C.E.D.E.F

First trimester scan information

This document is aimed to assist you in making the best choice for you and your baby. You will find, here below, the reasons why ultrasound and screening for Down syndrome is available to you during your pregnancy, the information that your doctor can extract from the tests, their benefits and disadvantages. Please, also note, that ultrasound examination is available to all pregnant women, on a voluntary basis. The scans are partially reimbursed by the French social security.

What is a scan?

It consists of an ultrasound investigation of your body, which, based on today's knowledge, does not cause negative effects nor damages to your unborn child. This also applies to multiple scans.

How is the examination carried out?

It is better to have an empty bladder. To conduct the examination, a hand held device is moved across the tummy. The device is covered with a lubricating gel beforehand to make it slide more easily and to facilitate the transmission of the acoustic waves. In special circumstances, it is necessary to introduce a probe into the vagina to get closer to the foetal structures. This process is neither dangerous nor painful. For this particular investigation method, a sterile "single use" cover protects the probe. The cover is usually made of Latex. **So if you happen to be allergic to Latex, you must notify the medical assistant as well as your physician.** Some incidents or accidents may occur and alternative materials can and will be used. Several body positions can be selected to conduct the exam (lying on the side or on the back with closed fists under your cheek…. a cushion may also be used for your comfort).

These investigations require a lot of concentration and attention from the doctor or midwife, so it is very important to maintain a quiet environment while conducting them. We therefore strongly recommend that you undertake the scan either alone or with only one other adult. Small children or too many people could divert and disturb your doctor and affect the quality of the exam.

After completion of the scan you will have the opportunity to ask all the questions you wish and you will be provided with a detailed summary of the findings together with the relevant pictures. To ensure proper communication, another copy of the complete scan report will be given to you for your doctor.

When?
The best time for the first trimester scans is between 11 and 13 weeks+ 6 days (weeks are weeks after the first day of your last period).

What is its purpose?

There are 5 main reasons to do a first trimester scan:

- **To assess the vitality of the foetus** (heart beats and active movements)
- **To date the start of your pregnancy** (within +/- 5 days) by measuring your baby from the top of its head to the bottom of its spine, the Crown Rump Length (CRL). In France, the delivery date is fixed at 9 months after beginning of the pregnancy (i.e. 41 weeks and 3 days), or 40 weeks in Anglo-Saxon countries with a possible extension by 10 days, which comes out to be the same.
- **To screen for multiple pregnancies**
- **To analyse the foetus aspect and his internal organs.** Many malformations are already detectable and the continuous enhancement of the equipment increases the effectiveness of the scanning process. All medical checks, even conducted with high competency, have their limits, especially under unusual conditions such as: an abdominal wall that is too thick, the foetus in a difficult position or an inappropriate timing of the scan leading to an inaccurate interpretation of the measurements. Some malformations will just not be seen. If an anomaly is suspected, you will be offered additional scans to confirm or not the initial observation. In some cases, the anomaly will not be confirmed or will be minor and could disappear over time (weeks). Where the diagnosis is confirmed, the medical team will provide you with all the necessary explanations and define the best next steps.

- **To screen for chromosomal anomalies, particularly trisomy 21 (Down's syndrome)**

SCREENING:

If the size of the foetus confirms the date of the pregnancy to be in the 11 wks – 13 wks + 6 days period and if the **nucal translucency (NT)** is measurable, a screening test for Down's syndrome (trisomy 21) can be suggested. This test is on a voluntary basis. If you agree to carry this test, you will be asked to give your written consent. `

This screening test **(combined test)** is based on mother's age, NT and a maternal blood test immediately after your scan **(first trimester markers**). It is possible to have the blood sampled in our centre during the week from 8 to 10 am. If your ultrasound appointment is later during the day or on Saturdays, you can go to the laboratory near by the centre (about 8 minutes walk). We will have a result within 24-48 hours and we can call you or send you an e-mail.

The risk to have a fœtus with Down's syndrome is expressed by a probability ratio:
Your risk is low if the ratio is less than 1 out of 250 (for example 1 out of 1000…). Then usual ultrasound screening is accepted as sufficient for your baby.
Your risk is high if the ratio is more than 1 out of 250 (for example 1 out of 100), We will then propose you invasive testing (see DIAGNOSIS)

The French authorities recommend since June 2009 to undergo this **combined test**. If, for technical or personal reasons the blood test is not performed, we can propose you to calculate the risk only base on maternal age and NT immediately after your scan.
You may choose to do a blood test later in your pregnancy (**second trimester markers**, between 14 and 18 weeks). We can then offer you the to calculate the global risk based on age, NT and this late blood test. This testing is called**: sequential test.**

In only 2% of the cases, the measure of the nucal translucency is not possible and neither the combined test nor the sequential test can be conducted. In this case, we will offer you the **second trimester markers only.**

Not all foetuses with Down's syndrome have a high risk at screening. About 20% of them have a low risk and cannot be detected in the early stage. In this group, about half of these foetuses are detected by ultrasound later in pregnancy. But there are some foetuses with Down's syndrome that cannot be detected prenatally despite use of all modern medical techniques.

DIAGNOSIS:

If the risk is high, we cannot reassure you with ultrasound only, so we will advise you to undergo a diagnosis by invasive testing. The only way to conduct a prenatal diagnosis of a chromosomal anomaly consists of sampling foetal cells either in the placenta or in the amniotic fluid. These interventions carry a 1% risk of a pregnancy loss.
In these high-risk situations, a difficult decision might have to be taken. Your doctor will give you the explanations and answer your questions. You may want to seek psychological council. Please feel free to discuss this option with your doctor.

The result will confirm if your foetus has Down's syndrome or not**. In most cases the result is normal.**

If you need additional information on the scanning methods or any other topics described in the above, please do not hesitate to contact us.