FUTURE HEALTH
BIOBANK

VISION

Non Invasive Prenatal Testing

A safe, non-invasive alternative to amniocentesis or chorionic villus sampling

- **Up to 24 chromosomes screened**
- **Test from 10 weeks of pregnancy**
- **Gender identity from 10 weeks of pregnancy**
- **Single maternal blood draw**

Diagnostics

Brochure

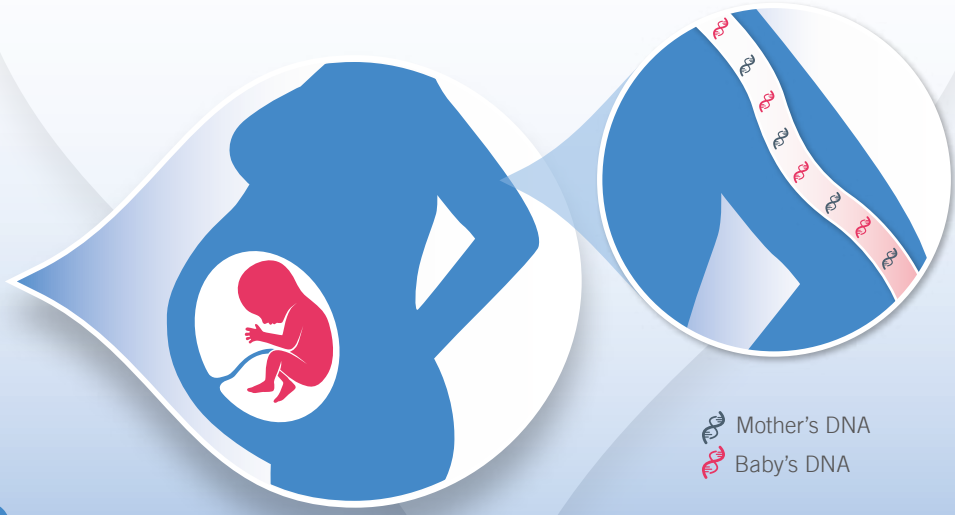
The Vision Prenatal Test

We are passionate about helping you prepare for your child's future health, which is why we offer our Vision service; a non-invasive prenatal test for common genetic abnormalities.

Vision is a highly sensitive prenatal test that can be carried out as early as 10 weeks into pregnancy, using just one simple blood draw. Vision checks the baby's DNA that circulates in the mother's blood during pregnancy, measuring the number of copies present for certain chromosomes. An abnormal number of these chromosomes can indicate the presence of certain genetic conditions, including:

- Down's syndrome; trisomy 21
- Edwards' syndrome; trisomy 18
- Patau's syndrome; trisomy 13
- Turner syndrome (Monosomy X)
- Triple X (XXX)
- Klinefelter syndrome (XXY)
- Jacob's syndrome (XYY)

Vision uses **VeriSeq by Illumina** technology, (an automated and validated workflow including CE-IVD marked sample prep and assay software), from the world's leading DNA sequencing company.



The Vision prenatal test

To give parents the greatest insight into their child's future health, several different Vision packages are available:

Services	Vision	Vision +	Vision Total
Chromosomal pairs	4	6	23
Microdeletion syndromes	0	6	9
Sex chromosomes	✔	✔	✔
Gender identification	✔	✔	✔

VISION

- Chromosomal pairs 13, 18, 21
- Sex chromosomes

VISION | +

- Chromosomal pairs 9, 13, 16, 18, 21
- Sex chromosomes
- 6 microdeletion syndromes

VISION | TOTAL

- All 23 chromosomal pairs
- Sex chromosomes
- 9 microdeletion syndromes

Vision: Conditions identified

VISION

- Chromosomal pairs 13, 18, 21
- Sex chromosomes

Trisomy 13 - **Patau's syndrome** is a genetic condition that affects around 1 in 5000 births. Babies afflicted with this condition will experience severe physical and psychological difficulties. Unfortunately, due to the extreme nature of this condition many babies diagnosed with Patau's syndrome will be lost during pregnancy[5].

Trisomy 18 - **Edwards' syndrome** is a serious genetic condition affecting 1 in 6,000 live births and can lead to miscarriages or stillborn births. Babies that are affected by this condition are often slow to develop and will experience severe medical problems. Sadly, if carried to full term, there is a low chance that the baby will survive longer than a year[3].

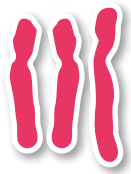
Trisomy 21 - **Down's syndrome** affects 1 in 1,000 babies and is a genetic disorder which can cause specific learning difficulties and physical differences. Every child diagnosed with the condition will have slightly different characteristics and difficulties, however, all will be affected to some degree by psychological/physical differences[2].

Vision +: Conditions identified

VISION | +

- Chromosomal pairs 9, 13, 16, 18, 21
- Sex chromosomes
- 6 microdeletion syndromes

As well as the conditions screened for by Vision, Vision+ also screens for:



Trisomy 9 - This rare and severe abnormality causes spontaneous miscarriage in most pregnancies in which it occurs, with sadly few surviving past the first trimester[11]. Babies born with mosaic trisomy 9, where only some of the cells have trisomy[8] also demonstrate malformation, as well as mental deficiency[13].

Trisomy 16 - Trisomy 16 is the most common chromosomal trisomy for autosomes[1] and occurs in approximately 1% of all pregnancies[14]. In the majority of cases of full trisomy 16 (where the trisomy occurs in all of the body's cells), this aneuploidy results in spontaneous miscarriage during the first trimester[1] and has been shown to account for 12% of chromosomally abnormal miscarriages.

Microdeletion syndromes screened for:

Microdeletion syndrome	Incidence	Symptoms Include:
DiGeorge syndrome	1 in 4,000	Learning problems, congenital heart defects, palatal abnormalities
1p36 deletion syndrome	1 in 4,000 to 1 in 10,000	Characteristic craniofacial features, intellectual disability, seizures, brain and heart defects
Angelman syndrome	1 in 12,000	Intellectual disability, speech impairment, seizures
Prader-Willi syndrome	1 in 10,000 to 1 in 25,000	Hypotonia, morbid obesity, delayed motor and language skills, intellectual disability, hypogonadism
Cri du Chat syndrome	1 in 20,000 to 1 in 50,000	Intellectual disability, speech delay, cat-like cry
Wolf-Hirschhorn syndrome	1 in 50,000	Growth deficiency, hypotonia, craniofacial features, intellectual disability, heart and brain abnormalties

Information provided by Eurofins Biomnis UK

Vision Total: Conditions identified

VISION | TOTAL

- All 23 chromosomal pairs
- Sex chromosomes
- 9 microdeletion syndromes

Vision Total screens for trisomy at any chromosomal location for all 23 pairs:

For further information on each of the conditions screened for, please visit our website.

Vision Total: Conditions identified

VISION | **TOTAL**

In addition to the microdeletion syndromes screened for in Vision+, Vision Total also screens for the following syndromes:

Microdeletion syndrome	Incidence	Symptoms Include:
Jacobsen syndrome	1 in 100,000	Bleeding disorder (Paris-Trousseau syndrome), heart defects, distinctive facial features (e.g. macrocephaly, trigonocephaly, small lower jaw and small low set ears), learning difficulties, delayed development of motor skills, cognitive impairment, impaired communication skills.
Langer-Giedion syndrome (also known as Trichorhinophalangeal syndrome (TRPS) type II)[7]	Less than 1 in 100,000	Short stature, thin upper lip, small and abnormal number of teeth, sparse scalp hair, malformed bones and joints, intellectual disability, osteochondromas, broad nose[12].
Smith-Magenis syndrome	1 in 15,000 - 1 in 25,000	Delayed language skills, delayed speech, intellectual disability, sleep disturbances, behavioural problems, scoliosis, dental abnormalities, distinctive facial features, vision problems, reduced sensitivity to pain/temperature, ear abnormalities.

Information provided by Eurofins Biomnis UK

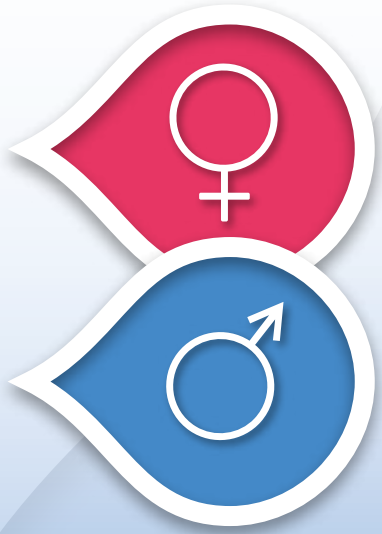
Gender identification

From as early as 10 weeks into a pregnancy, Vision can detect whether the baby is likely to be a boy or a girl.

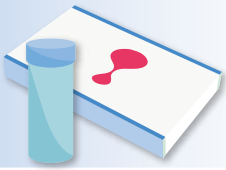
This information is not normally disclosed until five months into the pregnancy and is often not guaranteed to be an accurate result, so surprises are still possible.

This information is available with all packages, but will need to be requested on the patient consent form prior to the blood draw, as not all parents wish to receive this information in advance of the delivery.

Sex chromosome aneuploidy and gender is only available for singleton pregnancies, however Y-chromosome detection can be performed for twin pregnancies to determine if at least one of the babies is likely to be a boy.



Vision: step by step guide

1. 

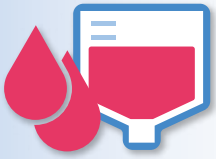
   Order your chosen Vision test from Future Health

2. 

   We'll assign you a local private midwife to carry out the test

3. 

   Your private midwife will get in touch to arrange a home visit

4. 

   The blood draw and antenatal appointment will take place in the comfort of your own home

5. 

   The sample will be returned to our laboratory for processing

6. 

   Results will be returned to your midwife within 5-7 working days from receipt at the laboratory

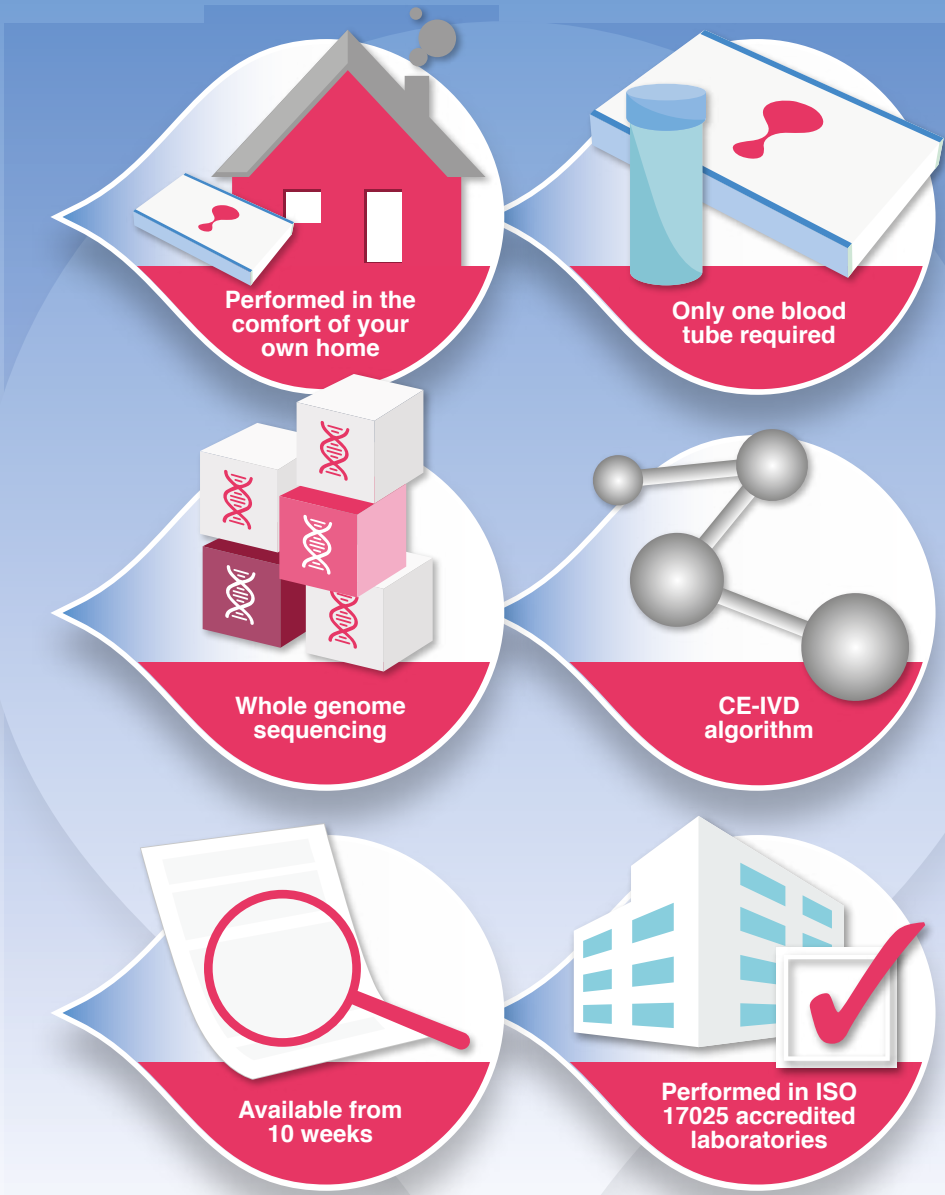
7. 

   Your midwife will get in touch with you to discuss your test results

Why choose Vision

Vision is a safe, non-invasive alternative to amniocentesis or chorionic villus sampling, subsequently removing the associated risk of miscarriage.

Other advantages of Vision include:



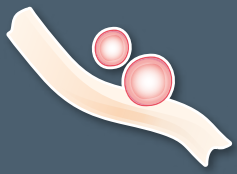
Our other services

As well as offering the Vision test, Future Health also offer a cord blood stem cell banking service. Stem cells are the building blocks of life, and your baby's umbilical cord is a rich source of these precious cells. With the ability to regenerate and protect the body from within, stem cells are able to develop into many different types of blood and tissue cells.

Stem cell banking is the process of collecting, processing and storing these cells for use in future stem cell therapies. To give parents the widest choice possible, several different service options are available;

Cord Blood Processing

Cord blood stem cells are used to treat blood related disorders such as Leukaemia, Anaemia, Lymphoma and Thalassemia.



Cord Tissue Processing

Cord tissue stem cells are currently in clinical trials for conditions including diabetes, heart disease and cerebral palsy.

Outlook Screening Test

Using a drop of cord blood, Outlook screens your new-born's predisposition to develop Lactose Intolerance, Coeliac Disease, Bitter Taste and Medication Induced Deafness.

StemCellCare Insurance

Included in all packages, StemCellCare provides you with a lump sum contribution of up to £75,000 towards the cost of treating almost 80 conditions.

Visit our website www.futurehealthbiobank.com, email us at custcare@fhbb.com or call us on 01159 677 707 to find out more.

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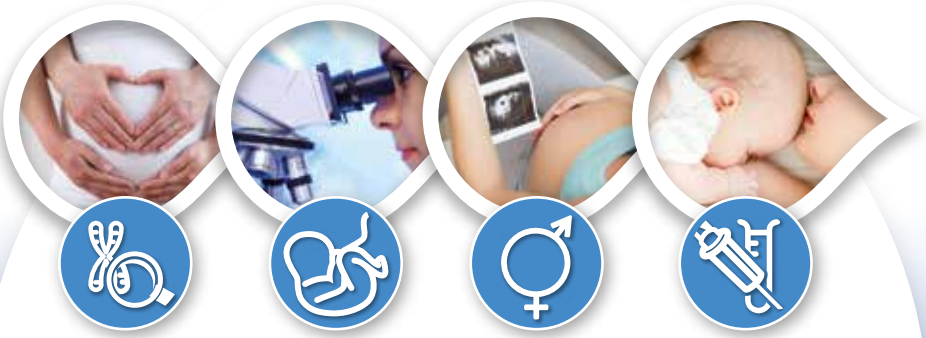

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MHRA authorisation ✓ HTA licence ✓ AABB accreditation ✓ Swissmedic licence ✓ HFEA licence ✓ GMP certification ✓ OFSP licence ✓ ISO 9001 certification ✓

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