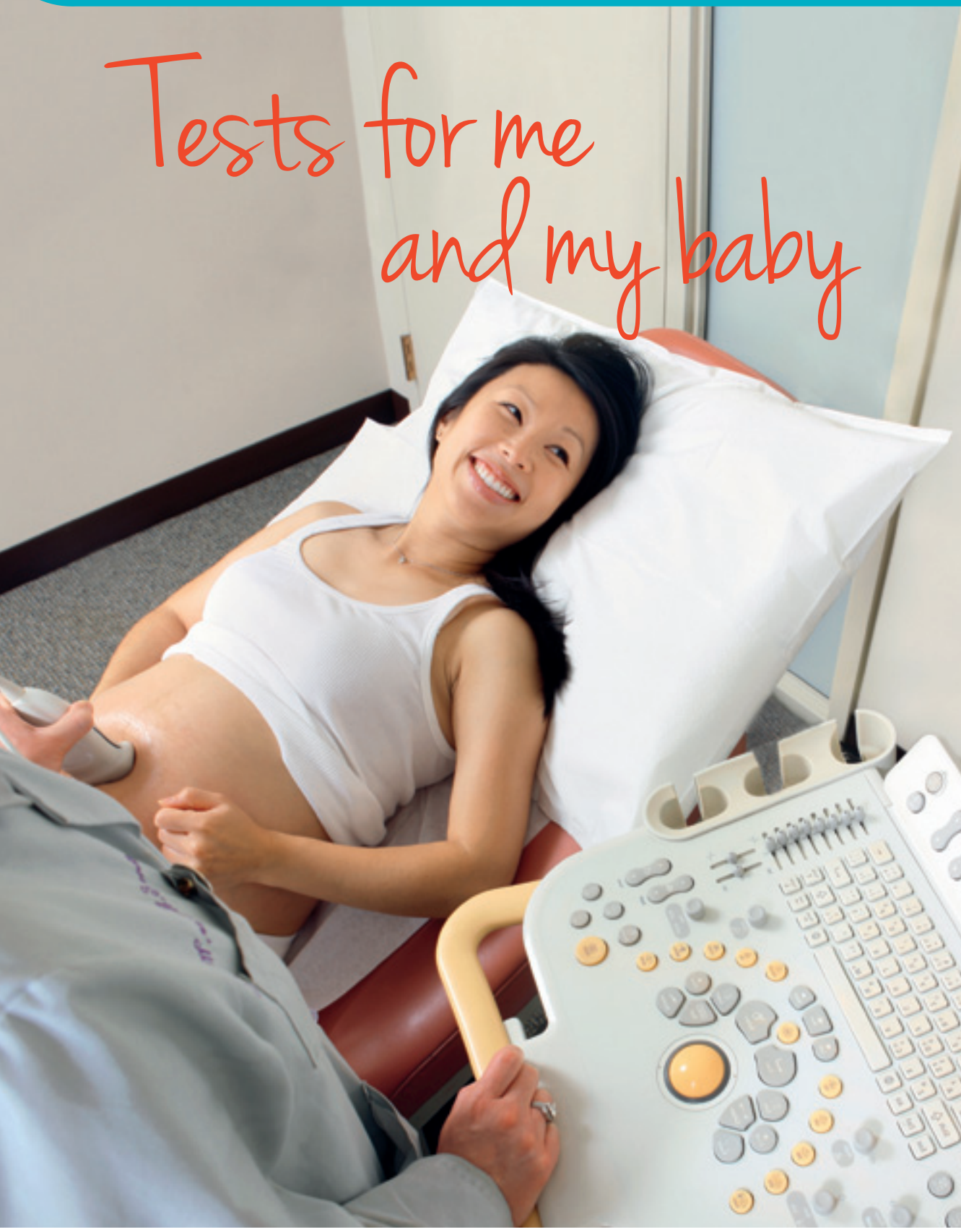
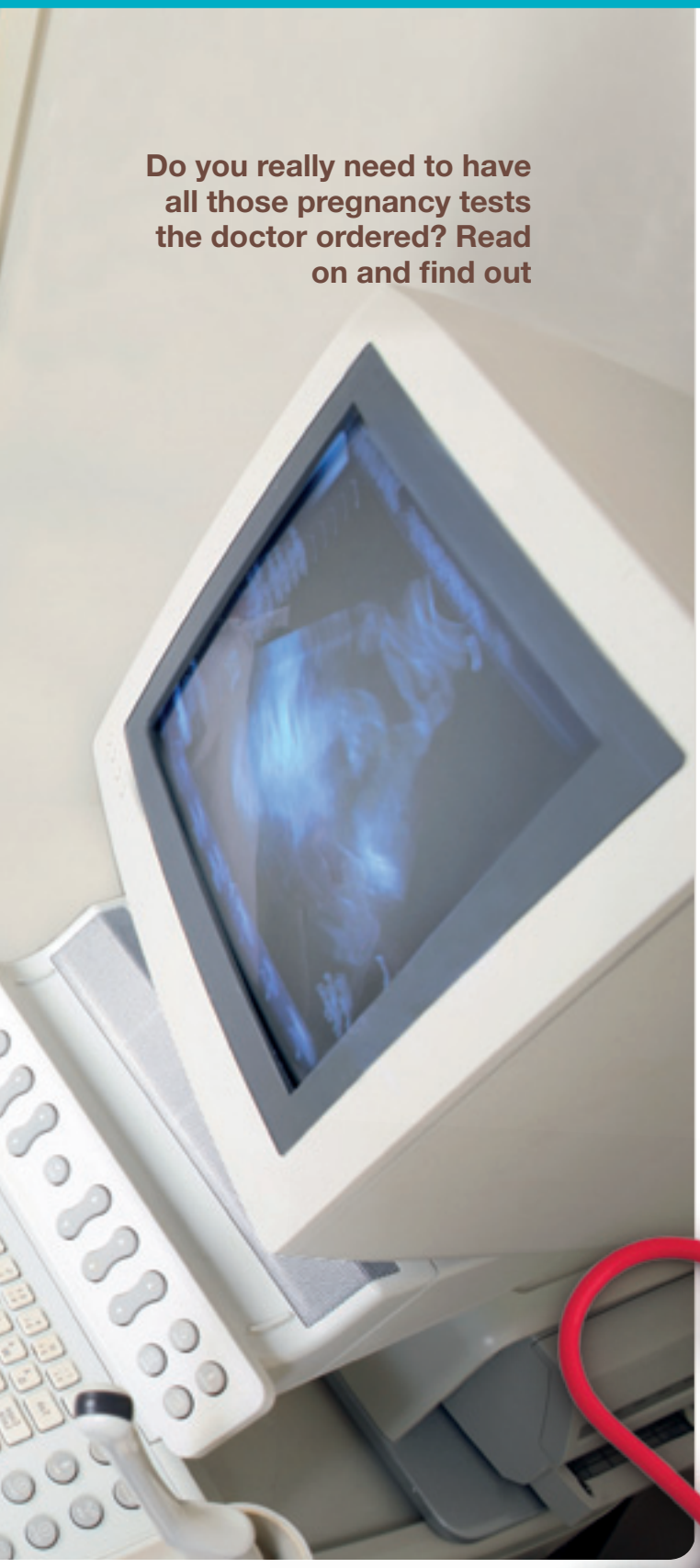
# Tests for me and my baby



**Do you really need to have all those pregnancy tests the doctor ordered? Read on and find out**



If you are expecting, you should ensure that your health is optimum for both you and your baby. Going for your antenatal appointments is a must. It is during this time your doctor checks for any potential problems and addresses them. It is also a chance for you to clear any doubts that you may have.

## Think in weeks, not months

Your doctor will count your pregnancy in terms of weeks, starting from the first day of your last period, to estimate your Estimated Delivery Date (EDD). The "standard" is 40 weeks, although babies are considered full term once they reach 37 weeks. Some women may even have a 42-week pregnancy. A more accurate way to determine when you are due is by doing an ultrasound scan which may be scheduled anytime from the 6th to the 12th week. This will be your first view of your baby and the first time you can see his heartbeat.

## At every check-up

- **Blood pressure:** Your pressure will be checked at every visit to ensure you do not develop pre-eclampsia (see page 41).

- **Urine test:** This tests for the presence of protein, which may suggest pre-eclampsia, kidney problem or urinary

tract infection; and sugar, which may indicate gestational diabetes (see page 40) although it can also be normal in pregnancy.

- **Weight:** To gauge adequacy of maternal nutrition.

## 6 - 12 weeks

- **Dating scan:** This is the scan to ascertain that the foetus is in the correct location, see the baby's heartbeat and to estimate the due date.

- **Full blood count:** This test screens for low blood count and thalassaemia (a common genetic blood disorder in Singapore where an abnormal form of haemoglobin is formed). Low-blood counts are often caused by a lack of iron due to inadequate intake or the greater demands of pregnancy.

- **Hepatitis B antigen screening:** Hepatitis B is a virus that infects the liver. Many people who are infected may not have any symptoms. Hepatitis B can be passed on to the baby at birth. If you are tested positive, your newborn will be given the Hepatitis B vaccine and Hepatitis B Immunoglobulin (HBIG) within the first 12 hours of birth to prevent him from getting infected.

- **Venereal Disease Research Laboratory (VDRL) test:** This tests for Syphilis, a sexually transmitted infection which can be passed to the baby through the placenta during pregnancy. It can cause birth defects and is treatable with antibiotics.

- **Human Immunodeficiency Virus (HIV) test:** HIV can be spread to a baby during pregnancy, labour and delivery. If detected early, appropriate treatment and intervention can greatly reduce the risk of the baby being infected and also improve the mother's health.

- **German Measles (or Rubella) antibody screening:** This blood test will test your immunity to German measles but has no impact on your current pregnancy. Immunity is lifelong and so if you are immune, there is nothing to worry about. If you are not immune and got infected with German Measles during the first four months of your pregnancy, your baby is at risk of having serious birth defects such as hearing loss and heart defects. You should go for vaccination after delivery to protect your future pregnancies.

- **Blood grouping and rhesus status and antibody testing:** Knowing the blood group and presence of antibodies can facilitate getting blood in any emergency situation where a pregnant woman may be bleeding. This test also checks if the mother may develop antibodies. This can occur if the mother is rhesus negative but the father is rhesus positive. Anti-D injection will be offered at 28 and 34 weeks of pregnancy, and after the delivery to prevent the mother from developing antibodies. This minimises the risk of future babies developing haemolytic disease while in the womb or in the newborn, a condition that can lead to anaemia, heart failure and jaundice.

## What is Down syndrome screening?

When a child is born with an extra copy of the chromosome 21, he has Down syndrome. The risk of having a child with Down syndrome increases with the age of the mother although it can occur at any age. It happens randomly and is rarely hereditary.

This is a developmental disorder and the child will have mild to moderate intellectual delay and he is also likely to have heart, hearing and visual defects. Children with this disorder can benefit from stimulation programmes; and some of them can lead a healthy life and live up to 40 - 50 years.

In the past, mothers over the age of 35 were offered amniocentesis or chorionic villous sampling to detect if they may have a Down syndrome baby. This strategy picks up only 30% of Down syndrome babies. Amniocentesis involves taking some amniotic fluid from the baby at about 15 - 20 weeks of pregnancy while chorionic villous sampling involves biopsy of the placenta at about 10 - 13 weeks for testing.

There are now better screening tests which are non-invasive and are offered to all mothers regardless of their age. These tests do not tell you if you have a Down syndrome baby but tell you your risk of having one. From this risk, you may make a second decision whether you want to have a confirmatory test. Down syndrome screening is optional and whether you should have one is a decision that only you and your spouse can make. There are various screening tests.

- **Nuchal Translucency (NT) measurement:** This test measures the thickness of the fluid-filled area at the back of the baby's neck at 11 - 14 weeks. Detection rate is 80%.

- **Maternal serum screening:** The mother's blood is measured for AFP (alphafetoprotein) and HCG (human chorionic gonadotrophin), substances produced by the baby and the placenta at 15 - 20 weeks of pregnancy. Mums with low AFP and high levels of HCG have a higher risk of having a baby with Down syndrome. Detection rate is about 66%.

- **Combined Test:** This test combines both nuchal translucency as well as maternal blood test at 11 - 14 weeks. Detection rate is 90% and is the recommended test.

If the screening test shows that the risk of Down syndrome is higher than 1 in 300, you are screen positive. Being screen positive does not mean your baby have Down syndrome. It just means the risk is high enough to consider doing further confirmatory tests which may be in the form of the following:

- **Chorionic villus sampling (CVS):** This is biopsy of the placenta which may be done through the vagina or abdomen. It is usually performed about 10 - 13 weeks. The risk of miscarriage is about 1%. This is also used to test for other genetic problems.

- **Amniocentesis:** This test involves putting a needle into the amniotic sac under ultrasound guidance and drawing out amniotic fluid for testing. This is performed at 15 - 20 weeks. It carries a small risk of 0.5% to 1% of miscarriage.

## 18 - 22 weeks

- **Detailed ultrasound scan (anomaly scan):** The purpose of this scan is to make sure the baby is growing well and there are no major physical defects. However some defects are hard to see and abnormalities may be missed. You may also find out the gender of your baby at this time if he is "cooperative". A frequently asked question is how accurate that is. Suffice to say, it is fairly accurate but you can only be 100% sure after the birth of your baby!

It is important to note that while these tests are advised to allow early detection of abnormalities in the baby, no test is 100% accurate and some abnormalities may remain undetected.