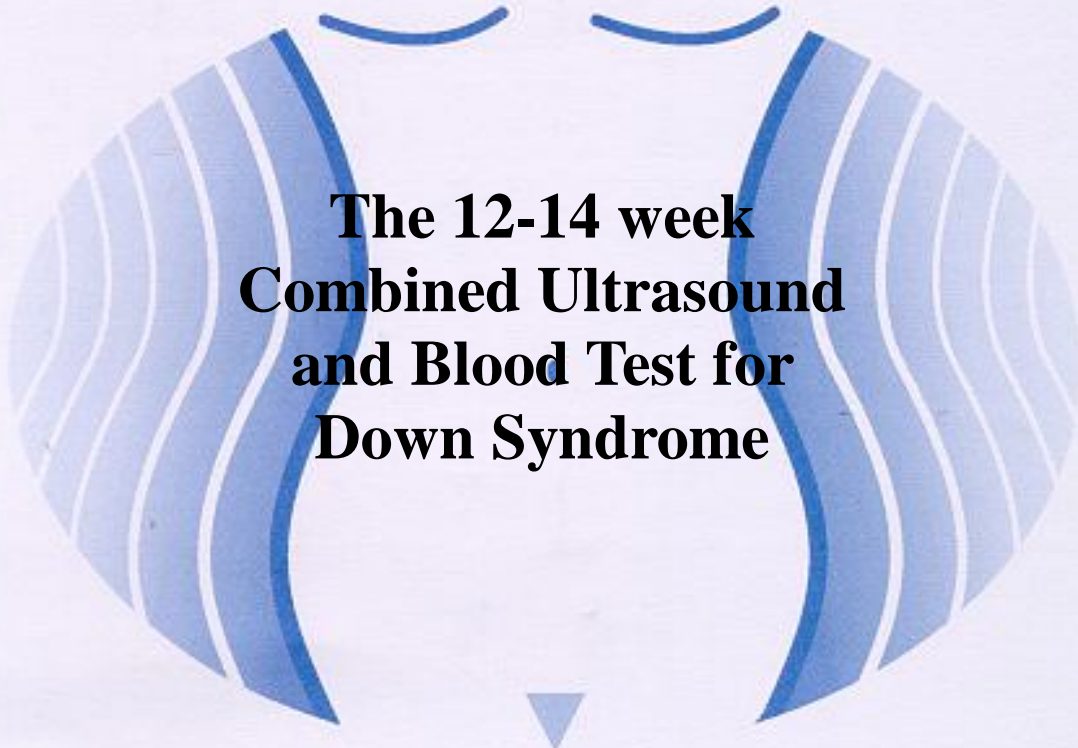


Obstetric and Gynaecological Ultrasound in Mulgrave (formerly Diagnostic Women's Ultrasound), has provided specialist pregnancy and gynaecological ultrasound services to Melbourne's South East and the Dandenong region since 1989.

Dr Simon Meagher is an obstetrician/gynaecologist who has specialised in ultrasound and prenatal diagnosis. He is the Director of Monash Ultrasound for Women, consultant staff specialist at the Mercy Hospital for Women and lecturer at both Melbourne and Monash Universities. He is well known for his clinical and procedural skills and academic achievements, having over 40 publications in local and international journals.

O & G Ultrasound provides a complete range of pregnancy and gynaecological ultrasounds and related procedures including prenatal genetic testing for Down Syndrome. Dr Meagher (obstetrician/gynaecologist/ultrasonologist), Associates and sonographers specialised in obstetric ultrasound, work with state of the art, high resolution ultrasound machines. Together with an experienced team of nurses and support staff, our aim is to provide you with the highest quality ultrasound service available.



The 12-14 week Combined Ultrasound and Blood Test for Down Syndrome

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What is the combined test?

This test has recently become available in Victoria. It is a screening test which combines the results of two proteins in the mothers blood with ultrasound to determine your risk of having a baby with Down syndrome and other chromosomal abnormalities. The accuracy of detecting Down Syndrome is approximately 85-90%. The advantage of this test over others is that a result is obtained early in pregnancy, around 12-14 weeks.

How is the test performed?

Blood is taken from your arm at approximately 10 weeks gestation. This should be arranged through your nearest approved pathology collection service as advised by your doctor. The blood is then dispatched to the Murdoch Institute at the Royal Children's Hospital, in Parkville. Two blood proteins (PAPP-A and beta-HCG) are measured. Approximately 2 weeks later when the pregnancy is around 12 weeks an ultrasound scan is performed. At this examination the fetal development, size, and nuchal translucency are documented (refer Nuchal Translucency leaflet). The nuchal translucency result is faxed to the Murdoch Institute and the results of the blood test and ultrasound are combined to give one result. You will be given the results soon after the ultrasound examination.

How should I interpret the results?

Your results will be given to you as a risk estimate; i.e. the chance of your baby having Down syndrome. For example if you are 28 years old your chance of having a baby with Down syndrome is about 1 in 600. But if you ultrasound result is favourable i.e. a thin nuchal translucency, and biochemistry results favourable i.e. low levels of both proteins, this risk will be reduced to say 1 in 3500 and therefore would be reassuring. ***The combined will result will not however provide you with a definite 'yes' or 'no' answer as to whether your baby has Down Syndrome.***

If the ultrasound shows a thick nuchal translucency and the blood levels are high, your age related risk at 28yrs may be increased from say 1:600 to say 1 in 60. If this situation arises then you have the choice of a definitive test such as chorionic villus sampling or amniocentesis (refer CVS or amniocentesis information leaflet).

Most patients choose CVS as it can be performed soon after the combined result is issued and will provide a rapid early result of the genetic makeup of the baby. Amniocentesis by contrast is performed at 15-17 weeks gestation. CVS and amniocentesis, unlike the combined blood and ultrasound test, provide a definitive answer about Down Syndrome and other chromosomal abnormalities.

Do all pregnant women have this combined test?

No. The decision to have the blood test, the ultrasound, or both is entirely up to you. It is, however, worth considering a number of issues for example:

- a) If testing showed that I was carrying a Down Syndrome baby what would I do?
- b) The test does not identify ALL pregnancies with Down Syndrome.
- c) At what risk figure should I proceed with CVS or amniocentesis.

Most patients choose to proceed with CVS or amniocentesis when the combined ultrasound and biochemistry risk reaches 1 in 300. But it is your choice as to what level you wish to rest with. These difficult issues may be discussed further with your doctor or ultrasound specialist.

Should I have CVS or amniocentesis instead of the combined test?

You may ask yourself should I not just proceed to the definitive test with CVS or amniocentesis and avoid having 2 tests. There are 2 principle reasons why you may choose not to proceed directly to needle testing. Firstly CVS and amniocentesis both carry a significant risk of miscarriage (CVS 1% and amniocentesis 0.5%) and secondly 95% of patients who have the combined test will be given a favourable result, lowering their age related risk.

How accurate is the Combined Test?

By combining the results of the early ultrasound and the early blood tests (ideally at 10 weeks) the test can identify approximately 9 out of 10 pregnancies in which the baby has Down syndrome. This is more accurate than each test alone. It is however important to realize that this test is only for chromosomal abnormalities such as Down syndrome and does not ensure that the baby is free of other possible birth defects.

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