

Information on Routine Antenatal Screening Tests

This booklet explains the routine screening tests you will be offered at your antenatal visits and their significance in monitoring you and your baby's health.

Ultrasound Scans

All mothers are offered an ultrasound scan at their first hospital visit. The purpose of the scan is to confirm the size of your baby and check how many are present.

A second more detailed scan is available to you when you are between 18 and 20 weeks pregnant, to examine the structural development of your baby. You will be given more information about this scan at your hospital booking visit.

Blood Pressure and Urine Checks

Your blood pressure will be checked and your urine tested for protein at all your antenatal visits. Changes in blood pressure and urine can be signs that you are developing problems such as pre-eclampsia of pregnancy, so regular attendance for antenatal care is important.

Blood Tests

Blood is typed into four groups; A, B, O or AB and it is important to know which blood group you are.

Rhesus Factor is the name given to a special protein attached to the red cells in the blood, about 85% of the population is Rhesus Positive and 15% Rhesus Negative.

A mother's blood group and Rhesus Factor may differ from that of her baby. This is normal and usually does not present any problems.

If your blood group is Rhesus Negative you will be offered an injection of Anti-D when you are 28 and 34 weeks pregnant (you will be notified if you require these injections following your booking visit). Also, if you are Rhesus Negative you will need an Anti-D injection following the birth of your baby to prevent problems in future pregnancies.

Full Blood Count

One of the reasons for this test is to establish the level of haemoglobin in your blood. Haemoglobin is necessary to transport oxygen around your body. If your haemoglobin level is low you will be anaemic and may feel tired and less able to cope. Anaemia is caused by insufficient iron in your blood, so you will be prescribed iron tablets and given advice on iron rich foods.

This test also checks the level of other specific blood components and if any of these are found to be impaired you will be contacted and offered further investigations and treatment if required.

Rubella (German Measles)

This test is to ensure that you are immune to rubella and therefore you and your baby are safe from this illness. Rubella can cause severe problems for the baby if contracted in the early part of pregnancy. If you are found not to have this immunity in your blood, we recommend that you are immunised after the birth of your baby.

Syphilis

This test is offered routinely at your booking visit. If results are found to be positive, the disease is treated with antibiotics to prevent problems for your baby.

Hepatitis B

The Department of Health recommends that all women are offered antenatal screening for Hepatitis B and all babies born to infected mothers receive a complete immunisation course starting at birth. Hepatitis B is a virus, which infects liver cells and can cause inflammation of the liver. It is carried in blood and body fluids; saliva, urine, sperm, sweat, sputum and even tears.

What are the signs and symptoms of Hepatitis B?

- There may be no signs of illness at all.
- Symptoms can be vague and may include tiredness, nausea, loss of appetite.
- Progression of the illness may lead to some tenderness over the stomach/abdomen and jaundice.
- Recovery from Hepatitis B can take up to six months. However, a small but significant number of these people become carriers who later develop liver disease including cirrhosis or liver cancer.

How can Hepatitis B be contracted?

Hepatitis B infection is spread by direct contact with an infected person's blood or body fluids.

The main ways by which it is spread are:

- From an infected mother to her baby at birth.
- By sexual intercourse with an infected person without using a condom.
- By sharing contaminated needles or other equipment for drug injecting.
- By tattooing, ear and body piercing or acupuncture with unsterilised needles or equipment.

- Through a blood transfusion in a country where blood donation is not screened for hepatitis B – all blood for transfusion in UK is screened.
 - By sharing razors and toothbrushes (which may be contaminated with blood).
- Normal contact or activities such as sharing bathrooms, toilets, holding hands, hugging, coughing, sneezing etc does not spread Hepatitis B.

Reasons for testing for Hepatitis B in pregnancy

There is a high risk that an infected woman will transmit Hepatitis B to her baby.

- Babies born to mothers known to be infected can be offered a course of vaccination which should commence within 24 hours of birth.
- Babies who receive the vaccine are very unlikely to become infected.
- If a mother has declined to have the blood test but is Hepatitis B positive, her baby is at serious risk of becoming infected.
- Almost 90% of babies infected at birth and who have not been vaccinated will become Hepatitis B carriers. In addition to being infectious themselves, they have a 30% - 50% chance of developing chronic liver disease.

Benefits of having Hepatitis B test

If results are found to be positive:

- Mothers are offered specialist care and treatment.
- Plans are made for an immunisation programme for the baby following birth. This will reduce the risk of transmission of Hepatitis B from mother to baby by 90-95%.

Points for Consideration

Breast Feeding

In the light of current knowledge there is no contraindication to breast feeding if a mother is Hepatitis B positive and providing the baby is vaccinated within 24 hours of birth and completes the course of vaccination.

Insurance/Mortgage

There are implications for life insurance and mortgage applications should the Hepatitis B test prove positive. However, this is balanced by the benefits of specialist care for mother and baby.

Whilst we recommend that you have the test, it remains your decision and will not affect the quality of your care.

You can have the test for Hepatitis B either at your booking visit or at any time during your pregnancy.

Mothers whose results are **positive** will be contacted as soon as the result becomes available and referred for specialist advice and treatment if necessary.

Where the result is **negative** you will be informed of this at your routine antenatal appointment.

There will be an opportunity to discuss these issues further at your booking visit or you may contact the British Liver Trust, Freephone: 0800 001000, 9:00am – 5:00pm, Monday to Friday.

HIV (Human Immune Deficiency Virus)

The Department of Health advice is that **all** pregnant women be offered and recommended to have a HIV test as part of their antenatal care.

Most women who have HIV feel well; a blood test is a way of identifying those who have the virus.

An HIV positive mother can pass the virus to her baby before or during childbirth or by breast-feeding.

Sadly, 20% of babies who are infected with HIV and do not have treatment will develop AIDS or die within the first year of life.

Treatment can reduce the chance of babies born to mothers with HIV becoming infected from 25% to less than 5%.

What are the signs and symptoms of HIV?

- Most people with HIV do not have any signs of illness.
- A few may develop symptoms such as tiredness, lethargy, fever, sore throat, enlarged glands or sore muscles and joints.

How can HIV be transmitted?

HIV infection is spread by direct contact with an infected person's blood or certain body fluids.

The main ways by which infection is spread are:

- By sexual intercourse with an infected person without condom (including oral sex)
- By sharing contaminated needles or other equipment for drug injecting.
- From an infected mother to her baby during pregnancy, while giving birth, through breast-feeding.
- By tattooing, ear and body piercing or acupuncture with unsterilised needles and equipment.
- Through a transfusion in a country where blood donations are not screened for HIV – (all blood for transfusion in the UK is screened)
- By sharing razors and toothbrushes (which may be contaminated with blood) with an infected person.

Normal daily contact and activities do not spread HIV.

Benefits of having HIV test

If results are found to be positive:

- Specialist care during pregnancy and childbirth
- Mothers with HIV can be given drugs to help reduce the risk of transmitting the virus to the baby.
- Babies are advised to be delivered by Caesarean Section.
- Infected mothers are advised **not** to breast-feed.

Breast Feeding

There is clear evidence that breast-feeding should be avoided where the mother tests HIV positive. Where this presents difficulties for the mother and her family, individual advice and support will be given.

Insurance/Mortgage

There are implications for life insurance and mortgage applications, however, this is balanced by the specialist care for mother and baby where the HIV test proves positive.

Whilst we recommend that you have the test, it remains your decision and will not affect the quality of your care.

You can have the test for HIV either at your booking visit or at any time during your pregnancy.

Mothers whose results are **positive** will be contacted as soon as the results become available and referred for specialist advice and treatment if necessary.

If you consider yourself to be at risk you may need further counselling/testing and are advised to discuss this with your midwife or doctor.

Where the result is **negative** you will be informed at your routine antenatal appointment.

There will be an opportunity to discuss these issues further at your booking visit or you may wish to contact:

National AIDS Helpline

0800 567 123

Terence Higgins Trust

020 7242 1010

(10:00 am – 12:00 noon, everyday)

Positively Women

020 7713 0222

(10:00am – 4:00pm, Monday, Wednesday, Thursday and Friday)

(10:00am – 2:00pm, Tuesday)

Screening for Down's Syndrome and Spina Bifada

This is an optional test, which you may choose to include in your plan of antenatal care. The blood test will tell you what your chances are of having a baby with Down's Syndrome and Spina Bifada in this pregnancy.

This test measures the levels of certain chemicals in the mother's blood and uses this information in combination with the mother's age, weight and gestational age to estimate the risk of the baby having Down's Syndrome. The detection rate of the test for Down's Syndrome varies according to the mother's age. If you decide to have this

blood test, the sample will be taken when you are 15 weeks pregnant and a result will normally be available in 7 – 10 days.

One of the chemicals measured in the blood sample is AFP (alpha feta protein) which, if raised, may indicate a risk of Spina Bifada. You will be offered an Ultrasound appointment as Spina Bifada may be detected on Ultrasound scan at this early stage of pregnancy.

‘Lower Risk’ result

If the results of the triple test show that the chances of your baby having Down’s Syndrome is less than 1 in 250 you will be regarded as having a ‘lower risk’ result and you will not be offered any further tests. However, since this test is not a diagnostic test, a small number of mother’s who have a ‘lower risk’ result will have a baby with Down’s Syndrome. If you have not had a result within 14 days you can assume that your test showed a ‘lower risk’ result.

‘Higher Risk’ result

If your results show an increased risk of you having a baby with Down’s Syndrome, i.e. a risk greater than 1 in 250. You will be regarded as having a ‘higher risk’ result and will receive an immediate appointment to discuss these results with a Midwife or Obstetrician at the hospital.

It is important to remember that the majority of mothers who have ‘higher risk’ result will have a perfect, healthy baby. A screening test tells you the risk of your baby being affected but does not mean that your baby has an abnormality. If you have a ‘higher risk’ result you will be offered an amniocentesis which is a decisive test to confirm whether or not your baby has Down’s Syndrome.

Further Information

This booklet has been put together to inform you of the screening tests that will be offered to you at your booking visit. We realise there are many aspects of these tests which you may wish to discuss before coming to a decision, and you will be given the opportunity to talk it through with your Midwife or Doctor at your booking.

For further information there is a list of useful web sites which can be found on the Liverpool Women’s Hospital web site. Go to: www.lwh.org.uk, click on Clinical Services, Support & Information, Useful Organisations.

If you require any advice about the information on the web sites please speak to a midwife or doctor at the hospital or a community midwife at the GP surgery.

References:

Children in need and blood-borne viruses: HIV and Hepatitis, Department of Health, 2002

Guidance for the use of routine antenatal anti-D prophylaxis for RhD-negative women, National Institute for Clinical Excellence, May 2002.