What is Nuchal Translucency?

Nuchal translucency (NT) is the appearance on a scan, of a collection of fluid under the skin behind the baby's neck. This fluid is part of baby's normal development in the womb in early pregnancy. The NT scan is performed between 11 weeks + 1 day and 13 weeks + 6 days of your pregnancy, when your baby measures between 45 - 85mm in length.

What does increased NT mean?

It means that your baby's NT measurement is greater than that for other babies of the same length

What is the cause for increased NT?

It is important to remember that in majority of the babies the increased NT detected at an early scan resolves and the babies are born healthy.

Increased NT is associated with a group of conditions and there may not be a single cause for the fluid increase. Exclusion of problems in baby is a staged process.

Studies have shown that an increased NT is associated with:

Chromosomal abnormalities like Trisomy 21 (Down's Syndrome), and other chromosomal conditions (such as Trisomy 18 (Edward's syndrome) or Trisomy 13 (Patau Syndrome).

Genetic syndromes

Congenital heart abnormalities

Increased risk of miscarriage

How is the for chromosomal abnormalities in your baby assessed in the presence of increased NT?

The NT measurement is entered into a computer software along with your age and other characteristics like your body mass index , whether there is a history of previous babies with chromosomal abnormalities etc.

Integrating the above parameters and other ultrasound scan findings, the computer software will generate a risk number. Any risk number of more than 1: 250 is considered 'high risk'. For example: 1: 75 - which means that if there are 75 mothers having the same parameters , then 1 in 75 such mothers have a risk of having a baby with chromosomal abnormality.

What other tests can be done to further assess the risk of having a chromosomally abnormal baby?

You have the following options to further assess the risk of having a chromosomally abnormal baby

- Invasive testing(Chorionic villus sampling) which is the only test to know 100% whether your baby has chromosomal abnormality or not. However it carries a procedure related risk of miscarriage of 1:300

- Non invasive maternal cell free fetal DNA -to assesses the fetal DNA in the maternal blood. It has a detection rate of 99%. If the results are "negative" then very unlikely that the baby has a defect in chromosomes 21, 18 or 13. However, if it is reported "positive" then this will need to be further confirmed by invasive testing

- First trimester Quadruple marker test - which is a blood test that measures four hormones in the mother's blood. It increases the detection rate for chromosomal abnormalities to about 90%

- Sequential screening - Combining the first trimester Combined test (NT + first trimester quadruple marker test) with second trimester quadruple test done at 15 - 16 weeks with Genetic sonogram (anomaly scan) done at 18 - 19 weeks. This has a detection rate of about 95% but does not confirm whether your baby has any chromosomal abnormality or not

What is the further course in the pregnancy?

If the risk for having a chromosomal abnormality in your baby is low or if on invasive testing it is found that the chromosomes of the baby are normal, then you will be called for follow up scan at 18-19 weeks to assess if the baby has any structural problems along with a detailed study of the heart known as fetal echocardiography to rule out any cardiac defects. After that you are asked to have an ultrasound every 4 weeks to monitor the growth of the baby.