FIRST TRIMESTER · PATIENT INFORMATION

Nuchal Translucency (NT): What Is Normal and What Does It Mean?

The fluid behind your baby's neck at the 12-week scan, what an increased measurement may mean, and when further tests are recommended.

Nuchal translucency (NT) is one of the measurements taken at the first-trimester scan. It is a small, fluid-filled area beneath the skin at the back of your baby's neck. Every baby has some nuchal translucency, and in most pregnancies the amount of fluid is within the expected range for the baby's size.

Occasionally, the measurement is larger than expected. An increased NT does not necessarily mean that your baby has a problem, but it is an important finding that needs careful specialist assessment.



Your baby at around 12 weeks

KEY POINTS

- NT is measured between 11 weeks and 13 weeks 6 days, when your baby measures about 45 to 84 mm from crown to rump.
- There is no single normal value: NT increases as your baby grows and is compared with reference ranges for your baby's size.
- An increased NT can be linked with chromosomal or genetic conditions or heart defects, but it can also be a normal variation.
- Many pregnancies with an increased NT have a good outcome when further scans and tests are reassuring.

What is nuchal translucency?

Nuchal translucency is a normal, fluid-filled area beneath the skin at the back of your baby's neck, seen on ultrasound in early pregnancy. The amount of fluid normally increases a little as your baby grows. When there is more fluid than expected for your baby's size, this is called an **increased nuchal translucency**.

When and how is NT measured?

NT is measured between 11 weeks and 13 weeks 6 days, when your baby's crown–rump length (CRL) is about 45 to 84 mm. The scan needs a clear side view of your baby, with the head and neck in a neutral position. The widest part of the fluid-filled space is measured, taking care to tell your baby's skin apart from the membrane around your baby. The scan is usually done

through your tummy, and occasionally an internal scan gives a clearer view. Accurate measurement matters, because a difference of less than a millimetre can change how the result is interpreted.

What is a normal NT measurement?

Because NT increases as your baby grows, it is interpreted against your baby's crown–rump length rather than the number of weeks alone. Most babies have an NT below about 2.5 to 3.0 mm, but these are not fixed limits:

- an NT above the **95th centile** for your baby's size is described as increased
- an NT of **3.5 mm or more** is commonly used as a threshold for a more detailed assessment, whatever your baby's size
- an NT below 3.5 mm may still be above the expected range for a smaller baby.



Normal NT **Slightly increased NT** **Increased NT**

Illustration of the fluid behind the baby's neck, from normal to increased

What does an increased NT mean?

An increased NT is not a diagnosis. In some pregnancies, the extra fluid is a temporary variation that resolves as pregnancy progresses. In others, it can be linked with a chromosomal condition, a genetic syndrome or a structural difference, particularly of the heart. The larger the measurement, the higher the chance of an underlying condition.

Chromosomal conditions

An increased NT is linked with a higher chance of Down's syndrome (trisomy 21), Edwards' syndrome (trisomy 18), Patau's syndrome (trisomy 13), and Turner syndrome and other sex chromosome conditions. However, many babies with an increased NT have normal chromosomes, and most babies with Down's syndrome do not have a markedly increased NT. NT is therefore combined with your age and two blood markers (PAPP-A and free β-hCG) in combined screening. NIPT gives more accurate screening for the common trisomies but does not identify every genetic condition.

Heart conditions

An increased NT is linked with heart defects even when the chromosomes are normal, and the chance rises as the NT increases. With specialist expertise, some major heart conditions can be seen at 12 to 13 weeks, and an early heart scan and a later fetal echocardiogram may be recommended.

Other genetic conditions

Occasionally, an increased NT is linked with single-gene conditions, such as Noonan syndrome and related conditions (RASopathies). Whether further genetic testing is needed depends on the size of the NT, any other scan findings and the results of the first tests.

What happens if my baby's NT is increased?

A specialist assessment usually includes a detailed review of your baby's anatomy, particularly the heart, brain and abdominal wall. Further tests may be discussed:

- **NIPT** (a blood test) gives highly accurate screening for Down's, Edwards' and Patau's syndromes, but does not detect every condition and cannot replace a diagnostic test when there is a significant scan finding.
- **Chorionic villus sampling (CVS)**, usually from 11 weeks, tests a small sample of the placenta.
- **Amniocentesis**, usually from 15 weeks, tests a sample of the fluid around your baby.

Diagnostic tests can include a chromosome analysis or microarray and, in some cases, further genetic testing. We will discuss the benefits, limitations and risks of each option with you before you decide.

What if the chromosome results are normal?

A normal result is reassuring. Depending on the size of the NT, a detailed scan in the early second trimester and a specialist heart scan may still be recommended, and the 20-week scan remains important. When the NT returns to the expected range, and your baby's anatomy, heart and genetic results are reassuring, the outlook is usually very good.

The extra fluid often becomes less obvious as pregnancy progresses. This is reassuring, but it does not rule out a condition on its own, so the recommended follow-up should still go ahead. Equally, a normal NT is reassuring but cannot guarantee that a baby has no condition, which is why the NT is only one part of the 12-week scan, alongside screening tests and the 20-week scan.

Book an appointment

Our consultant-led 12-week scan includes a detailed check of your baby's NT and early anatomy, with your results explained on the day.

Call: 01732 647072

WhatsApp: 07572 929888

Email: appointments@thepregnancyclinic.com

Online: thepregnancyclinic.com

Our nuchal scan

Our website

Urgent concerns: we provide planned appointments only. If you have pain, bleeding or any other urgent concern, please contact your local NHS maternity unit, early pregnancy unit or NHS 111, or call 999 in an emergency.

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This leaflet gives general information and does not replace individual medical advice. Please ask us if you would like it in another format.

References

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YOUR NOTES AND QUESTIONS