



The Code of Consumers' Rights requires your midwife or doctor to make sure that you understand why any test, procedure or medication is being recommended so that you can make an informed decision about whether or not to have it. Before you have any test or procedure during pregnancy you should be asked to give your informed consent.

Here are some questions you can ask your caregiver that can help you to make an informed choice about any test or procedure being offered or recommended:

- Why do I need this screening test carried out?
 - Will and/or the baby be healthier for having it done?
 - Is it routine? If so, why?
 - What are the known side effects and are there any risks?
 - How will the results affect the care offered to me during the remainder of my pregnancy?
 - What is the risk to the baby or me if I don't have it done?
 - Are there any other ways to gather this information?
- You also have the right to privacy while you make your decision. It is okay to ask the person to leave while you discuss your options with your husband/partner/family or to ask for more written information to take away and consider before deciding what your answer is. You also have the right to ask for a second opinion from another health professional.
- "Conventional prenatal care is increasingly focused on potential problems. Every visit is an opportunity to be present with all the risks associated with pregnancy and birth," Michael Odent wrote. "It does not have to be like this. The choice to accept or refuse any of the antenatal screening tests on offer is yours to make."

tests (maternal serum screening) taken when screening for Down syndrome require maternal weight in order to produce an accurate assessment of risk.

BMI (body mass index) is a measurement of body fat based on height and weight. However, for many women, particularly those of Asian and Pacific descent, the BMI which is based on 'healthy' weights for people of Caucasian European ethnicity does not provide an accurate or useful assessment. Weight gain in pregnancy related to a woman's BMI before she becomes pregnant is now considered to be a better assessment. Your BMI should be discussed and calculated at your first antenatal check-up.

Ultrasound Scans

An ultrasound scan is a way of seeing the growing baby and hearing its heartbeat during pregnancy. Routine ultrasound scans have now become a part of pregnancy care despite a lack of evidence that they result in improvements in outcomes for the baby.

Ultrasound scans during the first three months of pregnancy are done to assess the age of the baby, count the number of babies, and predict the date of the baby's birth. Scans done during this time are only able to detect some major abnormalities, and detection rates depend on the skill and expertise of the person doing the scan as well as the quality of the scanning equipment. Ultrasound scans are also commonly performed between 18-20 weeks of pregnancy and examine the baby for some abnormalities, as well as checking on the number of babies and the position of the placenta. However, it should be noted that only half of all major abnormalities are able to be detected by an ultrasound scan. Even if no abnormalities are seen, there is still a possibility that the baby will have a problem.

Screening for Down syndrome and other conditions

There are now two options for screening for Down syndrome and other chromosomal conditions, depending on when a woman begins her antenatal care.

Nuchal Translucency (NT) scan and blood test (First trimester combined screening)

An NT scan is performed when a mother is between 11 weeks and 13 weeks and 6 days pregnant, to assess the risk of the baby having Down syndrome or some other rare chromosomal abnormalities. During the scan the thickness of the fold of skin at the back of the baby's neck is measured. The result of the NT scan is mathematically combined with the result of a blood test done at 11-12 weeks that measures hormone levels, and other information such as your age and weight to calculate the risk of your baby having Down syndrome or some other conditions.

An NT scan does not provide an accurate diagnosis of Down syndrome, only an amniocentesis can do that.

Second trimester maternal serum screening

Second trimester screening does not involve an NT scan. It combines the result of a blood test with other information such as your age, weight, and how far through your pregnancy you are. Further information on Screening for Down syndrome and other conditions can be found on the National Screening Unit website: www.nsu.govt.nz/current-nsu-programmes/antenatal-screening.aspx

Amniocentesis

This is a diagnostic procedure that involves inserting a needle through the abdominal wall of the mother and withdrawing a small quantity of the amniotic fluid that surrounds the baby. It is usually carried out between 15 and 18 weeks of pregnancy. There is a risk of 0.5-2% of miscarriage following the procedure and many women experience cramping and/or mild bleeding in the days afterwards. It takes two to three weeks to get the results and if an abnormality is found, the woman/parents must then decide whether or not to terminate the pregnancy. Genetic counselling is usually offered prior to and following this procedure.

Polycose and Oral Glucose Tolerance tests (GTT)

Two tests for gestational diabetes are being offered as a routine part of antenatal care for many pregnant women, though there are increasing concerns about the impact this is having on women, their pregnancies and our health services, and the lack of evidence for routine screening. The first test, at 24-28 weeks of pregnancy, involves attending a local diagnostic laboratory where you will be given a polycose drink (50g of glucose), then one hour later a blood sample is taken. If this blood sample contains more than 7.7mmol/l of glucose a further Oral Glucose Tolerance Test (GTT), which is a diagnostic test, is recommended.

Prior to the Glucose Tolerance Test you will be required to fast for 12 hours (overnight) and then a blood sample will be taken to measure your fasting blood glucose level. You will then be given 75g of glucose to drink and another blood sample will be taken two hours later to check your blood glucose level. These tests carry their own physical 'challenges' or stressors to both you and your unborn baby.

If you are diagnosed with gestational diabetes you will be offered support to make dietary changes to manage your blood sugar levels. If you are not able to keep your blood sugar levels in the normal range with dietary changes alone you will be recommended to have insulin treatment or an oral anti diabetic drug called metformin. However, any drug which crosses the placenta must be viewed with caution as there always remains the possibility of unrecognised long-term effects. As safety concerns have been raised about the use of metformin for gestational

diabetes due to the lack of evidence on the long-term safety for both mother and baby, based on current information insulin is still the best option.¹¹

For more information to help you make an informed decision about testing for gestational diabetes visit the MSCC website and see chapter 4 of Dr Sarah Buckley's book *Gentle Birth, gentle mothering*.¹⁰

Smoking assessment

All pregnant women are asked if they smoke. Smoking affects the baby's growth and can cause problems with the placenta as well as having effects on the mother's long-term health. Research has shown that women who become smoke-free during pregnancy (especially prior to 16 weeks gestation) significantly reduce pregnancy-related complications such as prenatality and low birth weight. If you smoke your LMC can refer you to fully funded Quit Smoking services.

Screening for domestic violence & sexual abuse

Your LMC is required to ask you questions about domestic violence and sexual abuse. While this sort of questioning does not involve the type of physical invasion that blood tests, ultrasound scans and other tests do, they are all part of an increasing number of risk assessments and diagnostic tests currently being routinely carried out on pregnant women.



References

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SCREENING DURING PREGNANCY

Your Choice



Screening During Pregnancy



There are an increasing number of screening and diagnostic tests and monitoring procedures now being undertaken during pregnancy. Some of these procedures have been part of maternity care for decades despite a lack of evidence that they are of any benefit to either the mother or the baby. The medicalisation of pregnancy can begin as soon as a pregnant woman visits a doctor/midwife. From the first trimester onwards she will be prescribed or offered a series of tests and procedures at regular intervals throughout her pregnancy.⁽¹⁾

This leaflet provides you with information about various pregnancy screening and monitoring tests and the benefits and risks of having them.

Your midwife or doctor is legally required to explain why any tests and procedures are being offered to you, what the procedures involve, the risks and benefits of having them, the accuracy of the results, and how these results will affect your care so you can choose whether or not to have them.

First blood tests (maternal serum screening)

At one of your first antenatal visits your midwife or doctor will usually give you a form to go to a medical laboratory for your first blood tests. Six different tests are usually carried out on the first blood sample you agree to give. The tests are:

- Blood group and Rhesus factor
- Full blood count
- Hepatitis B
- Rubella
- Syphilis
- HIV

Your GP or midwife should explain what tests are being requested and why so that you can decide whether to have all or any of these tests done on your blood sample.

Blood group and Rhesus factor

Your blood is tested to find out or confirm your blood group – A, B, O or AB.

It is also tested to see if you are Rhesus Factor (Rh) Positive or Negative. Rhesus factor is a substance most people have in their blood. If you do not have it you are Rhesus Negative.

If you are Rhesus Negative and your baby is Rhesus Positive this will not be a problem for your first baby, but it may result in severe anaemia for other Rhesus positive babies in subsequent pregnancies. This is due to some of the first baby's Rhesus positive blood getting into your blood stream if you bleed during pregnancy or following the birth as your blood may create antibodies. Treatment in the form of Anti-D injections are offered to stop the production of antibodies in your blood which may cross the placenta and attack and destroy the next Rhesus positive baby's red blood cells, leading to haemolytic anaemia. Anti-D is therefore offered after the birth of any Rh positive baby, or after a miscarriage or a termination of pregnancy (abortion).

If your blood is Rhesus Factor negative and you experience any bleeding from the vagina during pregnancy, it is important to tell your Lead Maternity Carer (LMC) as soon as possible, so you can be checked and treated with Anti-D if necessary.

If you are Rhesus Negative you will be offered a second blood test at around 28 weeks of pregnancy.

Full Blood Count

Your blood is tested to see if there is a healthy amount of iron in your circulating blood, and also in your body's iron stores. Low levels of haemoglobin (Hb), the oxygen-carrying component of red blood cells, may mean that you are anaemic, which can increase tiredness and loss of energy during pregnancy. There is also some evidence

that it can lead to premature labour.

However, it is natural for iron levels to drop during pregnancy as there is a large increase in the circulating blood plasma or fluid which dilutes the number of red blood cells.

Eating foods that have a rich source of iron in them, such as leafy dark green vegetables, wholemeal breads, potatoes, raisins and prunes, and lean red meat is recommended. Vitamin C helps your body absorb the iron in your diet, so it is helpful to eat fruit rich in Vitamin C with your iron-rich foods.

Hepatitis B

Hepatitis B is a virus that can cause inflammation of the liver. Most people who are carriers of the Hepatitis B virus do not have any symptoms of illness. Mothers who have the virus, or are carriers, are likely to pass the virus on to their newborn babies. Babies who become infected are at risk of life threatening liver-related diseases. If you test positive for Hepatitis B you will be offered a course of vaccinations for your baby that start within two hours of birth. Most babies who are vaccinated will not become infected with the Hepatitis B virus.

Rubella (German measles)

This test is done to see if you have antibodies to rubella. If you catch rubella during the first 16 weeks of pregnancy, it can cause miscarriage, stillbirth or severe problems such as deafness, brain damage, and heart defects in your baby. If you have insufficient rubella antibodies in your blood you will need to stay away from anyone who has rubella while you are pregnant and you will be offered a rubella vaccination after you have given birth.

Syphilis

Syphilis is a rare sexually transmitted infection, but it has become more common in recent years. If your blood test reveals that you have syphilis you will be offered antibiotics in order to prevent serious health problems for you and your baby, as the infection can be transmitted from mother to baby during the birth and has long-term adverse consequences for both mother and baby.

HIV/AIDS

An HIV test can now be included in the first antenatal blood test, though very few women are diagnosed with HIV during pregnancy.⁽²⁾ Most HIV positive women in New Zealand know they have the virus prior to becoming pregnant. This test does have some false positive results, which will require a second blood test which usually shows that the mother is not HIV positive.

The Human Immunodeficiency Virus (HIV) can cause AIDS, and if you have HIV there is a 25% chance of passing the virus to the baby during pregnancy or birth. Women with HIV are offered a combination of treatments that reduce the risk of the baby becoming infected to less than 1%.

Chlamydia

Chlamydia is the most commonly diagnosed sexually transmitted infection in New Zealand. Some women may notice unusual vaginal discharge, but most women will not have any symptoms. Chlamydia can be detected in a urine sample, or a vaginal swab that you can do yourself, or your midwife can do for you. Women with chlamydia infection are offered antibiotics to reduce the risk of the baby becoming infected during the birth, causing conjunctivitis and pneumonia of the newborn.

Blood pressure monitoring

Blood pressure is the amount of force exerted by the blood against the walls of the arteries. It is measured and recorded regularly during pregnancy. A woman's blood pressure usually falls during the first half of pregnancy but rises again after 32 weeks of pregnancy.⁽³⁾ The increased blood pressure that many women experience in late pregnancy is often a normal physiological response to the increased blood volume at this stage of pregnancy and is known as pregnancy-induced hypertension or gestational hypertension. Pregnancy-induced hypertension is different from the disease pre-eclampsia. An increase in your blood pressure does not by itself mean that you have pre-eclampsia.^(4,5)

However, if your blood pressure is elevated and you have either protein in your urine or oedema (unusual or excessive swelling) your LMC will ask you to have further blood tests and discuss a possible diagnosis of pre-eclampsia, which will require a referral to an obstetrician.

Midstream urine test

This test is done to check for a bladder infection. If significant levels of bacteria are found in the urine, you will be offered antibiotics in order to prevent the more serious possibility of a kidney infection. Urinary tract and/or kidney infections increase a woman's risk of preterm labour.

Weight checks and BMI assessments

Gaining weight is an essential part of growing a healthy baby no matter what your weight was prior to becoming pregnant. If you were underweight when you became pregnant you may need to gain more weight; if you were overweight a smaller weight gain will be recommended.

Despite the widespread practice of measuring maternal weight gain during pregnancy, almost no studies on assessing the usefulness or negative consequences of weighing women have been published. Weighing women at each antenatal check-up is now recognised as a poor method of assessing how well your baby is growing. However, the results of some screening tests such as the blood



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