The 11–14 week scan

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Introduction

The 11–14 week scan is a crucial part of pregnancy care. It helps healthcare providers assess the health of the fetus and ensure that the pregnancy is proceeding normally.

Purpose of the Scan

The primary purpose of the 11–14 week scan is to confirm the gestational age and visualize the fetus for the first time. This helps in identifying any potential issues that may arise during pregnancy.

Benefits of the Scan

- Confirms the gestational age
- Visualizes the fetus
- Identifies potential issues

Risks of the Scan

- The scan involves exposing the mother to a small dose of radiation.
- There are minimal risks associated with the scan, but they are important to discuss with the healthcare provider.

Procedure of the Scan

- The mother will be positioned in a comfortable manner on the scan table.
- Booking an appointment for the scan
- The scan technician will position the transducer on the mother’s abdomen.
- The scan technician will guide you through the procedure.

Aftercare

- No specific aftercare is required.
- The scan results will be discussed with the healthcare provider.

Resources

- Information on the website
- Educational materials provided by healthcare providers

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235 Euston Road (entrance is on Grafton Way)
London NW1 2BU

Maternity Department Telephone: 0203 447 9400 Hospital Switchboard: 0203 456 7890

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Welcome to the Integrated Antenatal Service

We aim to see you as close to your appointment time as possible. We apologise if you have to wait at very busy times. Within the department you will find patient satisfaction questionnaires; please help us to improve our service by completing one.

All scans are carried out by appropriately trained doctors and sonographers. Please feel free to ask any questions and discuss any concerns you may have regarding the scan.

In our unit we are looking for new ways, through research, to improve the care of pregnant women and their babies. All of our research projects have been formally reviewed by an ethics committee. It is up to you to decide whether or not to take part. If you do decide to take part, you will be given a separate information sheet to keep and asked to sign a consent form. If you decide to take part, you are free to withdraw at any time and without giving a reason. If you do not feel able to take part, it will not in any way affect the care you or your family receives.

We hope that your visit to our unit meets your expectations.

The 11–14 week scan

All women booked at UCH will be offered a scan between 11 and 14 weeks of pregnancy. The scan is performed by putting some gel on your tummy and moving a transducer over your abdomen. In addition, you will be offered a trans-vaginal scan. This is because the baby is still very small at this stage and using a trans-vaginal approach gives clearer views of the baby’s anatomy. This may increase the chance of detecting major fetal abnormalities at this early gestation. A trans-vaginal approach also allows accurate measurement of the cervix (neck of the womb) to predict the risk of premature birth. The scan is simple to perform and involves inserting a specially designed transducer into the vagina. It is not painful and does not harm the baby or cause a miscarriage.

It is not necessary to have a full bladder for a transvaginal scans.

The aims of the scan are:

1. To date the pregnancy
   This is particularly relevant for women who cannot recall the date of their last period, have an irregular cycle, or who have conceived while breastfeeding or soon after stopping the pill. By measuring the crown-rump length (CRL) of the baby, the gestational age and therefore the expected date of delivery can be calculated.

2. To diagnose multiple pregnancy
   Approximately 2% of natural conceptions and 10% of assisted conceptions result in multiple pregnancy. All twin pregnancies will be followed up in a specialist multiple birth clinic.

3. To diagnose early pregnancy loss
   Unfortunately, in around 3% of women who attend for an 11-14 week scan it is found that the baby has died. Couples will receive counselling as to why this may have happened and information about subsequent care. In many cases it is not possible to give a definite reason why the pregnancy did not progress.

4. To diagnose major fetal abnormalities
   In around 1% of pregnancies, the baby has a major abnormality that may be visible at the 11-14 week scan.
Sadly, these abnormalities can mean that the baby will not survive after birth or may have serious disabilities. In some cases the abnormality may be corrected by surgery before or after birth. If an abnormality is detected, you will be given an opportunity to see our specialist team in the fetal medicine unit who can discuss the findings with you in more detail.

5. To assess the chance of Down’s syndrome and other chromosomal abnormalities

All women, irrespective of their age, have a chance of having a baby with a chromosomal abnormality such as Down’s syndrome, Edward’s Syndrome or Patau’s Syndrome. The National Screening Committee recommend that the Combined Test (nuchal scan and blood test) should be used to screen for Down’s Syndrome; however, extensive research has demonstrated that the test offered at UCH is superior. If you choose to have screening for chromosomal abnormalities we will calculate the chance of your baby being affected by taking into account:

- your age (or, in the case of IVF using donor eggs, the age of the egg), and
- a very detailed scan which looks at many features of the baby, including:
  a) the amount of fluid at the back of the neck (nuchal translucency)
  b) the presence or absence of the nasal bone
  c) the flow of blood through the heart and the liver
  d) the fetal heart rate, and
- the measurement of two hormones in your blood (PAPP-A and β-hCG).

The only way to know for sure whether or not the baby has a chromosomal abnormality is by having a diagnostic invasive test such as chorionic villus sampling (CVS) or amniocentesis. These tests involve inserting a needle into the placenta (CVS) or amniotic sac (amniocentesis) under ultrasound guidance and therefore carry a small risk of miscarriage.

After the scan, your individual chance of having a baby with a chromosome abnormality will be discussed with you.

You will then be supported in deciding whether or not you wish to have a diagnostic invasive test. For an information leaflet on CVS or amniocentesis please ask a member of staff or visit www.uclh.nhs.uk.

Whatever you decide about CVS or amniocentesis, we will offer you a detailed scan at around 22 weeks to check for structural abnormalities in your baby that may not be diagnosed by ultrasound earlier in pregnancy.

6. To assess the chance of premature birth

Approximately 1% of women will go into labour before 34 weeks’ gestation. Many of these babies will do well but some could die or go on to have lifelong health problems. Our aim is to estimate if you are at high risk of premature birth by taking into account:

- your medical history and any previous pregnancy complications
- ultrasound measurement of the length of your cervix.

If your risk of premature birth is high we will arrange regular follow-up in a specialist clinic to offer treatment options which may reduce the chance of premature birth.

We will assess your chance of developing pre-eclampsia by taking into account:

- your medical and family history
- measurement of your blood pressure
- measurement of blood flow in the vessels that supply blood to the uterus and the placenta, using ultrasound
- the level of PAPP-A (a hormone produced by the placenta) in your blood (this is the same hormone measured as part of your Down’s syndrome screening test).

If your risk of developing pre-eclampsia is 5% or greater we will follow you up in a specialist clinic. You can expect to have regular appointments where we
will measure your blood pressure and perform ultrasound scans to assess the growth and wellbeing of the baby.

What will happen during the scan?

- Your blood pressure will be taken
- Your BMI will be calculated using your height and weight measurements
- A blood sample will be taken
- You will be asked about any previous pregnancies and your medical and family history
- An abdominal and transvaginal scan will be offered to:
  - Look for major defects
  - Assess the risk of Down’s syndrome
  - Measure the length of the cervix
  - Measure blood flow to the placenta

What happens next?
If you are found to be at an increased risk you will be referred to a specialist clinic as detailed below

<table>
<thead>
<tr>
<th>Condition</th>
<th>Specialist clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major fetal defect</td>
<td>Fetal Medicine Unit</td>
</tr>
<tr>
<td>Down’s syndrome</td>
<td>Fetal Medicine Unit</td>
</tr>
<tr>
<td>Preterm birth</td>
<td>Preterm birth clinic</td>
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<tr>
<td>Pre-eclampsia</td>
<td>Hypertension clinic</td>
</tr>
<tr>
<td>Multiple birth</td>
<td>Multiple birth clinic</td>
</tr>
<tr>
<td>Raised BMI</td>
<td>Maternal nutrition clinic</td>
</tr>
</tbody>
</table>

If your risk is low for all of the above conditions you will be referred back to your midwife or doctor for routine antenatal care.

It is your choice whether to have any screening test for chromosome or structural abnormalities. Some women decide not to have these tests. Please make sure you make your wishes clear to your midwife or doctor.

Useful contacts

Contact a Family
www.cafamily.org.uk

Antenatal Results and Choices
www.arc-uk.org

Down's Syndrome Association
www.downs-syndrome.org.uk

If you require further information please contact:

Alison Fiddler
Antenatal screening midwife
0203 456 7890 ext: 76152
alison.fiddler@uclh.nhs.uk

Fetal medicine unit midwife
0203 447 9872
Fmumidwife@uclh.nhs.uk

Twin to Twin transfusion
www.twin2twin.org

Stillbirth and Neonatal Death Society
www.uk-sands.org

Turners Syndrome Society (England)
www.tss.org.uk

Multiple Births Foundation
www.multiplebirths.org.uk

Miscarriage Association
www.miscarriageassociation.org.uk

SOFT.uk
www.soft.org.uk

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