SCREENING TESTS IN PREGNANCY

INFORMATION FOR PREGNANT WOMEN HAVING THEIR BABY IN SWINDON

If you would like this information in another format, i.e. large print or another language, please contact the Patient Advice and Liaison Service (PALS) department on 01793 604031

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Your First Trimester screening choices
Please consider your screening options and complete the form below, you MUST bring this form with you for your 1\textsuperscript{st} scan, without it your scan CANNOT be carried out.

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Unit number: 

Date of Birth: 

<table>
<thead>
<tr>
<th>Routine screening tests</th>
<th>Yes I would like to have this test</th>
<th>No I do not want this test</th>
<th>I don’t Know I would like more information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultrasound</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Down’s syndrome Screening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full blood count</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Blood group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sickle cell and Thalassaemia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rubella</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syphilis</td>
<td></td>
<td></td>
<td></td>
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<td>HIV</td>
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<tr>
<td>Urine Culture</td>
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Signed _____________________ Date __________________

Signed by midwife all above discussed__________________
Date ______________________
Antenatal Screening Tests

Your first meeting with your midwife will take up to an hour. Your midwife will ask you about your health and discuss the care available during your pregnancy. You can also ask any questions that you may have.

Your midwife will talk to you about the screening tests you will be offered during your pregnancy. This booklet gives you information about these tests, which are recommended by the National Screening Committee (www.screening.nhs.co.uk) for all pregnant women but are only carried out with your consent, following discussion with your midwife.

Listed below is an outline of the screening tests offered, however you may wish to access the above website for more detailed information.

Routine Blood Tests before 10 weeks of pregnancy, It is important to have these tests carried out as early as possible in your pregnancy.

Blood Group and Rhesus factor – In the rare event that a blood transfusion is required, the blood selected must be the correct blood group. The four main blood groups are A, B, O and AB.

There is also another blood group called D (also called rhesus). Women maybe D Positive (rhesus positive) or D negative (rhesus negative). Women who are rhesus negative can form antibodies if bloods cells with a different blood group enter the blood stream. This may happen during pregnancy if a few of the babies’ blood cells ‘leak’ into the mother’s blood (usually when the baby is born but occasionally in pregnancy).

If the baby’s blood group is different from the mother’s the immune system may produce antibodies. This is rare; approximately 3 in 100 pregnant women produce antibodies, most commonly Anti D. Rhesus negative women can avoid making this antibody by receiving injections of a ‘ready made antibody. This harmless antibody removes the surplus babies’ red cells in the mother’s blood before the body makes harmful anti D to fight them.
**Full Blood Count** – An important part of this test is to establish the level of haemoglobin in your blood. Iron is required to produce haemoglobin to carry oxygen around the body in the red blood cells. If haemoglobin is low, this is known as anaemia, which may cause dizziness and tiredness. Iron tablets maybe required to supplement an iron rich diet (www.eatwell.gov.uk)

**Rubella (German measles)** – Rubella is a common childhood illness that spreads from one person to another. However infection with rubella in the first 12 weeks of pregnancy can cause serious damage to your baby’s brain, heart, sight and hearing.

Women who have had rubella in the past or who have had a rubella vaccination, are likely to be immune (that is, protected against having it again), the blood test will check this.

About 5% of people who have been vaccinated are not immune; in this case a rubella vaccination after delivery is offered.

If during your pregnancy, you get a rash or come into contact with someone with a rash please tell your midwife or Doctor.

**Syphilis** – This is a rare but serious bacterial infection which can be caught through unprotected sexual activity with an infected person. Initial symptoms maybe mild but if left untreated it can cause serious problems in later life, including brain damage and heart problems. An infected mother can also pass the virus on to her unborn child during pregnancy causing possible eye, liver and nervous system problems. Syphilis is treatable with antibiotics. A positive syphilis screening result in pregnancy necessitates referral to the Sexual health department for treatment when required and advice and follow up.
Hepatitis B – This is a virus that infects the liver. It can be caught through any unprotected sexual activity with an infected person, contact with bodily fluids of an infected person and with infected needles/injecting equipment.

Most adults with acute Hepatitis B make a full recovery, but a small number become ‘carriers’. People who carry the virus may develop serious liver disease in later life, therefore women detected as being carriers in pregnancy will be referred to specialists in liver disease for follow up.

A pregnant woman who carries the Hepatitis B virus may pass the infection onto her baby. Immunisation of babies born to mothers who carry the Hepatitis B virus gives the baby more than 95% protection.

If you have a particular reason for concern, you can also ask to be tested for hepatitis C which can be contracted from infected blood transfusions prior to 1992 blood screening, injection of drugs, tattooing or body piercing.

HIV (Human immunodeficiency virus) – HIV is a virus which can cause progressive damage to the immune system.

The virus can be caught through any unprotected sexual activity with an infected person, contact with infected needles/injecting equipment and via blood transfusions or blood products, (these are tested in the UK but not in all countries).

A person infected with HIV can look and feel well for many years.

HIV can be passed from an infected mother to her baby during pregnancy, delivery or breast feeding. Specialist medical care and treatment are available to women with a positive HIV test in pregnancy. Recent developments and improvements in treatment have greatly improved the outlook for women who carry the HIV virus and their babies.
Sickle Cell and Thalassaemia – Some women and their partners will be offered screening to test for sickle cell and Thalassaemia. These conditions known as ‘Haemoglobinopathies’ are common inherited conditions, mainly affecting people who have originated from Africa, the Caribbean, the Middle East, Asia and the Mediterranean, but are also found in the northern European population. Please see the separate leaflet, ‘Screening for you and your baby’, available from your midwife or www.sct.screening.nhs.uk/

Urine tests
A urine test will be taken to check if there are any bacteria present that could later develop into a urinary tract infection. Undetected urinary tract infections can lead to premature labour. If any bacteria are found a course of antibiotics may be offered.

We Do Not Routinely Test For:
Sexual transmitted diseases for example, gonorrhoea. All women under the age of 25 will be offered a testing kit for Chlamydia.

We do not routinely test for thrush but if you think you may have this please contact your GP or midwife who will arrange treatment. If you are worried about any of these you can discuss this with your midwife or GP. Alternatively you can contact the Health Advisor in the Sexual Health Clinic.

Some women may have a swab taken in pregnancy; this may show Group B Streptococcus (GBS)- this is a normal bacterium. Roughly a quarter of women of childbearing age carry GBS in the vagina. A positive swab result for GBS means a woman is colonised with GBS at the time the swab was taken - not that she or her baby will become ill. Your midwife or doctor will explain this to you. If you have any concerns about GBS please ask your midwife.

Alcohol, Drug or Nicotine – These maybe harmful to mother and baby. We strongly advise you to discuss any drug use, alcohol intake or smoking with your midwife or GP.

Alternatively Specialist advice and support is available on the contact numbers at the back of this leaflet.
Ultrasound Scans in Pregnancy

An ultrasound scan uses sound waves to create images of the baby on a screen. It is a safe and simple way to examine the developing baby.

Early Dating Scan – This scan will be offered at about 12 weeks to confirm an ongoing pregnancy and to confirm the expected date of delivery. Your GP or midwife will arrange this scan.

The scan will also detect if a woman is expecting more than one baby and may detect some abnormalities, but this is not the main reason for the scan.

A dating scan will not be required for women who opt to have the combined test (see below) because this test will also date the pregnancy.

Anomaly Scan (18+0–20+6) following the dating scan or combined test, a scan will be offered at 18 – 20+6 weeks. During this scan the baby is carefully examined to check that as far as can be seen, the baby is developing normally. Please refer to the ‘antenatal ultrasound leaflet’ that will be sent to you with your anomaly scan appointment for further information.

Your scan appointment will take up to 14 days from when it has been requested by your health professional. If you have not received it after this time please contact your community midwife or the scan department.
Screening for Down’s syndrome in Pregnancy

All pregnant women, no matter what their age, are given the opportunity to have their pregnancy screened for Down's syndrome.

**What is Down’s syndrome?**

One in every 600 babies is born with Down's syndrome.

Down's syndrome is a lifelong condition. People with Down's syndrome all have some degree of learning disability, and an increased risk of some health problems. However, everyone with Down's syndrome is different, and Down’s syndrome is only a part of who they are. It is impossible to predict in pregnancy what any individual child's abilities and needs will be.

Down's syndrome is not anybody's fault. There is nothing that can be done before or during pregnancy to prevent Down's syndrome. In most cases it does not run in families - anyone can have a baby with Down's syndrome.

Babies with Down's syndrome have extra genetic material in their cells. They usually have an extra chromosome (the package that carries our genes) in each cell, and this can affect all parts of the body.

Antenatal screening cannot diagnose conditions such as Down's syndrome. However, what it does show is how likely it is that your baby has the syndrome. If the risk of Down's syndrome is shown to be high, further testing can then be arranged to diagnose whether your baby has the condition.
Screening

Choosing whether to have a screening test for Down’s syndrome is an important decision for you and your partner. Please read the booklet ‘Screening tests for you and your baby’ sent to you with your hand held notes before making a decision. This booklet gives you information about Down’s syndrome and explains the screening and diagnostic tests available. There will also be plenty of time to discuss this with your midwife at your booking visit.

The diagrams below may help to clarify the purpose of screening and help you decide if it is right for you.

It is not always easy to understand screening. Think of it as putting a population into a “sieve”, to identify those who require further assessment.
The Combined test-

Antenatal screening for Down’s syndrome in the 1st trimester is carried out through a blood test and an ultrasound scan. This is known as a 'combined test', which has a 90% detection rate.

The blood test  We begin by offering all women a test that carries no risk of miscarriage. The blood test in the first trimester can be taken between 10 and 14 weeks and will usually be taken in the ‘One stop’ clinic after the Nuchal scan. A sample of maternal blood will be taken and tested to check the levels of certain proteins and hormones. This is also called Biochemical Serum Screening. If the mother’s blood contains abnormal levels of these substances, this may increase her risk of having a baby with Down’s syndrome.

During the first trimester of pregnancy, the hormones that are looked at are: free Beta-HcG and placenta associated plasma protein A (PAPP-A). The levels of these proteins and hormones, together with the Nuchal Translucency measurement obtained from the ultrasound scan, are then used to calculate the risk of the baby having Down’s syndrome.

The Nuchal scan

If you accept the offer of the screening test, your midwife / doctor will book you a scan appointment between 11+5 weeks and 13+6 weeks. It will take place at the Great Western hospital ultrasound department. The person performing the scan is called a sonographer or radiographer. For this scan, it may be necessary for you to have a full bladder, as this makes the ultrasound image clearer. The scan usually takes around 15-20 minutes. If the baby is not lying in a suitable position or you are too early for Nuchal measurement you will be offered a further attempt, if the scan is still not possible you will be offered the quad test (see below)

The purpose of the Nuchal scan is:

- to find out how many weeks pregnant you are
- to check whether you are expecting more than one baby
- to measure the size of the fluid area at the back of the fetus’s neck (this area is called the Nuchal translucency or NT)
- to check that the baby is growing in the right place
- to check your baby's development
Some abnormalities may also be detected at this scan, such as neural tube defects (spina bifida is a type of neural tube defect.)

**Nuchal Translucency**

A Nuchal translucency scan will help to assess whether the baby has a high or low risk of having Down's syndrome.

This type of ultrasound works in the same way as a normal ultrasound scan, but it focuses on measuring the space between the spine and the nape of the baby’s neck.

All babies tend to collect fluid behind the neck. However, babies with Down's syndrome normally have more fluid in the neck than is normal. By measuring the thickness of fluid, the specialist can help to determine how likely it is that you could have a baby with Down’s syndrome.

**How do I get the results?**

Following the scan and blood test the sample will be sent to our laboratory and analysed with the scan information.

**Low Risk** results are sent by post to your home address within 14 days of having the sample taken. If you have not received your results by this time please contact the Antenatal Screening Midwife (see contact numbers at the back of this leaflet).

**Increased Risk** results will be telephoned to you directly by the Antenatal Screening Midwife and you will be offered an appointment to discuss the results and consider the options available to you.
Booking for pregnancy care after 13+6

If you are after than 13+6 weeks into your pregnancy and are too late for the combined test we can still offer you screening for Down’s syndrome in your pregnancy.

The Quad Test (2\textsuperscript{nd} trimester screening)— This is a voluntary blood test to estimate your chance of having a baby with Down’s syndrome and is offered to all women having their babies within this Trust. (With the exception of multiple pregnancies, see below) The test measures four substances in your blood:

- AFP – Alpha-fetoprotein
- UE3 – Unconjugated oestriol
- \textit{HCG} – \textit{Human Chorionic Gonadotrophin}
- Inhibin A

These four results are taken into consideration with the mothers’ age, weight, Ethnicity and smoking status to estimate the chance of having a baby with Down’s syndrome.

When is the test performed? – The blood test should be taken between 15 and 16 weeks of pregnancy by your scan data for most accurate results, however it can be taken up to 20 weeks of pregnancy but this is not ideal. Your Midwife will discuss with you when and where to have the blood test taken.

Can the Quad test detect any other abnormalities? – Yes, the test will also identify women with a higher chance of having a baby with a Neural Tube defect such as Spina Bifida. These conditions affect the spine and cause varying degrees of paralysis of the legs. A high level of AFP may indicate a higher chance of Spina Bifida. If the level is high you will be telephoned and offered an earlier detailed scan.
Summary of Quad Test Risks and Benefits

Risks
- The test is a screening test and not a diagnostic test, so it will not give a definite result.
- Approximately 20-25% of affected pregnancies will not be detected by this test.
- Some women (approximately 4%) will be given an increased risk result in an unaffected pregnancy. This may lead to an invasive diagnostic test such as an amniocentesis, which carries a risk of miscarriage of 0.5 to 1%.

Benefits
- Approximately 75-80% of pregnancies affected by Down’s syndrome will be detected by this test.
- Approximately 85% of pregnancies affected with Spina Bifida will be detected by this test.
- The test itself does not carry any risks to the mother or fetus.

Screening for Down’s syndrome in Multiple Pregnancies

The quad test is not as suitable for multiple pregnancies. It is recommended that you have the combined test unless you are too late in pregnancy to do so.

You are strongly advised not to have 2 separate screening tests for Down’s syndrome as the results could be conflicting and can’t be correlated to give an overall risk.

When do I get the results?
Low Risk results are sent by post to your home address within 14 days of having the sample taken. If you have not received your results by this time please contact the Antenatal Screening Midwife (see contact numbers at the back of this leaflet).

Low risk does not mean that there is no risk that the baby has Down’s syndrome just that it is unlikely.

Increased Risk results will be telephoned to you directly by the Antenatal Screening Midwife and you will be offered an appointment to discuss the results and consider the options available to you.
What is an increased risk result?

If your screening risk is above the Trust’s cut-off figure we will offer you further tests. If the screening test shows the risk of your baby having Down’s syndrome is lower than the cut-off figure, we will not offer you further tests. Most screening test results fall into this category. This is known as having a low risk result. It is important to understand that a low risk result means exactly that. It does not mean that there is no risk at all that your baby has Down’s syndrome, just that it is unlikely. There is still a small risk because some babies with Down’s syndrome (about a fifth) are not detected by screening tests.

What happens next if I have a increased risk result?

If the result of the screening test shows the chance of your baby having Down’s syndrome is greater than the Trust’s cut-off figure, we will offer you a diagnostic test. Overall about one in 33 (3%) women screened have a higher risk result and are offered a diagnostic test.

You can decide not to have a diagnostic test.
This carries no risk to your pregnancy but leaves some uncertainty until after your baby is born.

You can decide to have a diagnostic test.
This will give you a definite result but carries a small risk of miscarriage.

You need to think carefully about what you would do if you found yourself in this position. If you would not be happy with either of the above options, you need to carefully consider whether it would be better for you not to have the screening tests in the first place. These screening tests may occasionally suggest an increased risk for a condition other than Down’s syndrome.
Diagnostic tests for Down’s syndrome
There are two diagnostic tests for Down’s syndrome:
1. **Chorionic villus sampling (CVS)** and
2. **Amniocentesis**
For further information, please request individual leaflets.

CVS is performed in one of our tertiary referral units Oxford or Bristol

Amniocentesis is performed in Swindon.

**Are these procedures safe?**
These procedures are not completely safe, and this is why we don’t offer them to everybody. For every 100 to 200 women who have amniocentesis, one will miscarry. And for every 100 to 200 women who have CVS, one or two will miscarry.

**What are the possible results from diagnostic tests?**

**Your baby does not have Down’s syndrome**
This is the most common result.

**Your baby does not have Down’s syndrome, but the tests have shown some other chromosome problem**
Sometimes chromosome variations can be serious and others will have a minor or no effect on your baby. If the test shows there is a problem, you will be offered a referral to a genetic counsellor for specialist information.

**Your baby has Down’s syndrome**
A very small number of women will get this result. It is not possible to tell how affected your baby will be.

**What happens if my baby has Down’s syndrome?**
There are then three options; it is entirely the parents’ decision which one they choose. Some parents will decide to continue with the pregnancy, make plans and prepare for any extra challenges they might face bringing up a child with Down’s syndrome. Some parents may feel that they are unable to bring up their child themselves and may want to consider adoption as an option. Other parents decide they do not want to continue with the pregnancy and will choose to have a termination.
You will have the opportunity to discuss your results with healthcare professionals. You will have time to decide what you are going to do and will be supported by your GP and midwife in your decision.

Useful Telephone Numbers

**Community Midwives Office** – 09.00 – 09.45 daily.
Tel: 01793 604813 –18 (six lines).

**Community Bleep holder** -08.30-16.30 Weekdays Via switch board Tel: 604020 bleep number 1583

**Antenatal Clinic** – 08.00 – 17.00 Weekdays
Tel: 01793 604071

**Maternity Bleep Holder** – 24 hour service Tel: 01793 604020 bleep number 1465

**Antenatal Screening Midwife** – 09.00 – 16.00 Weekdays
Tel: 01793 607311

**Specialist Midwife HIV/Substance Misuse** – 09.00 to 16.00
Tel: 01793 604850 Weekdays

**Smoking in Pregnancy Adviser** – Weekdays
Tel: 07768474106

**Swindon and Wiltshire Alcohol and Drug Service (SWADS)**
Tel: 01793 695405

**Sexual Health Clinic** – Weekdays
Tel: 01793 604038

Useful Websites

The national screening committee website for information on all antenatal screening tests

[www.screening.nhs.uk](http://www.screening.nhs.uk)

**Women’s experiences of antenatal screening**

[www.dipex.org/antenatalscreening](http://www.dipex.org/antenatalscreening)

More Information on Screening in Pregnancy

[www.infochoice.org](http://www.infochoice.org)

**Antenatal Results and Choices**

[www.arc-uk.org](http://www.arc-uk.org)

Contact a Family

[www.cafamily.org.uk](http://www.cafamily.org.uk)

Down’s syndrome Association

[www.swindondownsgroup.org.uk](http://www.swindondownsgroup.org.uk)
[www.downs-syndrome.org.uk](http://www.downs-syndrome.org.uk)