

## Prenatal Screening and Diagnosis ?

The first half of pregnancy is a time when various tests are offered to check for potential problems, by blood tests (pages 6-7) and ultrasound scans (pages 8-9). The tests listed here are the ones offered in the NHS. We can list only brief points here, but further information can be found on [www.screening.nhs.uk](http://www.screening.nhs.uk) and a leaflet, 'Screening tests for you and your baby' will be available from your midwife or doctor.

**Do not hesitate to ask what each test means.** The choice is yours and you should have all relevant information to help you make up your mind, before the visit when the test(s) are actually done.

### Blood Tests and Investigations

**Asymptomatic bacteriuria** is a bladder infection that has no symptoms. Identifying and treating it can reduce the risk of developing a kidney infection. It can be detected by testing a urine sample (Mid stream urine).

**Anaemia** is caused by too little haemoglobin (Hb) in the red blood cells. The Hb is usually tested as part of the 'full blood count'. Hb carries oxygen and nutrients around the body and to the baby. Anaemia can make you feel very tired. If you are anaemic, you will be offered iron supplements and advice on diet.

**Blood group & antibodies.** This test tells us your blood group; whether your blood is Rhesus Positive (Rh +ve) or Negative (Rh-ve); and whether you have any antibodies (foreign blood proteins). If you are Rh-ve, you will be offered blood tests to check for antibodies. If your baby has inherited the Rh+ve gene from the father, antibodies to the baby's blood cells can develop in your blood. To prevent this, you will be advised to have 'anti-D' injections whenever there is a chance of blood cells from the baby spilling into your blood stream (e.g. due to miscarriage, amniocentesis or CVS, vaginal bleeding, a blow to the abdomen, and after the birth of the baby). It is recommended that Anti-D is given routinely to all Rh -ve mothers at 28 and 34 weeks of pregnancy.

**Rubella (German Measles).** Rubella infection early in pregnancy can damage your baby. A test is offered to check your immunity (ability to fight infection). Most women are protected by routine rubella vaccinations given in childhood, but if you are not immune, you will be advised to be immunised after the birth. Inform your midwife or GP if you develop a rash.

**Hepatitis B** is a virus which infects the liver. If you are a carrier of the virus or have become infected during pregnancy, you will be advised to have your baby immunised at birth to avoid infection.

**Syphilis** is a sexually transmitted disease and can seriously damage your baby if left untreated. If detected, treatment can be offered with antibiotics to control the infection and to help protect your baby.

**HIV** (Human Immunodeficiency Virus) affects the body's ability to fight infection. This test is important because **any** woman can be at risk. It can be passed on to your baby during pregnancy, at birth or through breastfeeding. Treatment given in pregnancy can *greatly* reduce the risk of infection being passed from mother to child. A negative test does not affect past or future life assurance claims.

**Sickle Cell and Thalassaemia** are blood disorders that can be passed from parent to child. You will be offered a blood test if you are living in an area with high occurrence of the disorder, or if there is an increased chance of you being a carrier without knowing. This is the case if you or your family come from Africa, the Caribbean, India, Pakistan, Bangladesh, South East Asia, China, the Middle East, or Mediterranean countries (e.g. Greece, Italy, Turkey, Cyprus). The results may require the **baby's father** to be tested.

**Additional tests** may be offered as necessary, for example to check for infections which can cause damage to the developing baby, but rarely cause problems for the mother. Inform your midwife or GP if you develop any rashes or if you think you have been in contact with any of the following:

- **Chicken pox** can cause problems to the developing baby if caught before 20 weeks of pregnancy. It can also be passed to the newborn baby if caught within 10 days prior to the birth.
- **Cytomegalovirus (CMV)** prevention involves careful hygiene especially thorough washing of hands.
- **Parvovirus (slapped cheek syndrome)** often causes a red rash on the face and is mostly seen in children.
- **Toxoplasmosis** is caused by an organism that is found in cat faeces, so always wear gloves when gardening or changing cat litter. Also make sure that all food is washed and thoroughly cooked before it is eaten.

**Chlamydia** is a sexually transmitted infection which can result in pelvic inflammatory disease and infertility. If you are under 25, you may be offered a simple test, either a vaginal swab or urine test. If positive, antibiotics will be offered to you and your partner.

### Screening for Down's syndrome

Down's syndrome is a condition caused by the presence of an extra chromosome in a baby's cells. It occurs by chance at conception and is irreversible, it is not caused by anything either parent has done. There is no such thing as a typical person with Down's syndrome, they vary a lot in appearance and ability, but are at an increased risk of health problems such as learning difficulties and heart and bowel problems. It is not possible to tell how much a baby will be affected when they grow up. All pregnant women should be offered screening for Down's syndrome.

These tests can show if there is an 'increased chance' or 'higher risk' of your baby having Down's syndrome. Agreeing to a screening test does not mean you have decided what to do if a problem is found. Some couples simply prefer to know in order to be prepared, whilst others choose to end their pregnancy.

**The tests:** The National Screening Committee (NSC) recommends screening is available early in pregnancy. The test offered does depend on how early we see you in your pregnancy. A combination of blood tests and an ultrasound scan are available. Your midwife will give you more information about the tests available locally.

- **Blood Test:** a sample is taken from the mother and sent to the laboratory to measure the levels of chemicals or substances naturally found in your blood and those passed from the baby.
- **Nuchal Translucency (NT) scan:** this is a special ultrasound scan done between 11 and 13 weeks. The amount of fluid lying under the skin at the back of the baby's neck is measured and the result added to the measurement from the blood test.
- **The combined test:** a combination of the result of the NT scan and a blood test, offered early in pregnancy - before 14 weeks.
- **The triple or quad test:** a combination of a number of chemicals found in the blood, available after 15 weeks and before 20 weeks.

**The result:** Your risk or chance of having a baby with Down's syndrome is calculated as above or below a NSC recommended cut-off limit. Your result should be available within two weeks and your midwife will tell you how you will get your results. *High result:* it is most likely that your baby does not have Down's syndrome. You will be offered an additional test to make an accurate diagnosis, such as CVS or Amniocentesis. For more information about these tests see page 8.

*Low result:* it is important to be aware that none of the tests are 100% accurate, they detect between 70-90% of all cases.



**PRINTER: Cut sheet on dotted line exactly (at 61)**

**Investigations** If additional blood tests / investigations are required, please record on page 15 and update management plan

Booking	Explained	Accepted by mother No Yes	Date taken	Results	Action	Signed*	
Mid-stream urine	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
Hb	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
Blood group	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
Antibodies	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
Sickle cell	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
Thalassaemia	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
Rubella	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
Hepatitis B	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
Syphilis	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
HIV	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
Leaflet(s) given <input type="checkbox"/>	Date <input type="text"/>	Date <input type="text"/>	Comments				Signed*
	Care provider	Care provider					
Father of the baby	Explained	Accepted	Date taken	Results	Action	Signed*	
Test	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
<input type="text"/> Date <input type="text"/>	/ /	/ /	/ /				
Leaflet(s) given <input type="checkbox"/>	Date <input type="text"/>	Date <input type="text"/>	Comments				Signed*
	Care provider	Care provider					
28-week check	Explained	Accepted No Yes	Date taken	Results	Action	Signed*	
Haemoglobin	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
Antibodies	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
Date <input type="text"/>	/ /	/ /	Comments				Signed*
	Care provider	Care provider					
Anti D prophylaxis	If Rh -ve	Accepted No Yes	Date given	Site	Batch No.	Dose	Signed*
28 wk Anti D	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
34 wk Anti D	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	/ /				
Leaflet(s) given <input type="checkbox"/>	Date <input type="text"/>	Date <input type="text"/>	Comments				Signed*
	Care provider	Care provider					

**Screening Tests for Down's syndrome**

Screening explained	No <input type="checkbox"/> Yes <input type="checkbox"/>	Test offered	No <input type="checkbox"/> Yes <input type="checkbox"/>	Test type <input type="text"/>	Date taken <input type="text"/>	Signed*	
NSC leaflet given	No <input type="checkbox"/> Yes <input type="checkbox"/>	Accepted by mother	No <input type="checkbox"/> Yes <input type="checkbox"/>				
Date <input type="text"/>	/ /	Results	Action				Signed*
*Signed	Care provider	High <input type="checkbox"/>					
		Low <input type="checkbox"/>					

\* Signatures must be listed on page 22 for identification

Name
Unit No