

## Nuchal Translucency Scan

### Consumer Information

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### What is a Nuchal translucency scan?

A Nuchal Translucency (NT) scan (or first trimester of pregnancy screening scan) is the name for a test performed using ultrasound scanning during weeks 11-13 of a pregnancy to screen for Down syndrome or other chromosomal or inherited disorders in the foetus or unborn baby.

The test combines three important pieces of information to provide you with a "combined risk" that the foetus may have one of three specific chromosomal abnormalities, including the commonest, Down syndrome.

The test is best performed from 11 weeks 4 days to 13 weeks 6 days. Doing the test at this early stage of pregnancy allows you to choose if you wish to continue with the pregnancy should the foetus have Down syndrome. Some patients may prefer not to know about these matters before the baby is born.

Nuchal translucency is the name for the fluid behind the neck of a foetus. An NT scan uses ultrasound to measure the amount of fluid. A foetus at risk of Down syndrome tends to have a higher amount of fluid. The thickness of the fluid can predict whether the early foetus may have Down syndrome or a number of other chromosomal abnormalities.

"Ultrasound" is the term used for high frequency soundwaves. An **ultrasound** examination uses these sound waves to produce pictures or images onto a screen that shows the foetus inside your body. The fluid under the skin at the back of the baby's neck appears "black" on ultrasound images and is normally present in all foetuses in early pregnancy.

The measurement of fluid in the back of the neck of the foetus obtained on ultrasound forms one of the pieces of information to identify risk, combined with your age and the results of a blood test that assesses three proteins in the mother's blood. These three pieces of information are combined to produce a statistical risk of Down syndrome or a number of other chromosomal abnormalities in the foetus.

All women are offered this test regardless of their age, and 19 out of 20 women have a normal screening result. If no blood test is performed the test is 75% accurate for predicting Down syndrome. With the blood test the accuracy increases to 85%. Women who return a high risk result from the screening will be offered formal genetic testing with other procedures such as amniocentesis or chorion villus sampling (CVS).

The combination of the NT test, your age, and the blood test gives an overall "risk" or ratio which can be used to guide the discussion between you and your doctor about any further investigation or treatment. If the chance of a chromosomal abnormality is more than 1:300, the patient is offered further testing. This level has been chosen based on research so that unnecessary needle tests are not performed.

One in 20 women will have a "screen positive" result.

Further testing may include offering a needle test (see [Amniocentesis](#) and [Chorion Villus Sampling](#)) to prove or exclude Down syndrome or other chromosomal abnormalities. These needle tests allow definitive exclusion of Down syndrome.

### How do I prepare for a Nuchal Translucency Scan?

There is very little preparation needed. You should have some fluid in the bladder but not be uncomfortably full. Drinking water prior to the examination will enlarge the bladder, enabling the surrounding internal areas to be examined. The hospital or private radiology practice where you are having the ultrasound will provide you with information about this.

It is a good idea to wear comfortable clothing that gives easy access to your lower abdominal area.

The blood test should be ordered by your doctor at 10 weeks. Your doctor will discuss this with you

### What happens during a Nuchal Translucency Scan?

The Nuchal Translucency is measured by performing an ultrasound scan from 11 weeks 4 days of foetal age to 13 weeks 6 days.

You will be asked to lie on an examination couch. A trans-abdominal ultrasound will then be performed. An **ultrasound** examination is performed by a trained health professional (a sonographer or radiologist) using a small, hand-held device called a transducer (or probe). The transducer transmits ultrasound waves which are relayed back to the ultrasound machine to produce images or pictures on to an ultrasound screen. The examination is performed in "real time" which means that the images you see on the screen show what is happening at that moment like a movie. Pictures are taken during the examination.

Warm water based gel is applied to the lower abdomen area and a transducer (a smooth hand held device) is moved gently across the abdomen with a sliding and rotation action.

The ultrasound examination looks at many things, including the size of the foetus, the heart rate, the anatomy or structure of the foetus (checking for normal appearance of the head, heart, abdomen,

spine and limbs) and also how many fetuses are present (one or more).

The NT must be measured accurately and may sometimes be difficult to obtain using a trans-abdominal ultrasound scan because of the position of the fetus. Sometimes a [transvaginal ultrasound](#) may need to be performed to allow this measurement to be taken. In a transvaginal ultrasound, a small specially shaped transducer is inserted into the vagina. Because the transducer is closer to the fetus it can provide clearer images. If a transvaginal ultrasound is needed, the sonographer will explain what will be done and request your permission to do so.

### Are there any after effects of a Nuchal Translucency Scan?

There are no after effects of trans-abdominal ultrasound. You will be able to resume normal activities.

### How long does a Nuchal Translucency Scan take?

The examination takes about 30 minutes.

Sometimes the sonographer will ask you to wait and have the images checked by the radiologist (specialist doctor). Sometimes it will be necessary for the radiologist to attend the examination because it may be important to see the images on the screen rather than just the still photographs.

In some clinics the doctor or specialist will perform the examination and will usually inform you of the findings.

### What are the risks of a Nuchal Translucency Scan?

There are no known risks to performing trans-abdominal ultrasound. It is a technique which uses sound waves to obtain pictures or images and there is no radiation involved.

There are no risks to the foetus (unborn baby).

There is similarly no risk to you or of miscarriage if a [transvaginal ultrasound](#) is performed.

### What are the benefits of a Nuchal Translucency Scan?

The main benefit of any screening test is to assess the possibility of Down syndrome as early as possible in the pregnancy so that you have a choice to continue with the pregnancy.

This will help to guide the discussion between you and your doctor about any further investigation that may be needed.

### Who does the Nuchal Translucency Scan?

The examination is performed by [sonographers](#) who are health professionals specially trained and accredited to perform the test. Sonographers may be male or female. If you are not comfortable with a

male you should let the reception staff know this prior to having the test. In cases where the patient is young, a female chaperone may be requested (usually a nurse at the hospital or practice or a female parent or female family member).

The sonographer may leave the room to show the pictures to the reporting doctor who may come in and scan again if something needs to be checked. A full report of the scan will be written and sent to your referring doctor.

At some hospitals or radiology practices a doctor or specialist may perform the examination.

### Where is a Nuchal Translucency Scan done?

The examination is performed in a radiology department of a hospital, private radiology practice or at a specialist clinic for obstetric and gynaecological imaging. The examination is performed in the privacy of an ultrasound room which may be dimly lit to allow the images on the ultrasound machine to be clearly seen by the person performing the scanning.

### When can I expect the results of my Nuchal Translucency Scan?

The time that it takes your doctor to receive a written report on the test or procedure you have had will vary, depending on:

- the urgency with which the result is needed
- the complexity of the examination
- whether more information is needed from your doctor before the examination can be interpreted by the radiologist
- whether you have had previous X-rays or other medical imaging that needs to be compared with this new test or procedure (this is commonly the case if you have a disease or condition that is being followed to assess your progress)
- how the report is conveyed from the practice or hospital to your doctor (in other words, email, fax or mail)

Please feel free to ask the private practice, clinic, or hospital where you are having your test or procedure when your doctor is likely to have the written report.

It is important that you discuss the results with the doctor who referred you, either in person or on the telephone, so that they can explain what the results mean for you.

#### **Please note:**

This information is of a general nature only and is not intended as a substitute for medical advice. It is designed to support, not replace, the relationship that exists between a patient and his/her doctor. It is recommended that any specific questions regarding your procedure be discussed with your family doctor or medical specialist

The QUDI Program is managed by the Royal Australian and New Zealand College of Radiologists and funded by the Australian Commonwealth Department of Health and Ageing.

**Publication Date:** May 1st 2009

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