



A CRYO-SAVE PARTNER

HTA Licence No. 22520

The Best Start in Life

Your baby's umbilical cord and the cord blood contain life saving stem cells.

With Cells Limited you can save them for a life time at Cryo-Save labs, Europe's leading stem cell bank; thus giving your offspring the best start in life and peace of mind for the future.





Our Profile

Cells Limited was established in the UK in February 2004 for providing storage of stem cells derived from umbilical cord blood under its brand name 'babycells'. After five successful years of trading as one of the partners of the Cryo-Save Group, Cells Limited has adopted the 'Cryo-Save' brand since July 2009, while continuing its longstanding partnership with the family of Europe's leading stem cell bank.

Cells Limited as the partner of Cryo-Save in the UK holds Human Tissue Authority Licence Number 22520 for procurement, distribution and/or import/export of tissues and/or cells intended for human application. Cryo-Save laboratories established in the EU member states are authorised by the local authorities to process, test, and store umbilical cord and cord blood stem cells for human application.

Cryo-Save is the leading European stem cell bank. For nearly a decade, Cryo-Save has operated a policy of responsible stem cell banking and is listed on NYSE Euronext Amsterdam. Cryo-Save supports the leading research in storing umbilical cord tissue and umbilical cord blood, not least through a number of European Parliament funded European Commission Framework research projects. Cryo-Save is currently operating in 38 countries across three continents, and as of January 2011, more than 145,000 parents have chosen Cryo-Save to store their babies' stem cells.



Stem Cells

Stem cells are the building blocks of all human cells and can form part of our biological existence from muscles, bones, nerves, blood system and organs. They have an amazing ability to create different kinds of tissues when they divide and develop. This power to produce different kind of specialised cells makes them unique for medical therapy. The salient features are as follows:

- Stem cells can develop into many of your body's tissues.
- Stem cells can be used to regenerate damaged tissues.
- Stem cells have already been used to treat many diseases including; Leukaemia, Type-1 Diabetes, Metabolic Disorder and Immune System Disorders.
- Scientists from Cryo-Save have turned stem cells from umbilical cord blood into many tissues including; Liver, Pancreas, Nerve Tissues, Bone, Cartilage etc.
- We expect the future of cell therapies to increase rapidly.
- You have a one in four chance that your stem cells will also be a match for your siblings.

Sources of Stem Cells

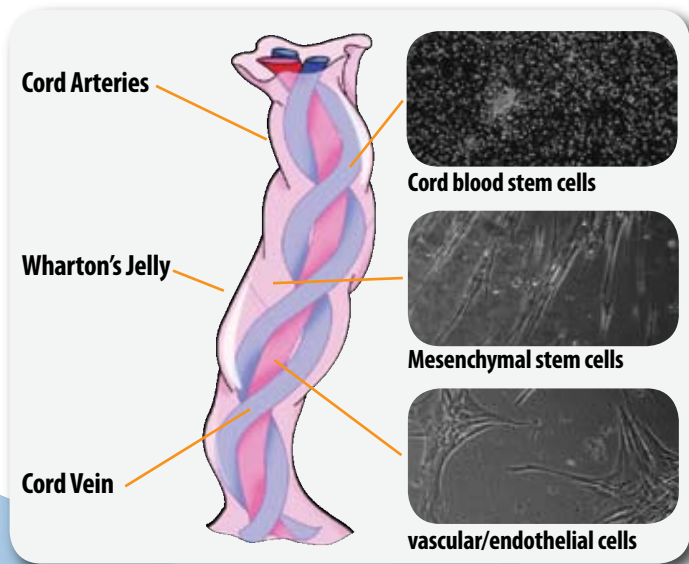
The cure of many life-threatening diseases is dependent on the transplant of stem cells, of which there are only a few sources:

- **Embryonic Stem Cells.** Embryos are the richest source of stem cells but are associated with many ethical and legal issues. Therefore, we have never involved ourselves with the embryonic stem cells.
- **Adult Stem Cells.** These are also called bone marrow and peripheral blood stem cells. It involves an invasive and painful collection procedure besides aging problems. In donor cases, one encounters the difficult matching process and risk of rejection.
- **Umbilical Cord Stem Cells.** The umbilical cord and cord blood are the rich and viable sources of stem cells and can be easily collected within a few minutes after the birth, without affecting the natural sequence of birth. The procedure is safe and without any risk to the mother or the baby.

The umbilical cord/cord blood stem cells have some inherent important advantages over the adult stem cells and these are:

- They are **young**; being only a maximum of 9 months old, and have not suffered the aging process, often divide quicker and are more viable as compared to bone marrow and other adult stem cells.
- They are **fresher**; protected by the mother's womb from many of the viruses and infections present in the open world, they are less likely to be contaminated or affected by diseases.
- They are more **naive**; they are less likely to cause complications in allogeneic transplants than adult stem cells.

For nine months the umbilical cord plays a vital role in the care of your baby's health and well-being. With Cells Limited, you can extend this care for a lifetime by storing umbilical cord as well as umbilical cord blood stem cells thus giving your offspring the best start in life and peace of mind for the future.



The umbilical cord: a rich cell source.

Why Store Umbilical Cord Blood Stem Cells?

The **umbilical cord blood** can be collected at the time of birth which is a rich source of Haematopoietic Stem Cells (HSCs).

- Umbilical cord blood stem cells being rich in HSCs are best suited for blood related diseases.
- Umbilical cord blood stem cells have already been used to treat Type-1 Diabetes, Cerebral Palsy, Immune System Defects, and are in clinical trials to treat many new diseases every year.
- Umbilical cord blood stem cells have already treated more than 20,000 patients alone.
- Collection of umbilical cord blood is easy, painless and with no risk to mother and baby.

Why Store Umbilical Cord?

The tissue of the umbilical cord which doctors call 'Wharton's Jelly' is a rich source of Mesenchymal Stem Cells (MSCs); a cell type which is common in bone marrow but hard to find in cord blood.

- MSCs have great potential in the field of regenerative medicine because they can differentiate from tissue such as bone, cartilage, tendon or muscle.
- MSCs have been used to make bone, cartilage, nerve tissues, pancreatic and liver.
- MSCs have been used to treat many diseases including heart problems, bowel disease, bone, cartilage and immune system defects.
- Collection of umbilical cord tissue is easy, painless and with no risk to mother and baby.
- Cyro-Save lab is also used for umbilical cord tissue; their storage procedure is to freeze the whole length of umbilical cord without cell separation.

Our Cryopreservation Options

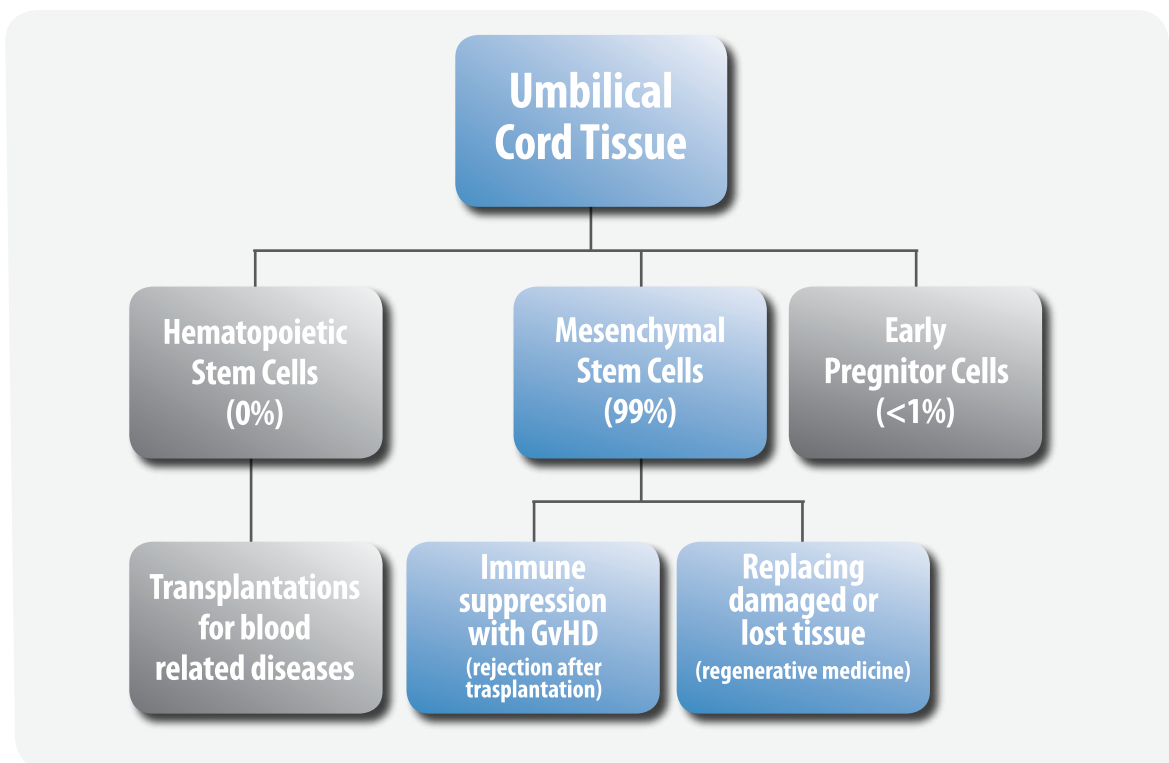
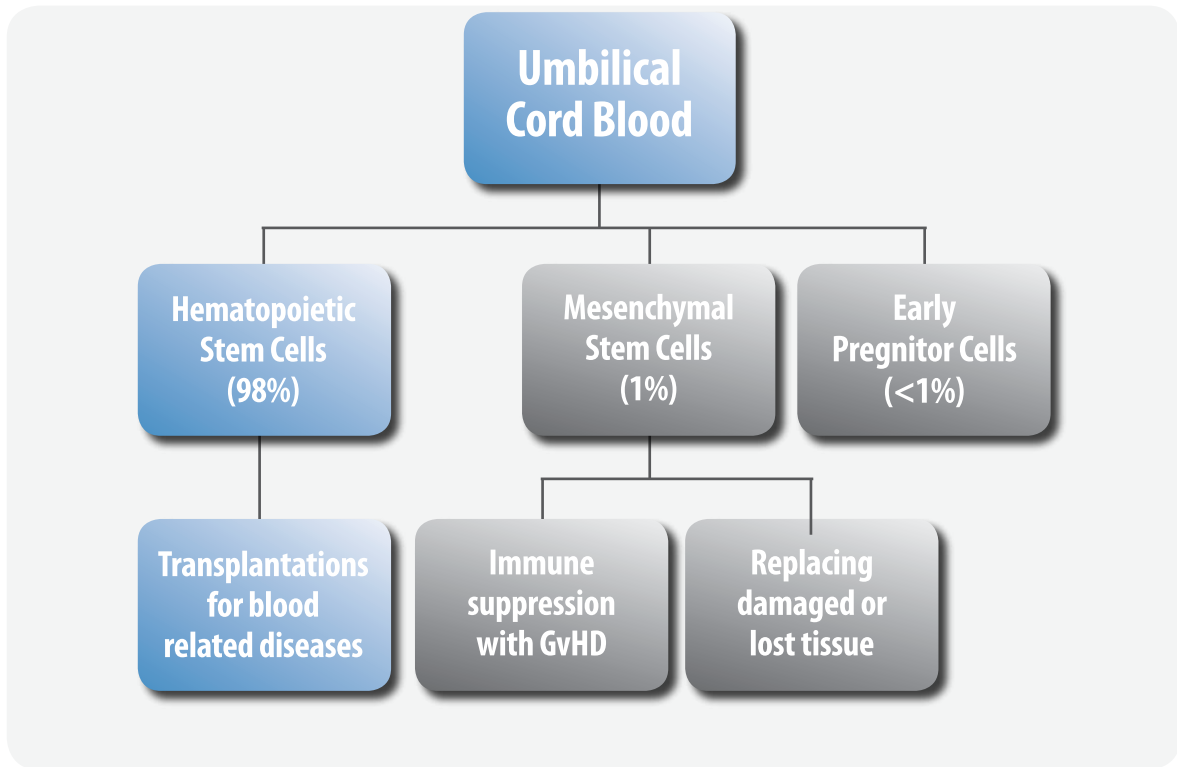
We at Cryo-Save Lab process, test, cryopreserve and store umbilical cord and umbilical cord blood stem cells. Our services include the following two options:

- 1 **CryoCord:** Cryopreserved stem cells extracted from umbilical cord blood.
- 2 **CryoCord+:** Cryopreserved umbilical cord and cryopreserved stem cells extracted from umbilical cord blood.

By choosing the second option, the possibility of total failure of stem cells sample is minimal.

Umbilical Cord Blood vs Umbilical Cord Tissue

Cord contains many more Mesenchymal stem cells.



Both options available now

Scientific Evolution

The discovery of stem cells was one of the greatest achievements of modern medicine indeed the scientific evolution. The amazing speed of research and clinical trials using umbilical cord stem cells has led to big hopes because of the unimaginable possibilities of diseases being treated. Many of these treatments use the patient's own stem cells.

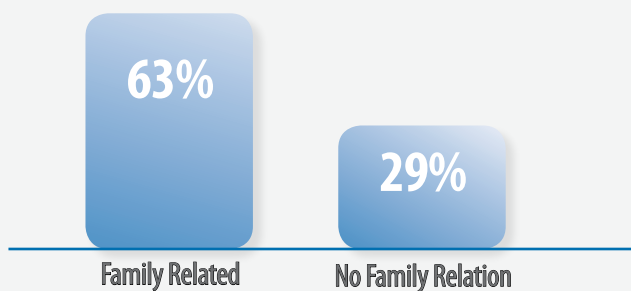
New scientific discoveries have shown that umbilical cord blood- derived stem cells can even be developed into liver, renal, neural, heart muscle and insulin producing cells. This finding potentially opens the door for these cells to be used in regenerative medicine. This promising scientific evolution is briefly depicted as below:

- 1988: Just 1 disease could be treated: Fanconi Anaemia.
- 1999: The number of treatable diseases increases from 5 to 10.
- 2009: Over 85 diseases, under the following disciplines can be treated:

- Oncologic and proliferative diseases.
- Immunodeficiency and related diseases.
- Haematological and related diseases.
- Metabolic Disorders.

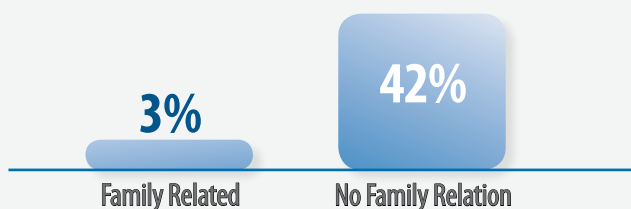
We expect the future of cell therapies to increase rapidly to provide cures for many life-threatening diseases. Keeping in view the potential of these cells in mind many parents around the world are choosing to cryopreserve their babies' stem cells.

Surviving rate after cord blood stem cell transplant

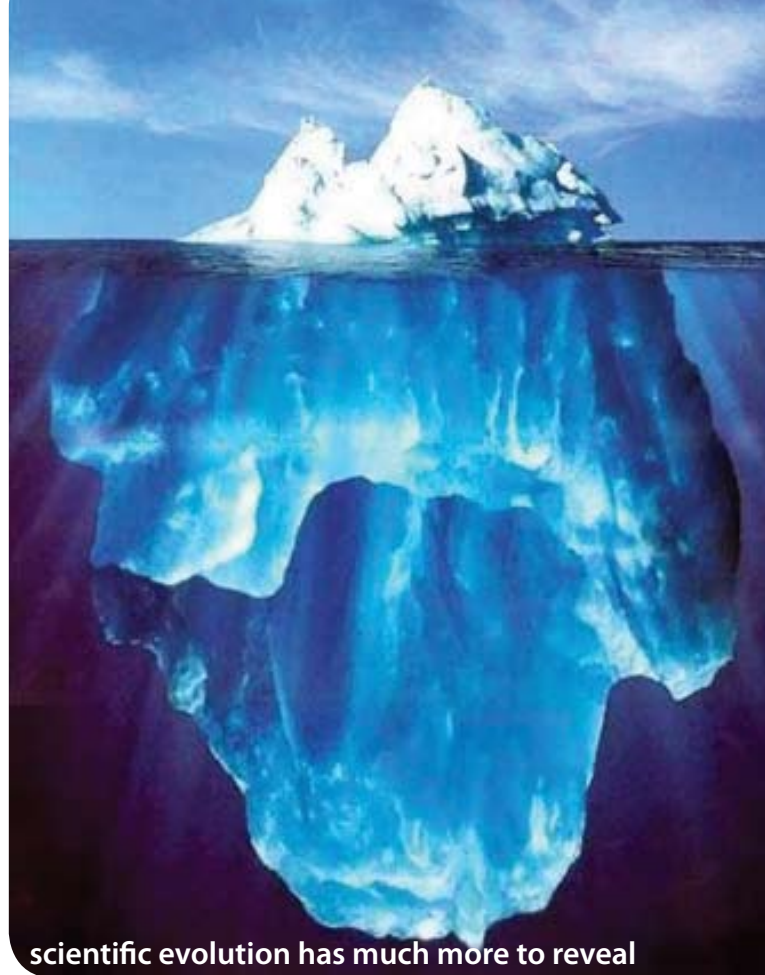


Source: E. Gluckman et al. (1997) N. Engl. J. Med

Graft versus host disease, in CBST transplants



Source: Kutzberg (1995), Wagner (1995), Laghlin (2001)



Once in a Lifetime Opportunity

Umbilical cord and cord blood can only be collected at the time of the birth of your baby. The collection procedure is safe and painless and does not affect the natural sequence of birth. The decision at the right time should give you greater peace of mind with the existing therapies and the ongoing research around the world into new applications.

Stem cells derived from the umbilical cord and cord blood have many advantages over the stem cells collected later in life. There is no risk of rejection and they are immediately available for treatment when needed. Thus unlike in the past, this **once in a lifetime opportunity** should not go to waste for the sake of your baby's future health.

Stem cells – too valuable not to be used

Should you decide not to save your stem cells privately, you may wish to offer them to a public stem cell bank. In this way, you could be a great help to others.

Our Procedures for Your Safety

Procurement of Umbilical Cord Blood / Cord Tissue

- On receipt of your signed consent form, we will send you our cryocord or cryocord+ kit depending upon your consented option. The package also includes maternal blood collection kit as well as clear and concise instructions to follow at every step.
- The collection of umbilical cord blood, umbilical cord tissue and maternal blood will be performed at the hospital, birth unit or at home (in case of home birth) by the authorised healthcare professional in compliance with the relevant HTA Directions.
- We would assist the parents in arranging a qualified/ authorised phlebotomist for collection of umbilical cord blood, umbilical cord tissue and maternal blood (at a separate cost), as well as ensuring that we have a third party agreement with the hospital/ obstetric consultant, in case of a private patient.
- After the birth, the packed samples will be picked up by our certified international courier service (DHL) for delivering to the designated Cryo-Save lab; where the samples will be processed, tested and eventually stored for the initial period of 25 years.

Processing, Testing and Storage of Umbilical Cord Blood Stem Cells and Umbilical Cord Tissue

- Stem cells are prepared for preservation after determining their quantity and quality using state of the art technology at our lab. The quality, quantity and cellularity verification is ensured through the following tests performed on the maternal blood and umbilical cord blood samples received in the lab:
Medical Tests include; Maternal Serology and PCR Analysis of Cord Blood.
Lab Tests include; Mononuclear Cells (MNC) Count (x 10 exp 8), Amount of CD 34+ Cells; Vitality (%) and Bacteriology.
- For the purposes of security and to ensure that your baby's stem cells are assigned individually, they will be identified using separate unique barcodes.
- The additional security of cells is ensured by operating the dual storage system. The stem cells are divided into two containers and preserved at below -180°C in the vapour phase of liquid nitrogen at two physically separated storage banks; this process is called cryopreservation.
- We store stem cells and not the whole blood, using the automated Sepax system from the Swiss company Biosafe for separation of stem cells from umbilical cord blood. This benefits the vitality of stem cells and prevents toxicity.



- We store umbilical cord blood stem cells in bags with an extra bag at the top to take a small stem cell sample for pre-transplant testing of the sample without having to unfreeze the main sample; this gives our clients a total of four parts of stem cell samples. The bag kit is sterile, functionally closed and single use.
- We also facilitate cryo-preservation of umbilical cord tissues in addition to the umbilical cord blood stem cells. The umbilical cord is rich in Mesenchymal Stem Cells that have the unique ability to help a damaged organ to regenerate, and are often found in the damaged tissues.
- Should umbilical cord blood sample not correspond to the minimum requirements, we will leave it up to the parents to decide not to freeze the sample to avoid any additional cost. This means that we do not charge processing and storage fee for a failed sample and we store borderline samples at company expense until sample is made usable in the future.
- You will receive a storage certificate approximately six weeks following the birth and the stem cells can be made available as and when required for the transplant.
- We will store your baby's stem cells initially for 25 years. After that time, your child may decide whether to continue or terminate storage.
- We assist our clients at every stage being available on call 24 hours a day 7 days a week.

Facts instead of Fiction

Since the first successful umbilical cord blood derived stem cells transplant in 1988, thousands of transplants have been effectively performed. Currently about 3,000 transplants are performed each year meaning that we can safely speak of a medical standard. But irrespective of all the successes and positive developments in this form of treatment, the topic is being discussed at many levels and is still being frequently misunderstood.

Saving Stem cells is simply not worth it.

According to today's knowledge, medical scientists believe there is a high probability that a child will use stem cells from its own umbilical cord blood later in life. It is at least 1/400- and growing.

Umbilical cord blood cannot be preserved for a long time; Stem cells from umbilical cord blood that have been properly prepared for storage may get older than we do.

All research to date suggests that cryopreserved cells have virtually unlimited viability. This means that it is likely that they can be kept deep-frozen until we need them. Cryo-Save is totally committed to cryopreservation research.

Umbilical cord blood can only be used for children.

Of course adults can also be treated with umbilical cord blood derived from stem cells; they currently make up the majority of patients. Sometimes the amount available is not sufficient and the doctor needs to use additional stem cells from a different source. As far as regenerative medicine is concerned, the amount of stem cells is less relevant. Even a small amount could be sufficient to activate the regeneration of tissue.

If umbilical cord blood is donated to a public bank, it will be returned should your child need it.

Only 30-50% of all donations are actually stored in public banks and the rest are discarded. Consequently, there is no guarantee that your own donation will be available at all. Even if it has not been destroyed, it cannot be guaranteed that it has not been given to someone else the moment your child needs it. Private storage is the only way this can be ensured.

No umbilical cord blood is needed for stem cells; in the end everyone can receive from the bone marrow.

It is true that bone marrow does contain stem cells. However, they age in the same way as the body; potentially losing both vitality and usefulness and could be affected by the same diseases as the rest of the body e.g. Type II Diabetes. In contrast, umbilical stem cells are young, fresher and relatively unaffected by diseases, thus offering more flexibility. The umbilical cord blood also contains a wider range of stem cells types than bone marrow.



Answers to provide you with more certainty

The more you read about stem cells, the more questions you might have. Here are the answers to the most frequent questions we receive – You can find more information at our website: www.cellslimited.com or contact us at 0800 11 CELLS (0800 11 23557).

Is storing umbilical cord blood painful or dangerous for my baby and me?

Collection of cord blood takes place following the birth after cutting the cord and once the baby has been removed from the sterile environment. The blood is collected from the part of the umbilical cord connected to the placenta; a painless and risk-free procedure. We always emphasize in our procedures that the health of the mother and the baby must come first.

Can my baby's stem cells be used for another family member?

In principle, if you have given your written consent for your baby's stem cells to be donated, they can be used for anyone having a direct match with your baby. You have 1 in 4 chances that your baby's stem cells will also be a match for the siblings.

Will anyone else have access to my baby's stem cells?

No, we will only release stem cells with the written consent of the parents or guardian of the baby.

Will umbilical cord blood be examined thoroughly in the lab?

When processing the cord blood, we subject it to a number of tests. We examine whether there is any infection or contamination. Afterwards, we check the vitality of the stem cells and the cell count. Only if these tests have been completed satisfactorily, we proceed to safe storage. No further tests or research will be conducted without your prior permission.

Who has access to the Lab?

Access to the lab is strictly controlled; only authorized staff are allowed to enter. For control purposes, the room is monitored round the clock.

Who will make sure that the stem cells are in place when we need them?

An accredited centre needs to inform us by telephone or in writing when you need the stem cells. However, the official release of the cells can be made to an accredited medical centre upon their explicit request. At Cryo-Save we will make sure that these are prepared for shipment free of charge and shipped within 24 hours.

What will happen to the Cells after 25 Years?

We will send you a letter and ask whether the stem cells should continue to be stored. This is why it is very important for you to keep us updated with your contact details.





Why Store with us at Cryo-Save Labs?

- Cells Limited is a Cryo-Save partner in the UK and holds HTA licence No.22520, and ISO 9001: 2008
- Cryo-Save Labs operating in EU member states comply with the local regulations.
- Propriety developed, temperature controlled kit for procurement of cord blood, cord tissue and maternal blood ensures viability of the samples at room temperature for more than 72 hours.
- Our safety protocol includes Maternal Serology on mother's venous blood and PCR on cord blood; simultaneous PCR negates the need for repeat Serology at 180 days.
- We store stem cells and not the whole blood and use the automated Sepax system from the Swiss company Biosafe for removal and separation of stem cells from umbilical cord blood. This benefits the vitality of stem cells and prevents toxicity.
- Security of stem cells ensured by operating dual storage system at two separate locations; as a result, the risk of destruction of entire volume is negligible.
- We store umbilical cord blood stem cells in bags with an extra bag at the top to take a small stem cell sample for pre-transplant testing without having to unfreeze the main sample; this gives our clients a total of four parts of stem cell samples. The bag kit is sterile, functionally closed and single-use.
- We also store cord tissue samples in two different banks.
- Greater peace of mind with 100% of sample reserved for your baby and the option of twice use possible.
- No processing and storage fee for a failed sample; we store borderline samples at company expense until sample is made usable in the future.
- Cryo-Save is the leading stem cells bank and operating in 38 countries across three continents and is listed on NYSE Euronext Amsterdam.
- As of January 2011, more than 145,000 parents have chosen Cryo-Save Group to protect their babies' future health.
- As of December 2009, Cryo-Save have released 10 cord blood samples for medical therapies.
- We have more scientific and medical staff than any other stem cell bank in the world and work with the leading stem cell experts in regenerative medicine.
- Our research and development programme means that your stem cells will be stored to the best possible quality now and in the future.
- There is no withdrawal fee for sample required for the transplant within Europe.
- We are available to you on phone 24 hours a day, 7 days a week.

Order Form

Please complete this form and send it to our office with payment.

Mother

Last Name:

First Name:

Address:

Postcode: Mobile:

Telephone:

Email:

Father

Last Name:

First Name:

Address:

Postcode: Mobile:

Telephone:

Email:

Other Details

Hospital:

Consultant:

Due DOB:

Consented Option Cryocord Cryocord+

Payment

Cheque: Cheque for Subscription Fee made payable to CELLS LIMITED

Bank Transfer: Sort Code: 20-37-16 Account Number: 50082317

Credit Card Please call customer services

Signed:

Date:



A CRYO-SAVE PARTNER

**For further information please
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Website: www.cellslimited.com

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- 8 <http://clinicaltrials.gov/ct2/show/NCT00744692>



Europe's Leading Stem Cell Bank