

Stem Cell Banking and Diagnostics





A healthy future is in your hands

What are stem cells?

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.

As a source of stem cells unique to your baby, their umbilical cord may one day prove a lifesaver.

Stem cells found in umbilical cord blood are currently used to treat over 85 conditions, while those found in umbilical cord tissue are in hundreds of clinical trials for use in treatments for conditions including autism, diabetes and crohn's disease.

Why store stem cells?

Parents' top 4

There are over a million cord blood samples in private storage across the world, and every one of those parents made that decision for a different reason. Here are the most common reasons parents-to-be choose to invest in their family's future health.



Family illness & regenerative medicine

Cord blood stem cells are used today as standard therapy for more than 85 conditions, including leukaemia, anaemia and bone marrow cancers. Having a perfectly matched, easily accessible source of stem cells could prove an invaluable resource for your family.



Chance of a match

There is no guarantee a public bank will be able to source a matched cord blood sample. Cord blood banking guarantees a 100% match to your baby, a 1 in 4 chance of a match between siblings and around a 1 in 16 chance for parents.

Quick availability

Should the need for treatment ever arise, a privately stored cord blood sample can be accessed almost immediately and without any additional costs. If relying on a public bank, it can take weeks or even months for a match to be located, if at all, and the cost to access each sample is normally upwards of £25,000.

Adoption or donor ovum/sperm

It is not always possible to have access to a biologically related family member following adoption or the use of donor ovum/sperm. Cord blood banking is a unique opportunity to save these stem cells in order to guarantee a 100% match, in case treatment is ever required.

The conditions you're protecting against

A potentially life-saving decision

It's not a nice thought, but the fact is illness can happen to anyone at any time and the reality is it may also be life-threatening. The first successful cord blood stem cell transplant to treat Fanconi's Anaemia took place in 1988¹. Ever since, the list of illnesses whereby stem cells are standard therapy has grown dramatically. This includes forms of cancer such as leukaemia and neuroblastoma, as well as conditions of the blood and the immune system.

Today

Umbilical cord blood stem cells are now standard therapy for over 85 conditions, including:

- Forms of Leukaemia
- Solid Tumours, such as Neuroblastoma
- Lymphomas
- Anaemias, such as Fanconi's Anaemia
- Thalassemia and Sickle Cell Anaemia
- Blood Cancers
- Krabbe Disease
- Severe Combined Immunodeficiency (SCID)
- Hurler's Syndrome
- Bone Marrow Cancers, such as Myeloma

Tomorrow

Ground-breaking research is increasing the potential for the use of stem cells for an ever-expanding range of health issues, including:

- Alzheimer's Disease
- AIDS
- Cerebral Palsy
- Diabetes
- Autism
- Multiple Sclerosis
- Traumatic Brain Injury
- Spinal Cord Injury
- Rheumatoid Arthritis
- Cardiomyopathy
- Liver Cirrhosis
- Crohn's Disease
- Aplastic Anaemia

For a detailed list of all standard therapies using stem cells, please visit our website:

www.futurehealthbiobank.com

When I found out I was pregnant I was absolutely overjoyed. Just a few weeks later someone told us about stem cell banking and a company called Future Health. We'd never heard of stem cell banking before, but the more we thought about it, the more sense it made. How could we not do something that might one day protect our baby's health?

Jeanne, Birmingham

STANDARD PACKAGE

- Cord blood or cord tissue processing
- 2 years StemCellCare insurance

PREMIUM PACKAGE

- Cord blood processing
- Cord tissue processing
 2 years StemCellCare insurance

PREMIUM + PACKAGE

- Cord blood processing
- Cord tissue processing
- Outlook screening test
- 2 years StemCellCare insurance

To give parents the widest choice possible, several different storage packages are available. Choose from the Standard package (cord blood or cord tissue only), the Premium package (cord blood and cord tissue), or the fully comprehensive Premium+ package (cord blood, cord tissue and Outlook screening test).

PRICE PROMISE**

If you are offered a cheaper price for a comparable service elsewhere, just let us know and we promise to beat the quote by £50.

Pay from as little as £32 a month over 60 months with our 12.9% low rate finance!*

**T&C's apply, visit our website for details.

Visit our website **www.futurehealthbiobank.com**, email us at **custcare@fhbb.com** or call us on **01159 677 707** for our latest prices.

What is the Outlook screening test?

Performed using a small drop of cord blood, Outlook checks your child's predisposition to develop four common conditions;

Lactose intolerance

Lactose is the main carbohydrate found in dairy products, and is frequently hailed as a trigger for digestive problems. Lactose intolerance affects around 1 in 50 people of Northern European descent, although this figure increases substantially for other ethnic groups.

Coeliac disease

Gluten is a protein found in the grains of wheat, barley and rye, and is one of the most common foods eaten around the world. Coeliac disease is characterised as a sensitivity to gluten, and is the most common autoimmune disease with around 1 in every 200 people afflicted worldwide.

Bitter taste

Sensitivity to bitter tastes is an evolutionary phenotype that arose through natural selection, in order to prevent us from consuming toxic plants. However, it can cause a reaction to common foods such as sprouts, cabbage and broccoli.

Specific types of antibiotics (aminoglycosides) are known to cause damage to the inner parts of the ear, thus leading to partial deafness in susceptible children. In developed countries, approximately 1 in every 300 children shows severe or profound deafness at birth or during early childhood.

The science behind cord blood banking is complicated, but storing your baby's stem cells really couldn't be simpler. Here's how it works;

Step 1

We send you your collection kit well before the due date, which contains everything you need to collect the sample (make sure you take it with you to the hospital on the big day!) Phenomenal service. What a professional organization from start to finish. Wouldn't have to think twice to use them again. It's wonderful to find an organization that not only has great upfront service but also great after care customer service)

Nicki, May 2018

Step 2

After birth, your consultant (or a phlebotomist provided by us) will extract the sample, and place it back into the collection kit

Step 3

Our medical courier then collects the kit from your hospital or home, delivering it to our Laboratory in Nottingham

Once arrived, we:

Step 4

Process your sample to concentrate the number of stem cells stored, and split into multiple portions for future use

Step 5

Double check the health of the sample and count the number of stem cells extracted, to make sure it's ready and viable should it ever be needed in the future

Step 6

Your baby's sample is then cryogenically frozen in the vapour phase of liquid nitrogen, and stored in our facilities for decades to come

Step 7

Should you ever need to use your sample, we'll take care of everything and can ship it anywhere in the world, free of charge

Why choose Future Health Biobank?

One of the world's most accredited stem cell banks Proud to store more samples than all other UK banks combined

*subject to status. T&C's apply.

Very happy with the service provided to store my son's samples, given plenty of information and felt comfortable knowing I could phone anytime for further info or questions.

Darren, April 2018

■ I sincerely recommend Future Health for stem cell storage services. They are experienced, professional and the customer care team was great.

Bruno, April 2018

So easy and didn't Interrupt my labour or baby bonding as I was concerned it would. Easily done through text and kept informed each step of the way afterwards (with results and storage info). 10/10 would do again.

Hannah, May 2018

Stem Cell Care insurance

Future Health Biobank is the only UK cord blood bank to provide all new customers with StemCellCare – Future Family Insurance free for 2 years, as part of your cord blood storage package.

The policy provides a £75,000 lump sum benefit to spend where, when, and how you wish if the stored cells are required for an appropriate procedure. In addition all customers have access to a nurse support service, providing practical and emotional support, whether you make a claim or not.

For more information on levels of cover and what is included, please visit **www.stemcellcare.co.uk** or call **0800 6444 255.**

Dedicated medical courier

To make sure your sample arrives at our laboratory as safely as possible, we created our own in-house, 24-hour medical courier service to ensure the best possible care is taken when in transit.

Our average courier pick up time is under two hours from contact, and we are proud the service has received a 5 star rating from clients across the UK.

More experience than any other

Future Health Biobank are the UK's largest private stem cell bank, having stored more than 190,000 stem cell samples in our facilities from all over the world. Our experience has led to creating one of the most technologically advanced laboratories in Europe, and enables us to give your family's sample the best care possible.

The whole process was hassle free, including the sample collection at the hospital, dealing with only pleasant and accommodating professionals from the start. I would definitely recommend this company to those considering stem cell storage.

Wardley family, January 2018

Great service! Staff helpful, kits sent out quickly and organised at a time to suit. Informed of progress at each stage. Would happily use the service again. **9**

Curtis, May 2018

Global Presence

Alongside our head office laboratory in Nottingham, Future Health operate a second facility in Chatel, Switzerland, offering additional storage and a backup laboratory to the main UK site. We operate offices in around 40 countries worldwide, and have collected samples from over 75 countries to date, making us a true global leader in stem cell banking.

Terms and conditions apply, visit our website for details.

As well as being included in our Premium+ stem cell banking package, Outlook newborn screening is also available as a standalone mouth swab test, so can be undertaken at any time after birth. With newborn screening tests, your child can be screened for a range of genetic conditions to give you a clear picture of their predisposition to develop:

A newborn screening test is a simple and affordable way to gain peace of mind or - if your child is found to be at an increased/high risk of developing any of the above conditions - to prepare you for their possible medical and/or dietary requirements in the future.

How does the Outlook test work?

Outlook newborn screening is available in two different formats; as a mouth swab kit, or as part of your cord blood storage package.

CB/CT-UK-BD-pbrV5

Vision is a highly sensitive prenatal test that can be carried out as early as 10 weeks into a pregnancy, using just one simple blood draw, to check for a range of genetic abnormalities including Down's Syndrome, Edwards' Syndrome and Patau's Syndrome.

Vision uses Illumina technology from the world's leading DNA sequencing company, making it a safe alternative to amniocentesis or chorionic villus sampling; removing the associated risk of miscarriage. The test measures the number of chromosome copies in the mother's blood, and is available at several different levels:

VISION	VISION +	VISION TOTAL	VISION TOTAL +
 Chromosomal pairs 13, 18, 21 Sex chromosomes 	 Chromosomal pairs 13, 18, 21 Sex chromosomes 6 microdeletion syndromes 	 All 23 chromosomal pairs Sex chromosomes 	 All 23 chromosomal pairs Sex chromosomes 6 microdeletion syndromes

The options shown are now only available for singleton pregnancies. Twin pregnancies can only have 'Vision', screening chromosomal pairs 13, 18, 21 and with an option of Y-chromosome detection.

The Vision test process

Q: Will my birth plan have to change if I choose to store my baby's stem cells?

A: Your method of delivery will not change if you opt to store your baby's stem cells, we can still collect at a home birth, water birth or C-section. If you choose to delay the clamping of the umbilical cord and delivery of the placenta, this may impact on the volume of cord blood we can collect, but please call us to discuss your options in more detail. Rest assured, the sample collection will not interfere with the birth and you can follow your birth plan as you wish.

Q: Who will collect my baby's stem cells?

A: We will ensure that the person who collects the samples at the time of birth is fully licensed and trained in line with our governing body, The Human Tissue Authority (HTA). Future Health Biobank has an extensive list of procurers who can collect on your behalf, wherever you are in the country.

Q: How long can umbilical cord blood stem cells be stored for?

A: All storage terms offered by family banks in the UK must be evidenced. Current research has shown that cord blood stored, thawed and used after 28 years is still viable and of therapeutic value. Whilst research is still underway to determine the maximum storage period, experts strongly believe umbilical cord blood stem cells could be stored indefinitely.

Q: What if I need the sample, what happens then?

A: In the event you wish to retrieve your sample, we will liaise directly with your designated treatment centre to ensure all regulations are adhered to and the required paperwork is in place, be it for treatment here in the UK or overseas. Once everything has been finalised, we will then arrange the transportation of your sample using a dedicated, specialist medical courier, at no additional cost to you.

Q: If I donate to a public bank, will my baby's cord blood be there for me in the future?

A: It is important to understand that only a small number of samples donated to public banks are stored. Studies have shown as many as 71% of all donations do not meet the established acceptance criteria for public banks² and for the remaining 29% that do, each donation is placed onto the register anonymously. The chance of your sample being available to you or your family in the future is therefore very low.

Q: Will doctors use a person's own stem cells in treatment?

A: For environmental and non-genetic diseases; yes. It is possible to perform an autologous (using a person's own stem cells) transplant for a number of diseases such as auto-immune disorders, solid tumours, acute myeloid leukaemia and some forms of Hodgkin's lymphoma. In fact, autologous transplants are also performed to help replenish the body's bone marrow following chemotherapy treatment for non-blood related cancers.

Q: With the chance of using stem cells so small, is there any point in storing them?

A: Stem cell therapy is a very real possibility for both transplant and regenerative medicine. In 2008, it was estimated that 1 in 200 people will undergo a stem cell transplant before the age of 70³. The transplant data used in this study is now ten years old and stem cell research has continued to develop at an astonishing rate. In fact, it is now estimated that as many as 1 in 3 people will benefit from stem cell based regenerative therapies⁴. Today, cord blood stem cells alone are used in the treatment of over 85 diseases and there are over 300 clinical trials underway.

Maria, April 2018

References

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