Länsi-Uudenmaan hyvinvointialue
Västra Nylands välfärdsområde

Client instructions 11 February 2026

NIPT and fetal screening ultrasound examinations

Expectant parents are offered **a voluntary, free-of-charge** NIPT test (for those who are eligible and wish to have it) and two fetal screening ultrasound examinations performed by a midwife at HUS Prenatal screening unit:

- Early pregnancy screening ultrasound at 11+0 to 13+6 weeks of pregnancy (aiming for 12+0 to 13+3), and

- Anatomy (structural) ultrasound to assess fetal structural abnormalities at 19–21 weeks, or after 24+0 weeks (aiming for 20+0 to 21+3). NIPT screening is offered instead of combined first-trimester screening.

What is screened, and why

About 3% of newborns have a structural abnormality. Common underlying causes include fetal chromosomal abnormalities—most often an abnormal number of chromosomes. A trisomy means that a person has three copies of a particular chromosome instead of the usual two. The most common trisomy is trisomy 21 (Down syndrome), which is the most common cause of congenital intellectual disability. The rarer trisomy 13 and trisomy 18 usually involve severe congenital structural abnormalities and often result in death during pregnancy or soon after birth.

NIPT (non-invasive prenatal testing) is a screening method that can assess the risk of certain fetal chromosomal abnormalities more accurately than combined screening, using a maternal blood sample. The test analyses placental cell-free DNA (cffDNA) circulating in the mother’s blood. Currently used tests typically assess the number of copies of chromosomes 21, 18, and 13. The test does not provide information on other inherited conditions or on fetal sex. Although NIPT is an accurate screening test, any abnormal result can be confirmed—if the expectant person so wishes—by an invasive diagnostic procedure (amniocentesis) before decisions about continuing the pregnancy are made.

Suitability for NIPT is assessed at the maternity and child health clinic and at the Prenatal screening unit. Certain factors affect the reliability of NIPT. These include:

Assessed by a nurse at the maternity & child health clinic	Assessed by a midwife at the Prenatal screening unit
• The expectant parent has cancer (ongoing treatment or follow-up), has had an organ transplant, or has a chromosomal abnormality involving chromosome 13, 18 or 21 (NIPT is not suitable). • There is a known increased risk of a hereditary condition or chromosomal abnormality in the fetus, or a fetal structural abnormality was detected in a previous pregnancy (the Prenatal diagnostics unit will be consulted on whether other testing methods should be considered first).	• An abnormal ultrasound finding (a structural abnormality or increased nuchal translucency > 3.5 mm) → referral to the Prenatal diagnostics unit; other testing methods may be considered first. • Vanishing twin (the pregnancy started as a twin pregnancy, but one fetus miscarried early in pregnancy) → NIPT is not suitable. In twin pregnancies, whether the placentas are separate (NIPT can be used, but in non-identical twins the result is slightly less reliable, and interpreting an abnormal result may be more challenging).

If NIPT is suitable for you, a blood sample will be taken after the first screening ultrasound. The sample is analysed using the Vanadis NIPT method to assess the risk of three common chromosomal abnormalities (trisomy 21, 18 and 13).

The NIPT sample is taken at a HUS laboratory (any HUS laboratory) only after the first screening ultrasound. We recommend having the sample taken as soon as possible after the ultrasound, and no later than four weeks after the examination.

If NIPT is suitable for you, you should also have the other early pregnancy blood tests taken at a HUS laboratory (any HUS laboratory) immediately after your first maternity and child clinic visit.

If NIPT is not suitable for you, the maternity and child clinic will offer combined screening. In that case, a blood sample will be taken at a HUSLAB sampling point (any HUS laboratory) before the first screening ultrasound, at 10+0 to 10+6 weeks of pregnancy. Your other early pregnancy blood tests will be taken at the same time.

Test results

A normal result from NIPT (or, alternatively, combined screening) will be sent to you by letter within approximately one month. If the result is abnormal, you will be contacted directly by the Prenatal screening unit at the Women's Hospital to discuss possible further examinations.

1. Early pregnancy ultrasound and/or screening for chromosomal abnormalities

The early pregnancy ultrasound is performed by a specially trained midwife at 11+0 to 13+6 weeks (aiming for 12+0 to 13+3) either transvaginally or through the abdominal wall. The examination determines the number of fetuses and estimates gestational age more accurately than dating based on the last menstrual period alone. Nuchal translucency can also be measured, and fetal structures can be assessed in outline. Increased nuchal translucency may indicate an elevated risk of a chromosomal abnormality or a structural abnormality. Major and severe structural abnormalities may also be visible at this stage. If increased nuchal translucency or a structural abnormality is detected, you will be given information and, when necessary, follow-up examinations will be arranged.

2. Anatomy ultrasound

The anatomy ultrasound is performed by a specially trained midwife through the abdominal wall at 19–21 weeks (aiming for 20+0 to 21+3). This examination can identify around three quarters of significant fetal structural abnormalities. If an abnormality is suspected, you will be referred for further assessment. The anatomy scan can also be performed later, at 24–26 weeks. However, at that stage, termination of pregnancy is no longer possible, even if a severe structural abnormality is diagnosed.