Screening tests in pregnancy

By Dr David Moore, 23 March 2014

In this article:

What are screening tests and why are they done?

Screening tests are tests that try to identify the presence of a problem or risk factor, in a person who does not show obvious signs of that problem (that is, they have no symptoms, or are "asymptomatic"). This means, by definition, screening tests are applied to healthy people with no symptoms of disease or problems. Like any test in medicine, screening tests are not perfect, and the risk of an untrue result needs to weighed against the benefits of detecting the problem. In essence, this means screening tests should be used o reasonable chance of improving the health or management of the screened person.

What screening tests are done in pregnancy?

In pregnancy, several screening tests are recommended, and others are offered depending on your individual circumstar these tests look for conditions that may alter the management of your pregnancy (e.g. anaemia, Rhesus-negative bloo susceptibility to other infections).

In the absence of specific conditions or complications, the Royal Australian and New Zealand College of Obstetricians ar screening tests, either pre-pregnancy or when pregnancy is diagnosed:

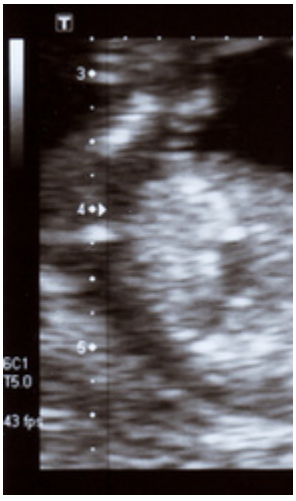
- **Full blood count:** this looks for low blood ("anaemia") and may suggest the underlying cause. Sometimes furthe found.

- **Blood group and antibody screen:** this is to determine you blood type (A, B, AB, or O) and, importantly, your Rh common blood group is A-positive (type A, Rhesus-positive). About 15% of women are Rhesus negative, a management. This test also looks for other "antibodies" which are occasionally of significanceduring a pregnancy.
- **Rubella immunity status:** most women are immune to the Rubella (or German measles) virus, thanks to vaccina immune, your doctor will talk to you about avoiding potential sources of infection during pregnancy, and you should (usually the next day).
- **Other serological tests:** these generally test for the presence of syphilis, Hepatitis B and C viruses, and HIV. Tl infections do*not*have risk factors in theirhistory, and so routine screening is recommended. Additionally, recognition during birth, can significantly reduce the risksto baby during pregnancy and birth.
- **Urine test:** this is a screening test for urinary infection, that may be asymptomatic in early pregnancy. Importantly, th (bacteruria), when untreated, is associated with and increased risk of preterm birth owing to complicated infection of
- **Pap smear:** if your next Pap smear would fall due during your pregnancy, you would berecommended tohave a P There is no evidence that a Pap smear is harmful in pregnancy, although you should tell your doctor if you may be test collection.

Other screening tests that may be suggested include:

- **Varicella (chickenpox) immunity:** if you donot have a clear history of chickenpox, this test may be used to work immune status can be helpful if you are exposed to chickenpox during pregnancy. A known history of chickenpox, e immunity.
- **Thyroid function:** routine screening of thyroid function remains an area of controversy and research. However, dep history, you may be screened for thyroid disorders.
- **Vitamin D:** vitamin D playsan important role in bone health, and the prevalence of vitamin D deficiency appears t supplementation in pregnancy may be recommended, sometimes your level will be checked beforehand, especiall skinned women).
- **Toxoplasmosis and cytomegalovirus (CMV) immunity:** routine testing for evidence of previous exposure to thes there is no effective vaccine at present, there is no effective way of reducing transmission to a fetus from th demonstrating immunity does not eliminate the risk of re-infection during pregnancy. These infections are very c children or adults) and most people are already immune. If you are at particular risk of these infection (for instance, to know your immune status; however, the general rule of good hygiene and careful food preparation, and avoiding "flu", is recommended regardless.

Screening ultrasounds



Unlike X-rays and CT scans,ultrasounds use non-ionising energy to produce clinical images, and are considered very safe in pregnancy. The following outlines some of the routine ultrasound scansmost women have during their pregnancy:

1. **Dating or "viability" scan:** this is bestrequested between 7 and 10 weeks after a missed period. It provides reassurance that baby is growing well, and serves to confirm your estimated due date. It is highly accurate in estimating the current duration of your pregnancy to within 4 days. If done earlier than 7 weeks, sometimes an internal ultrasound (where the probe is sheathed and placed inside your vagina) is required to see the baby.

2. **Nuchal translucency or "12 week" scan:** this scan is done as part of Combine First Trimester Screening (CFTS) Down Syndrome. The scan is performed between 11 and 14 weeks (usually around 12-13 weeks), and also assessment. The result is not a "yes" or "no" for Down Syndrome; rather, it givesa personalised assessment of the in a specific pregnancy. A scan at this stage is also highly accurate for estimating your due date (error range of 4 da of baby's development to date. Thus, even couples not wishing to undergo risk assessment for Down Syndromema blood test or specific measurements required for CFTS.
3. **Morphology or "19 weeks" scan:** during this scan a complete "anatomical survey" of baby is taken, to rule ou congenital heart defects. It is usually performed between 18 and 24 weeks. Importantly, while a normal scan is very identified during this scan. This scan also determines the position of the developing placenta, to make sure it is clear

Depending on a woman's history and current pregnancy, additional ultrasounds may be required. For instance, if the pl cervix) at the morphology scan, a later scan (around 32-34 weeks) will be ordered to ensure it has moved clear. In ultrasounds are required, every 2-4 weeks, to ensure both babies are growing well and without complications.

Other screening tests:

Gestational diabetes screen

Gestational diabetes mellitus (or GDM) is a condition that develops in pregnancy, when the body is not able to make eno levels in the normal range. If untreated, it can result in complications such as blood pressure disorders and large babies GDM affects around 8% of pregnancies, and usually develops in the third trimester, and so a screening test is recom prompt treatment is needed to limit any risk of complications.

36-week blood test

This is a simple blood test to rule out any late pregnancy anaemia, check your platelet count, and confirm the absenc negative.

Non-invasive prenatal testing (NIPT)

NIPT is a relatively newtechnology that aims to accurately predict or exclude Down Syndrome and other chromosomal baby's DNA in the mother's bloodstream. It simply involves a blood test from the mother, and so is "non-invasive" to the most powerful tool for excluding Down Syndrome. Any positive result, however, still needs to be confirmed with amniocentesis. At the moment, there is no Medicare rebate for this test, and generally costs the patient around$400- guide the use of these tests, so it remains for your doctor todiscuss the potential benefits of this test in your particular cas

David practices evidence-based medicine, and strives to ensure all conditions that may complicate a pregnancy are man literature and published guidelines.

About Dr David Moore

David is a Fellow of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists, a Queensland. He is highlyskilled in the management of complex and high-risk pregnancies, and has specia

endometriosis, pelvic floor and incontinence surgery. David has completed a Master of Reproductive Medi
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