

Stemo

Protect Your Family's Future www.stemology.co.uk

# Stem Cell Banking Umbilical Cord

**Only for Expecting Parents** 



# Introduction to Stemology

Imagine you could replace any cells in your body that are diseased with 100% healthy cells.

Imagine re-building your immune system or even creating new organs to replace damaged ones.

Did you know your imagination is soon becoming reality?

Stem cell therapy has already been used around the globe to successfully treat more than 85 diseases including:

- Cancer
- Leukaemia
- Anaemia
- Thalassaemia and
- Sickle-Cell Disease
- Severe Combined Immunodeficiency

In the UK in 2012, more than 440 people died from cancer every day, that's more than one person every four minutes Stemology provides information on stem cell banking to expecting couples in the UK. Preserved stem cells can be used to treat children and adults with lifethreatening illnesses. We inform you on the entire process and provide you with your options at every step of the way.

This service is becoming increasingly popular in the UK; following other developed countries where it is almost common practice. For example 1 in 4 children in Singapore and approximately 1 in 14 children in the USA store their cells each year.

Umbillical cord stem cells can only be collected at the time of birth. There are only a few minutes after the cord is clamped to collect your baby's allimportant stem cells.

> There are an estimated 30,000 children with cerebral palsy in the UK with 1,800 more diagnosed every year



#### What are Stem Cells?

- Stem cells create the entire human body: your blood, your bones & all your organs
- They are used to cure serious blood,



# Storing Stem Cells





Mesenchymal (Cord Tissue) Stem Cells

100% Match

to your child

Unlike any other treatment

treatments give a 100% match

#### **Treat Potential Defects**

- Cancer
- Brain Tumour • Leukaemia
- Sickle Cell
- Thalassaemia

#### **Umbilical Cord Stem Cells**

- Your Umbilical Cord contains one of the richest sources of blood & tissue stem cells
- Until now, parents in the UK have been throwing away umbilical cords containing these invaluable, life saving stem cells

#### Why Store?

- Cancer, Sickle Cell Disease, Thalassaemia, Anaemia, Lymphoma & Leukaemia are amongst the conditions **successfully** treated with stored cord blood stem cells
- Freezing your stem cells **ensures** that your child has immediate access to them should they contract an illness in later life



#### **Your One Chance**

• If you do not store your umbilical cord stem cells at birth, you <u>cannot</u> do it later. The cord blood & tissue stem cells are unusable if not collected within minutes of clamping the cord

Your stem cells are a 100% match to your child and could also be a 100% match for other family members



#### **Umbilical Cord**

#### **Parents, Siblings & Relatives**

Stored Stem Cells could also treat other family members with a great possibility of a 100% match

#### **NHS Approved**

Umbilical Cord Cells are routinely used by the NHS for Treatment

## Stem Cell Case Studies





#### Chloe, 5

Condition :Cerebral PalsyDiagnosed at:12 Months old

At 12 Months, Chloe was unable to crawl or speak and, after a CT Scan, she was diagnosed with Cerebral Palsy

Her Parents thought there was no cure

- Their family Doctor told them that matching Stem Cells
  could provide a cure for Chloe
- Thankfully, Chloe's parents had stored her cord blood at birth and she was treated quickly
- The Cord Blood stem cells cured Chloe's Cerebral Palsy and she is now living the life of a healthy 5 year old girl

Brother

Mother / Father

**Grandparents** 

100% Cell Match

Chloe's stem cells were used to treat her Cerebral Palsy but if she had not been diagnosed with Cerebral Palsy and was healthy, her stem cells could have been used to treat her siblings, parents or grandparents with a great possibility of being a 100% match

Upon successful storage you'll be sent a certificate and the samples will be stored for 25 years



#### Brother 100% Cell Match



#### Joe, 8

Condition:Sickle-Cell AnaemiaDiagnosed at:8 Months old

- Joe was diagnosed with Sickle Cell Anaemia very early on in life. His condition deteriorated quickly and at 8 months he could not be held or even touched without being in severe pain
- The family Doctor advised Joe's parents that a Stem Cell transplant would be his only hope of long-term survival
- Being from an ethnic background the chance of finding a match was dramatically reduced and Joe's parents could not find a matching donor from the public register
- Thankfully, Joe's mother became pregnant with his brother
- Joe's brother's cells were a 100% match to Joe and the cells were infused into his body, saving his life

Joe's newborn brother's stem cells were a perfect match for him and were easily infused to treate his Sickle Cell disease. He is now thriving and living a normal life



#### Baylor, 7

Condition:Acute Myelogenous Leukemia (AML)Diagnosed at:7 Years old

- Unfortunately Baylor's parents did not know about cord blood banking when he was born and so could not store his cells
- Aged 7, Baylor is now battling AML, a cancer of the blood
- Baylor has had chemotherapy but still requires further treatment using stem cells
- Baylor is currently awaiting a public bone marrow or cord blood transplant in order to save his life





# What can Stem Cells Treat?



Just some diseases that Haematopoietic (Cord Blood) stem cells have been used to treat:

# Cord Blood and Tissue Stem Cells

Storing your baby's stem cells at the time of birth is an amazing opportunity to protect your family against serious illness or disease. Stored stem cells can be transplanted at NHS facilities in the UK and private clinics across the world.

Umbilical Cords contain two types of stem cells:

Cord Blood stem cells - which can create blood cells (HSCs) and Cord Tissue stem cells - which can create tissue, skin, bone and organ cells (MSCs)

> Cord Blood Stem Cells transform into red blood cells, white blood cells and platelets and can cure cancers and blood disorders such as leukaemia



The first transplant using umbilical cord blood stem cells was in 1988. They successfully treated a young boy suffering from Fanconi's Anaemia. The cord blood was obtained from his new born sister and the transplant was a complete success. Since then, over 30,000 successful transplants have taken place worldwide

> Cord Tissue Stem Cells transform into bone, skin, tissue, nerve, muscle, heart and other organ cells and are the key to future regenerative medicines

Freezing your newborn's stem cells will not harm them at all and could save their life







### What we do

Storing a stem cell sample could save your child's life. We understand this and ensure that all the banks we

recommend only use the best methods to keep your cells safe



## What are Your Options?

#### **Private Storage**

Private Storage charges a fee to store your cells for your family's use only. You will always own the cells and can request them to be transported to a transplant facility at any time

Private Storage can be organised in 99% of Hospitals and Birth Centres in the UK

As you have stored cells that are a 100% match for your child, these cells can be transported to a suitable facility within 24 hours of being requested

#### Public Donation

Public Donation is free of charge and your donation will be used for research or added to the public donor register. Your cells are owned by the NHS or ANT and you will not have any priority or choice over their use

Public Donation is available at 10 Hospitals in the UK

As there is no guarantee you will find a matching donor the timescale for treatment could be unlimited or just not possible. If a match is found, transplants can occur within a matter of weeks

#### Discard as Medical Waste

If you are unable to donate or store privately then your stem cells will be discarded as medical waste. We see this as a great loss but it is, unfortunately, unavoidable in some circumstances

Currently in the UK, 90% of umbilical cords are discarded as medical waste.

The more stem cells that are discarded, the more likely you will not find a match when it's needed. If you are from a mixed heritage background it is especially important you store or donate your cells when possible

- Unbiased information We are not a storage facility and our campaign simply provides information to expecting couples in the UK
- Exclusive benefits and discounts we have secured special discounts and offer vouchers for any couples looking to store privately
- All the companies we recommend are regulated by the Human Tissue Authority and we have personally inspected their facilities and methods
- Cancer incidence rates in Great Britain have risen by 23% in males and by 43% in females since the mid-1970s

- Free Doctor Consultations. Through our pregnancy events we give parents the opportunity to ask our Doctor any questions they have
- Get information on both Public
  Donation and Private Storage We are one of the only UK based sources of this information
- We advise you on the best practices for processing and storage - and also which facilities use them

Myeloma incidence rates have increased by 11% over the last decade

Join the 1000's of women that bank their stem cells today

# Commonly asked questions

#### Q: How long can my cells be stored for?

A: Banks offer plans that enable you to pay up front or in installments for 25 years storage.

Many experts believe that your baby's stem cells will be viable indefinitely and you will be offered additional storage plans after 25 years if you have not used the cells

#### Q: How are the cells used in the future?

A: A stem cell transplant is the infusion of healthy stem cells into your body. Cord Blood transplants can help your body make enough healthy white blood cells, red blood cells and platelets. They can treat life-threatening infections and diseases such as Leukaemia, Anaemia Sickle Cell and SCID. Stem cell transplants are used to treat people whose own cells have been damaged by disease or through aggresive treatments such as chemotherapy.

### Q: What are my options in regard to my umbilical cord?

A: You have 3 choices when deciding what to do with your umbilical cord:

1. Store it privately - keping the cells for your family

2. Donate it to a public bank - where it will be used for medical research or to help other people around the world suffering from a treatable condition

3. Throw it away as medical waste - losing the stem cells forever

### Q: Will collecting my cord blood harm me or my baby?

A: Most definitely not. Collecting cord blood is risk-free. After the cord is clamped your midwife will hand it to the attending professional phlebotomist who will be waiting outside the delivery room. Your midwife or doctor do not need to get involved and so can keep their attention on you and your new-born baby at all times.

#### Q: Who collects the samples?

A: The collection will be performed by a trained and licensed phlebotomist. Once assigned, your phlebotomist will call you for an initial consultation. You will then have contact details for your assigned phlebotomist and a backup phlebotomist.

### Q: I want to Delay Cord Clamping, how does this affect collection?

A: Delayed Cord Clamping is compatible with Cord Blood Collection and many of our clients choose to do both together. All of partners' phlebotomists are well aware of the collection procedure in conjunction with Delayed Cord Clamping as well as other birth options.

We usually recommend delaying cord claping for any time upto 5 minutes as this will not affect the amount of blood which can be collected.

You can organise collection for waterbirths, hypnobirths, natural and c-section births. Cells can be successfully collected from over 95% of birthing scenarios.

- Q: How much blood and how many stem cells does a typical umbilical cord hold?
- A: An umbilical cord holds approximately 200ml of blood and can contain millions of stem cells. Generally, a higher volume blood collected equates to a higher number of stem cells in the sample, but this is not always the case. Most banks have a minimum cell count which they will store. If your cell count is lower than this, it is probably not worth storing your cells.

#### Q: How are my stem cells collected?

A: After delivery of the placenta and clamping of the cord, your midwife will pass the cord onto your dedicated phlebotomist. Your phlebotomist will then drain the blood from the cord using a gravity bag before removing a section of the cord tissue sealing both samples.

### Q: What do I do when I need to access my sample?

A: The cells collected by private banks belong to you and so you can access them at any time.

> If you have donated your cells you will not be able to access them. You will need to go to a NHS facility where they will find you a suitable donor.

### Q: If I donate to a public bank will I have priority to my stem cells?

A: Unfortunately not. Storing with a public bank means your stem cells will be most likely used for medical research or to treat someone else. Public banking will not give you or your family any priority to your stored cells.

#### Q: What if I am expecting twins?

A: If you're expecting twins you won't be able to donate your stem cells but you can get some great discounts on private storage. Call us for more info.

#### Q: How much does this service cost?

A: Prices depend on the service you choose.

You can store cord blood and tissue or can collect each one independently. Price also depends on whether you require a phlebotomist service.

The most you will ever need to pay will be £2550. which will include a phlebotomy service, VAT, worldwide transportation, testing and all the processing and storage costs.

#### Q: Do you offer payment plans?

A: At Stemology we want banking services to be within the reach of everyone. Banks we work with offer various payment plans starting from as little as £90 per month.

#### Q: Why is cord blood processed?

A: Processing Cord Blood removes dead cell debris and also removes red blood cells. In short, it makes your sample more viable for transplant; safer to freeze and easily available to family members without worrying about blood types. The majority of private banks, the NHS and Anthony Nolan all use this method.

### Q: I've heard that there is little chance of using my stem cells in the future. Is this true?

A: Absolutely not, recent studies show that the chance of needing a stem cell transplant is now 1 in 200 and, on average, 1 in 3 people will benefit from regenerative therapy in their lifetime. These facts, coupled with the clinical trials underway show a promising future for the uses of your stem cells.

For general enquiries, more information, or for any other enquiries please contact us on:

Telephone020 70Emailinfo@Onlinewww.s

020 7096 0747 info@stemology.co.uk www.stemology.co.uk



### 020 7096 0747

35 Ballards Lane | info@stemology.co.uk London, N3 1XW | www.stemology.co.uk