three blood samplings from a vein. A fasting blood sample is drawn **first. Another sampling** sampling takes place one hour after drinking glucose solution (75 g), which may be flavoured with juice of half a lemon that partially moderates the strong sweet taste of the fluid. **The last sampling** follows one more hour later. Only then is it possible to eat and drink normally
Normal values of the test do not exceed 5.1 mmol/l in the fasting sample, 10 mmol/l one hour and 8.5 mmol/l 2 hours after drinking the solution.

7. Prophylaxis of RhD alloimmunization in RhD-negative women (week 27–28)

It should be provided for example by administration of anti-D immunoglobulin to RhD-negative pregnant women.

Short explanation:

Blood sample is drawn and the **blood group including Rh factor** of the mother is found out already at the beginning of the pregnancy. If **Rh is negative (Rh−)**, i.e. there is no antigen, the blood group + factor of the father is assessed too. In case the father is unknown or the pregnant woman is not sure who is the father of the future child, she is considered to have the child with a **Rh positive father (Rh+)**, i.e. his blood contains the antigen. In a **woman** with negative factor **(Rh−)**, where the **father is Rh+, antibodies are** intensively **monitored**, during whole pregnancy, because the child may inherit the positivity from the father. In case of different Rh factor of the

mother and the foetus, the **immune system** of the mother may produce **antibodies**. against the foetus. Potential treatment is carried out for both the mother and the child depending on the degree of disease. **First pregnancy** s in a mother with negative Rh factor and Rh positive foetus (Rh+) proceeds usually **without complications**.
In each pregnancy a small amount of blood of the child goes through the placenta or during the birth to **blood circulation of the mother**. The mother's body protects itself and starts to produce antibodies against blood cells of the child.
In case of **another pregnancy** of an Rh- woman **with Rh positive foetus**, only a small amount of blood of the child reaching the mother's blood circulation causes production of a **large amount of antibodies**. These can penetrate **to the foetal body** where they destroy his/her red blood cells.

8. Laboratory examination (week 27–32)

- determining haematocrite, number of red blood cells, white blood cells and platelets and haemoglobin level (serological tests for HIV, HBsAg and antibodies [in Rh negative] against syphilis are performed only selectively)

9. Ultrasound examination (week 30–32)

A written report must assess:

- number of foetuses
- vitality
- biometry with measuring the BPD (biparietal diameter), HC (head circumference), AC (abdominal circumference) and FL (femur length) parameters
- foetus morphology
- localization of the placenta
- amount of the amniotic fluid

10. Vaginorectal detection of group B Streptococci (vaginal culture sampling, week 35–38)

This examination excludes infection with beta haemolytic Streptococcus, a bacterial infection that is not treated during pregnancy. **Antibiotic (ATB)** therapy is recommended only during childbirth because it is dangerous for the newborn.

A patient is referred to a maternity hospital in week 36.

Registration takes place in week 14 in Prague maternity hospitals. Dental examination and examination by a general practitioner including ECG are recommended during pregnancy.

Gyn Krup Inc.

Praha 1 – Poliklinika Palackého
848 500 849 – 222 928 354 – 602 220 120
palackeho@gynkrup.cz

Praha 10 – Chmelová
848 500 849 – 272 652 201 – 602 220 120
chmelova@gynkrup.cz

Praha 9 – Mladoboleslavská
848 500 849 – 234 129 789 – 602 220 120
vinor@gynkrup.cz

www.gynkrup.cz