



“Peace of Mind for a Lifetime”

 **FamilyCord**
A CALIFORNIA CRYOBANK COMPANY



An Embrace That Can Last A Lifetime . . .

Dear Expectant Parent,

Congratulations on the upcoming birth of your baby. As a physician and mother, I know how important it is to protect the health of your child. Choosing to preserve your newborn's stem cells is one of the first, and possibly one of the most important decisions you will make as a parent.

The birth of your baby provides the one and only opportunity to preserve umbilical cord blood and cord tissue stem cells. Preserving them now gives your family the potential to benefit from the many established and potential future applications.

Today, cord blood stem cells are being used in the treatment of over 80 conditions of the blood and immune system as part of a stem cell transplant, and have become an excellent alternative to traditional bone marrow transplants for many patients. Clinical trials are currently underway researching the potential for cord blood to help treat conditions like cerebral palsy, autism, diabetes, and many others. Cord tissue contains a different type of promising stem cell, and is being used in experimental therapies for regenerative medicine to address conditions like heart disease, stroke, and spinal cord injury.

FamilyCord is part of the California Cryobank Life Sciences platform, a 40+ year old company established by physicians, and is presently the global leader in sperm and egg reproductive services and family stem cell services. Your baby's precious cord blood will be preserved by our state-of-the-art California Cryobank stem cell processing laboratory. Our impressive facility currently stores more than 875,000 newborn stem cell samples and features the most advanced systems to ensure their ongoing safety. We are AABB accredited, FDA registered, and CLIA certified. Our company's quality standards have been further recognized through achievement of an ISO 9001:2015 certification—the global business standard for quality.

We are delighted to help your family make an educated decision about cord blood and cord tissue preservation. If you have any questions, please contact one of our Cord Blood Educators by phone at 877-588-2673, or by email at contactn1@familycord.com.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jaime".

Jaime Shamonki, MD, Chief Medical Officer
California Cryobank Life Sciences and FamilyCord



TABLE OF CONTENTS

4-5	Our Mission and History
6-7	Leadership and Founders
8-9	Securing the Future
10-11	Cord Blood Banking
12-15	Cord Tissue Banking
16-17	Advanced Processing
18-21	Cord Tissue Complete™
22-25	The FamilyCord Advantage
26	How Banking Works

OUR COMPANY

We're thrilled that FamilyCord and CBR have come together under the California Cryobank Life Sciences umbrella to become one world-class life sciences company. California Cryobank Life Sciences is the global leader in sperm and egg reproductive services, as well as stem cell services.

WHY CALIFORNIA CRYOBANK?

Our egg and sperm donor programs help people achieve their dreams of becoming parents, while our stem cell banking services help preserve healthy futures for our families. We look forward to adding you to our growing list of families!

OUR MISSION

We empower families to enhance their lives with the highest quality reproductive and stem cell services.

Our team is committed to delivering outstanding customer service, unmatched scientific excellence, and innovative industry leadership.

California Cryobank Life Sciences is dedicated to helping clients pursue dream of having a baby and protecting their family with newborn stem cells.

WHERE WE STARTED

California Cryobank was founded in 1977 by Dr. Cappy Rothman and Dr. Charles Sims to help their patients achieve their dreams of having a family. Initially a small sperm bank, it was one of two in the country and grew over time from physician referrals. By the mid-1980s, California Cryobank had helped define the FDA donor qualification standards and expanded its service to all of the United States. In 1997, we launched California Cryobank's stem cell services division, which grew to become a recognized industry leader in the U.S.



WHERE WE ARE NOW

From our humble beginnings, California Cryobank has grown into the largest donor gamete bank in the world. In 2018, we joined forces with CBR to become the world's largest newborn stem cell company. We continue to focus on innovative services, scientific excellence, and unmatched customer experience. After 40 years, hundreds of employees, and thousands of families created and protected, one thing has never changed . . . when you succeed, we succeed.

INDUSTRY LEADERS

California Cryobank is the #1 newborn stem cell and reproductive tissue bank. The company was founded by physicians and is supported by medical directors, genetic counselors, client consultants, newborn stem cell educators, laboratory staff, cryogenics teams, and others.

WE CARE ABOUT QUALITY

MOST RIGOROUSLY SCREENED SPERM DONORS

- Five strategically-placed local branches near top schools like Harvard, MIT, Columbia, and UCLA to optimize recruitment
- DNA Advantage™ donors are screened for over 260 single gene conditions by Sema4
- Criminal background check and psychological screening by ASRM mental health professionals

MOST COMPREHENSIVE FROZEN EGG PROGRAM

- Take home a baby or receive a 100% assured refund
- 350+ highly screened and diverse donors
- 58% clinical pregnancy rate per transfer

WORLD'S LARGEST NEWBORN STEM CELL COMPANY

- Certified genetic counselors on staff
- Free processing for egg and sperm clients
- 875,000+ stem cell units

YOUR RESOURCE FOR INDUSTRY EXPERIENCE

- Scientific & clinical board composed of leaders in Regenerative Medicine, Embryology, Andrology, Psychological Services, Regulatory Affairs, and Medical Genetics
- 35+ licenses & accreditations managed by dedicated quality & regulatory affairs team
- Full-time genetic counselors and a wonderful client services team



LEADERSHIP

From our physicians, lab technicians, and genetic counselors to our client consultants and business executives, we work hard to ensure you receive the best customer service we can provide.

Richard D. Jennings, *Chief Executive Officer*



With an MBA from Harvard Business School and a Bachelor of Science degree in Chemical Engineering, Richard Jennings brings a wealth of knowledge and experience in the biomedical and healthcare fields. Prior to joining California Cryobank, Richard served as CEO of Mediscan, one of the premiere healthcare staffing firms in the U.S. His experience includes: fundraising for the American Heart Association in Los Angeles; CFO of the Woodlands Chamber of Commerce; and Association Administrator of the Encino-Tarzana Regional Medical Center.

Pamela Richardson, *Chief Operating Officer / President*



Pamela Richardson is the COO/President of CCB's Reproductive Tissue Services Division, overseeing both the sperm and egg donor programs. Prior to joining CCB, she worked as a global strategic consultant for McKinsey & Company. She also served as the Vice President of Corporate Alliances at Disney. Pamela earned her BS from the University of Virginia and her MBA from the Kellogg Graduate School of Management at Northwestern University.

Jaime M. Shamonki, M.D., *Chief Medical Officer*



Dr. Shamonki trained in Anatomic and Clinical Pathology at New York Presbyterian Hospital – Weill Cornell Medical College, and has completed fellowships at Weill Cornell and University of California, Los Angeles. Prior to joining CCB, Dr. Shamonki developed expertise in women's health and clinical laboratory medicine, serving as the Director of Breast Pathology and Blood Bank Medical Director at Saint John's Health Center in Santa Monica, CA. She also served as an Assistant Professor at the John Wayne Cancer Institute.

FOUNDERS



Charles A. Sims, M.D.

Co-Founder, California Cryobank

Dr. Charles A. Sims, Co-Founder and Medical Director of California Cryobank, is a board certified pathologist with over 40 years of experience in laboratory operations, donor assessment, and frozen reproductive tissue banking. Dr. Sims earned his medical degree from Loma Linda University and is certified by the American Board of Pathology in Anatomical and Clinical Pathology. His extensive experience includes serving as Chief of Pathology at Century City Hospital, operating a large national referral laboratory, and founding Quantum Clinical Laboratories, Inc.



Cappy M. Rothman, M.D.

Co-Founder, California Cryobank

Dr. Cappy Rothman, Co-Founder and Medical Director of California Cryobank, is a board certified urologist. As a nationally recognized expert on male fertility and human sperm banking, he has made dozens of media appearances including Oprah, Phil Donahue, The Doctors, ABC Nightline, and 60 Minutes. Dr. Rothman earned his medical degree from the University of Miami School of Medicine, followed by residencies at Harbor/UCLA Medical Center in Torrance and the University of California, San Francisco, and Loma Linda University. Dr. Rothman is the founder of The Center for Male Reproductive Medicine and has served on staff at Century City Hospital, Cedars-Sinai Medical Center, and as a clinical instructor at UCLA.

SECURING THE FUTURE

The Potential of Newborn Stem Cells

Your baby's umbilical cord is made of tissue and contains blood. Both cord blood and cord tissue are rich sources of powerful stem cells. Cord blood stem cells are currently used to regenerate healthy blood and immune systems as part of a stem cell transplant. They are also being researched for their ability to act like our body's own personal repair kit, and may be able to help our bodies heal in new ways.

Smart

They "know" how to find injured cells in the body and start a healing process.¹ In other words, they may help the body help itself.²

Powerful

Today, cord blood stem cells have been used in more than 40,000 transplants worldwide to regenerate healthy blood and immune systems as part of a stem cell transplant.

A Match For Your Baby

Your baby isn't the only one who could benefit from their preserved newborn stem cells. Siblings and parents could potentially use the cells, too. In many cord blood treatments, stem cells from a matched family member are preferred.



Barrett Ross's cord blood stem cells successfully treated his Type-1 Diabetes. Devoted believers in the power of cord blood, Ross's parents continue to store their twin daughters' cord blood with FamilyCord.

¹ Rosenthal J, Brown HL, Harris DT. Stem cell recovery following implementation of an automated cord blood processing system in a high volume laboratory. *Biol Blood Marrow Transplant.* 2008;14(2):42s.

² Meier C, et al. Spastic paresis after perinatal brain damage in rats is reduced by human cord blood mononuclear cells. *Pediatric Research.* 2006;59:244-249.



Stem Cell Treatments Have Revolutionized Medicine

Stem cells have the ability to develop into many different cell types in the body. Hematopoietic stem cells (HSCs) can be collected from your baby's umbilical cord blood.

To date, physicians have used stem cells in more than **40,000 transplants** to treat over **80 serious conditions**, including cancers, blood disorders, and immune system deficiencies. Scientists are also excited about the role of newborn stem cells in regenerative medicine, which aims to restore or establish normal function in the body. The U.S. Department of Health and Human Services has identified the value of this cutting-edge approach and states that “regenerative medicine is a rapidly growing field of biomedicine that will revolutionize health care treatment.”³

Experts estimate a **1 in 217** chance that your child will have a medical condition treatable with stem cells during their lifetime.⁴ It's also estimated that 1 in 3 people in the U.S. may benefit from a regenerative therapy in their lifetime.

1 in 3



“It is estimated that 1 in 3 people in the U.S. may benefit from a regenerative therapy in their lifetime.”

Two Ways to Potentially Protect Your Family

At FamilyCord, we offer you the opportunity to preserve umbilical cord blood and cord tissue. Cord blood and cord tissue provide different types of stem cells, so storing both gives you a greater number and variety of cell types. This may increase the potential to treat a broader range of diseases.

Cord blood is a rich source of hematopoietic stem cells (HSCs), which have been used in more than 40,000 transplants worldwide. It is also being used therapeutically for regenerative medicine clinical trials for conditions such as autism and brain injury.

Cord tissue is a source of many cell types, including mesenchymal stem cells (MSCs). Researchers have discovered that MSCs may play a major role in future regenerative medicine applications. This research holds the promise of regenerating damaged tissues and organs by stimulating the body to heal itself.

Call 877-588-2673 to enroll today!

³ S. Department of Health and Human Services. 2020: A New Vision. A Future for Regenerative Medicine. 2006.

⁴ Nietfeld JJ, et al. Lifetime probabilities of hematopoietic stem cell transplantation in the U.S. Biol Blood Marrow Transplant. Mar 2008;14(3):316-322.

CORD BLOOD BANKING

Nature's Powerful Protector

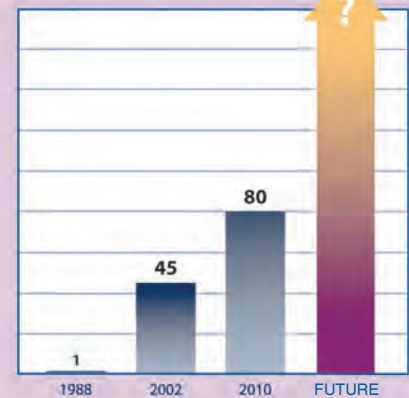
When your baby is born, the blood left inside the umbilical cord is very special. It contains powerful hematopoietic stem cells (HSCs), which have a 30-year history of saving lives. These stem cells have two important features: they can renew themselves and they can create different types of specialized blood cells.

What makes cord blood stem cells different?

Cord blood stem cells are biologically younger and more flexible than adult stem cells from other sources like bone marrow. When saved, they have unique qualities and advantages:

- Less risk of complications when used in transplants⁵
- Ability to use one's own stem cells for conditions that currently have no cure (also known as "autologous transplantation")
- Immediately available and can minimize disease progression in early treatment
- Preserving them "stops the clock," protecting them from aging and exposure to environmental factors and common viruses that can decrease their function.⁶ Researchers are expanding the potential of cord blood with current clinical research studies for autism, cerebral palsy, and diabetes.

NUMBER OF DISEASES TREATED WITH CORD BLOOD STEM CELLS



Diseases Treated With Stem Cells (as of 04/2017)

Leukemias, Lymphomas, and Tumors

- Acute Biphentotypic Leukemia
- Acute Lymphoblastic Leukemia (ALL)
- Acute Myelogenous Leukemia (AML)
- Brain Tumors
- Breast Cancer
- Chronic Lymphocytic Leukemia (CLL)
- Chronic Myelogenous Leukemia (CML)
- Chronic Myelomonocytic Leukemia
- Hodgkin's Disease
- Juvenile Mono-myelocytic Leukemia
- Multiple Myeloma
- Neuroblastoma
- Non-Hodgkin's Lymphoma

Histiocytosis

- Erythrophagocytic Lymphohistiocytosis
- Hemophagocytic Lymphohistiocytosis
- Hemophagocytic Syndrome
- Langerhans Cell Histiocytosis
- X-linked Lymphoproliferative Disease

Myelodysplasias

- Myelodysplastic Syndrome (MDS)
- Myelofibrosis

Blood Disorders

- Chediak-Higashi Syndrome
- Chronic Granulomatous Disease (CGD)

Congenital Erythropoietic Porphyria

- Congenital Neutropenia
- Congenital Thrombocytopenia
- Cooley's Anemia
- Glanzmann's Thrombasthenia
- Kostmann's Syndrome
- Pure Red Cell Aplasia
- Sickle Cell Anemia
- Thalassemia

Bone Marrow Failures

- Amegakaryocytic Thrombocytopenia
- Congenital Dyserythropoietic Anemia
- Diamond-Blackfan Anemia
- Evan's Syndrome
- Fanconi's Anemia
- Paroxysmal Nocturnal Hemoglobinuria
- Reticular Dysgenesis
- Severe Aplastic Anemia
- Shwachman-Diamond Syndrome
- Sideroblastic Anemia

Metabolic Diseases

- Adrenoleukodystrophy
- Alpha-Mannosidosis
- Amyloidosis
- Aspartylglucosaminuria
- Austin's Disease

Fucosidosis

- Gangliosidosis
- Gaucher's Disease
- Hunter's Syndrome
- Hurler-Scheie Disease
- I-cell Disease
- Krabbe Disease
- Lesch-Nyhan Syndrome
- Maroteaux-Lamy Syndrome
- Metachromatic Leukodystrophy
- Morquio Syndrome
- Neiman-Pick Disease
- Osteopetrosis
- Sandhoff Disease
- Sanfilippo Disease
- Sialidosis
- Tay Sach Disease
- Wolman Disease

Immune Deficiencies

- Autoimmune Lymphoproliferative Disease
- Chronic Granulomatous Disease
- Common Variable Immune
- Congenital Immune Deficiency
- DiGeorge Syndrome
- Griscelli Syndrome

- Lymphocyte Adhesion Disease
- Nezelof Syndrome
- Omenn Syndrome
- Severe Combined Immune Deficiency
- Systemic Lupus (SLE)
- Wiskott-Aldrich Syndrome
- X-linked Hyper-IgM Syndrome
- X-linked Immune Dysregulation Polyendocrine Enteropathy

Experimental

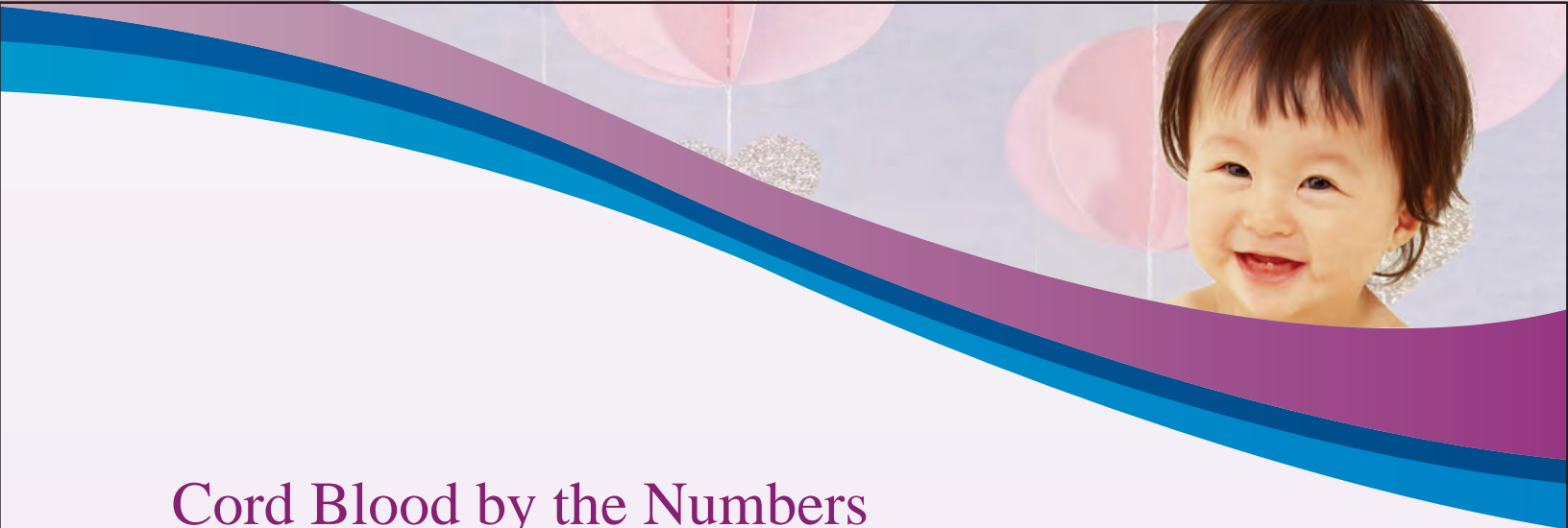
- Autism
- Brain Injury
- Cerebral Palsy
- Diabetes (Type 1)

- Allogeneic treatments
- Autologous treatments

**As with any transplant, therapeutic success depends upon patient condition, type of disease, recipient/donor matching, and other factors. Autologous stem cells are not generally suitable for treatment of inherited genetic diseases, nor are they guaranteed to provide a cure for other diseases. There is no guarantee that the cord blood will match anyone other than the baby.*

⁵ Rocha V, Wagner JE Jr, Sobocinski KA, et al. Graft-versus-host disease in children who have received a cord-blood or bone marrow transplant from an HLA-identical sibling. Eurocord and International Bone Marrow Transplant Registry Working Committee on Alternative Donor and Stem Cell Sources. N Engl J Med. 2000;342(25):1846-1854.

⁶ Behzad-Behbahani A, Pouransari R, Tabaei SZ, et al. Risk of viral transmission via bone marrow progenitor cells versus umbilical cord blood hematopoietic stem cells in bone marrow transplantation. Transplant Proc. 2005;37(7):3211-3212.



Cord Blood by the Numbers

30+ years

The first cord blood transplant occurred in 1988. More than 30 years later, researchers and physicians continue to learn more about current and potential uses to help the body heal itself.

80+ diseases

Can be used as part of a stem cell transplant to help rebuild the immune system after treatment for certain cancers and blood and immune disorders.

40,000+
transplants

Cord blood has been used in more than 40,000 stem cell transplants worldwide, from both public donor and private family banks, to help rebuild healthy blood and immune systems.

100+
clinical trials

Cord blood is being researched in over 100 clinical trials around the world to help improve current applications in stem cell transplants and to investigate possible future applications in regenerative medicine.

over **80%**

More than 80% of the cord blood used by California Cryobank's CBR client families has been for investigational regenerative medicine applications.

over **75%**

Full siblings have a 75% chance of being at least a partial genetic match. Your baby is always a 100% match to their own cord blood. Use will be determined by the treating physician.

CORD TISSUE BANKING

Preserve Today, Protect Tomorrow

There are many reasons to consider preserving your baby's cord tissue and cord blood, but the most important is this: the mesenchymal stem cells (MSCs) found in cord tissue have HUGE potential in the field of regenerative medicine.

A newborn's umbilical cord tissue contains several different types of cells, each with different potential uses. Cord tissue contains unique and powerful stem cells that may help repair and heal the body in different ways than cord blood.

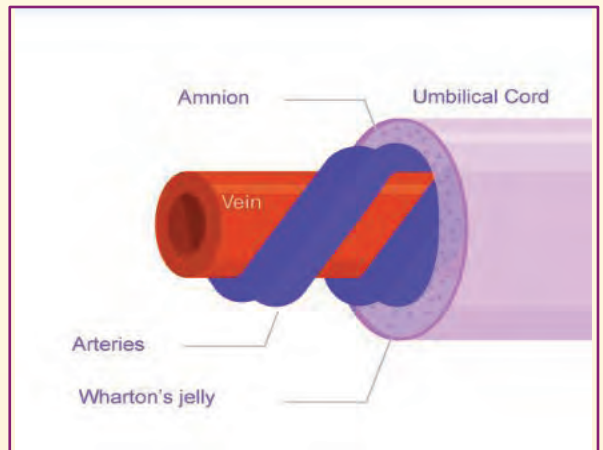
Exciting research into cord tissue stem cells is well underway. Over 100 clinical trials have been initiated worldwide to potentially help treat conditions that can occur over a lifetime, like osteoarthritis, cardiovascular disease, and autoimmune disorders like lupus, among others.

In the future, cord tissue may be used to help improve conditions that have no cure today. Which means that preserving cord tissue now could mean more therapeutic options in the future for your family!

We're thinking about the long game when we store your baby's umbilical cord tissue. For starters, we preserve the cord as whole segments to help safeguard all the cell types, including MSCs, endothelial, and epithelial cells.

Why is this important? Research is still in early stages for cord tissue stem cells. Also, we anticipate that cell-extraction technology will continue advancing, and there may be different methods of extraction depending on the type of cell and how it will be used.

By preserving all of the cells in the cord, we can take advantage of the best that science has to offer in the future.



NOTE: Cord tissue use is still in early research stages, and there is no guarantee that treatments using cord tissue will be available in the future. Should such use become available, cord tissue will require additional processing prior to use. CBR is currently evaluating the potential to isolate and prepare multiple cell types from cryopreserved cord tissue for potential future use.



Preserve These Special Cells

By taking advantage of this one-time opportunity to preserve cord tissue now, you're investing in the promising potential of stem cell science!

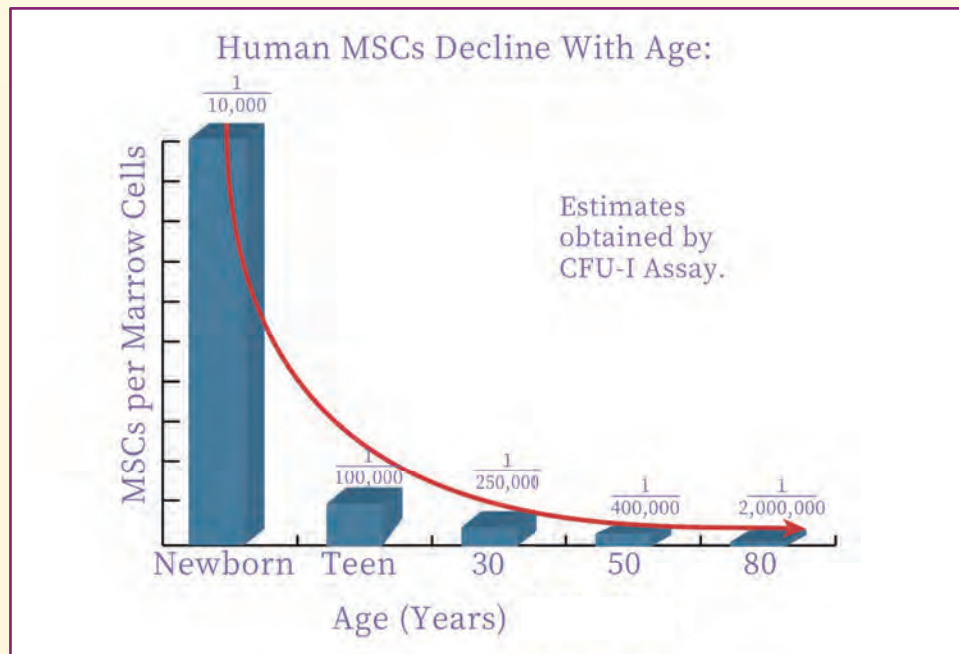
Genetic HLA markers function differently within stem cells from cord tissue. These cells are more immune-flexible than blood-producing stem cells found in cord blood. This means that matching requirements and potential use between family members is less restrictive. Potential future treatments may be available to other close family members as well as your child.

Cord tissue stem cells are easily **expanded** (duplicated) in a laboratory. There may be potential for multiple uses of the cord tissue, if treatments become available in the future.

Additionally, cord tissue contains other beneficial cell types that may have therapeutic potential.

Preserving cord tissue “stops the clock,” locking in their unique advantages and protecting them from aging and environmental exposures.

Age-related Changes in Bone Marrow Mesenchymal Stromal Cells



Human MSC concentration based on age. This graph depicts the decline of humans MSCs with age. For the data, Caplan obtained human marrow MSCs and cultured them measuring CFU-F (colony-forming unit-fibroblast assays) to estimate the titre of MSCs in each marrow sample. The data shows a clear decline with age.⁷

⁷ Grabowski G, Robertson RN. Bone allograft with mesenchymal stem cells: A critical review of the literature. *Hard Tissue* 2013 Mar 22;2(2):20.

*Two of life's most
powerful protectors:*

*“Your love and your
newborn's cord blood.”*

Why should I bank both cord blood and cord tissue?

Cord blood and cord tissue are newborn sources of two different types of stem cells. Preserving both may allow for more options and provide potential benefits for your family in the future.

The Future Is Bright <https://www.cordblood.com/stem-cell-research/cord-blood-uses-and-research>

Clinical trials using cord blood and cord tissue stem cells are currently looking to reveal ways they may play a role in regenerative medicine. Researchers hope to find new approaches to healing the body using the cells' natural abilities to help repair and regenerate.

Cord Blood Stem Cell Uses

Used in the treatment of more than 80 diseases for 40,000 cord blood stem cell transplants worldwide and also being evaluated for utility in regenerative medicine, such as brain injury.

Current Treatments

Blood Disorders

Cancers

Immune Disorders

Full List on Page 10

Clinical Trial Uses

Acquire Hearing Loss

Autism

Cerebral Palsy

Pediatric Stroke

Cord Tissue Potential Uses

Contains various types of cells that are being evaluated in potential therapies for injuries, neurological damage, and more.

Potential Therapies

Autoimmune and Inflammatory Disease

Cancers

Diabetes

Gastrointestinal Disease

Heart and Vascular Disease

Neurological Disease and Injury

Ocular Surface Disease

Skeletal Disease and Injury

Transplant Complications

Vascular Damage

Wounds, Burns, and Ulcers

“When we found out that we were going to have a baby, we knew we wanted to store her cord blood because we wanted to make sure we did everything possible and hope to find a cure for some of the diseases our children might have in the future. Our doctors recommend FamilyCord because of their reliability and reasonable price. Some of the surveys we did found that it was, so gave Elizabeth’s cord blood to them for storage, thanking them for reassuring us.”

-Kimberly from Texas

ADVANCED PROCESSING

Processing Excellence

FamilyCord was founded by physicians and is committed to the highest standards of technical excellence and proven methods. FamilyCord's processing results for Total Nucleated Cells (TNC) and CD34+ stem cells compare favorably with published cord blood data.

Industry Standard of Care

We use red blood cell (RBC) depletion and plasma reduction to isolate stem cells found in cord blood. This process results in a highly concentrated, purified source of stem cells. This is recommended by the FDA and has been adopted by industry-leading stem cell institutions worldwide. It is not necessary to store the RBCs because they do not contribute therapeutic benefits in a stem cell transplant. Most major family cord blood banks perform red blood cell reduction.



Fortunately, reducing the red blood cells also reduces the need for more cryopreservative in your child's sample, decreasing the likelihood of nausea, vomiting, and side effects to the respiratory, cardiovascular, and central nervous system (if the cord blood is used unwashed for treatment).⁸ Cryogenically frozen red blood cells often burst when thawed, resulting in a cord blood unit that can be more challenging to work with.⁹ Burst red blood cells can lead to complications such as jaundice and circulatory shock when the unit is unwashed before treatment.^{10,11,12}



“When it comes to protecting the most important part of our lives, there can be no substitute for the best. We looked at many different options for banking and read tons of reviews. FamilyCord was rated one of the best, and our experience with them has proved the reviews correct. They couldn't have made the process any easier for us. Easy collection, easy financing, and most of all, peace of mind!”

—Kaitlyn, FamilyCord Client

Call 877-588-2673 to enroll today!

⁸ Berz D, McCormack EM, Winer ES, Colvin GA, Quesenberry PJ. Cryopreservation of hematopoietic stem cells. *Am J Hematol.* Jun 2007;82(6):463-472.

⁹ Barker JN, Byam C, Scaradavou A. How I treat: the selection and acquisition of unrelated cord blood grafts. *Blood.* 2011;117(8):2332-9.

¹⁰ Alonso JM, 3rd, Regan DM, Johnson CE, et al. A simple and reliable procedure for cord blood banking, processing, and freezing: St Louis and Ohio Cord Blood Bank experiences. *Cytotherapy.* 2001;3(6):429-433

¹¹ Burger SR. Umbilical Cord Blood Stem Cells. In: Hillyer CD, Hillyer K, Strobl F, Jefferies LC, Silberstein LE, eds. *Handbook of Transfusion Medicine.* Academic Press; 2001:369.

¹² Dean L. Blood Groups and Red Cell Antigens: NCBI 2005; www.ncbi.nlm.nih.gov/books/NBK2265/#ch3.1.4

AXP Processing Technology

We put a lot of thought into choosing a cord blood processing system. Fast, precise, and consistent results are a must—which is one of the many reasons our processing facility uses AutoXpress Platform^{®*} (AXP). AXP is an automated processing technology, meaning the risks associated with manual processing are reduced. Additionally, AXP uses centrifugation and an optical sensor to separate cells. It does not introduce chemical additives, unlike other methods.



Benefits:

- AXP is an automated, closed processing method. Having a closed processing method reduces the risk of contamination; automation maintains consistency
- AXP is also used by the largest public cord blood bank, the New York Blood Center[®]
- AXP has a proven ability to recover 99% of cells - 20% higher than processes using Sepax[®] and Hespan^{®13}
- Exact measurements at every step of the process prevents human error

For more information about cord blood stem cells, please call 877-588-2673.

When we found out that I was pregnant, one of our initial conversations was which cord blood bank we would use. In our search, we found FamilyCord's competitive cost and easy storage process. We have the most personalized service, and only one cord blood educator leads us through the process to ensure that we are fully informed and satisfied. She is our contact person from start to finish. From my first conversation to the day we went to the hospital with the collection kit, we knew we made the right decision. Thanks to FamilyCord for serving us, now and in the future we need you.

—Nicole from California

¹³ Rosenthal J, Brown HL, Harris DT. Cell recovery following implementation of an automated cord blood processing system in a high volume laboratory. Biol Blood Marrow Transplant. 2008;14(2):42s. [http://www.bbmt.org/article/S1083-8791\(07\)00780-X/abstract](http://www.bbmt.org/article/S1083-8791(07)00780-X/abstract)

Introducing Cord Tissue Complete™

*A new process for keeping your cells safe, secure,
and ready for the future.*

Our innovative process and standards put quality and your family first, allowing you to potentially take advantage of new science and technologies. Our processing facility's Research & Development team created ActivCord™, the first test of its kind to measure the health of the whole cord tissue*.

Cord Tissue **Complete**™

PROTECT | **PREPARE** | **PERFORM**

ActivCord

Protect. We'll evaluate the health and quality of your cord tissue with ActivCord, then we store the whole segment to help ensure you have the most options science has to offer in the future.



Prepare. We're prepared for innovative possibilities. With our preservation methods, our clients may benefit from future technology options to isolate and expand mesenchymal stem cells (MSCs) from cord tissue.



Perform. We've done the research. All the data indicate that the MSCs isolated from cryopreserved cord tissue have the special properties needed for future clinical use.¹⁻⁷

References: 1. Skiles, M.L., Brown, K.S., Tatz, W., Swingle, K. and Brown, H.L. Quantitative analysis of composite umbilical cord tissue health using a standardized explant approach and an assay of metabolic activity. *Cytotherapy*. 2018. Apr;20(4):564-575. 2. Choudhery MS et al. Differentiation of MSCs Isolated From Cryopreserved Cord Tissue. *Transfusion*. 2012. 52(S3).SP357. 3. Srivastava et al. Human Umbilical Cord as a Source of Multiple Potential Therapeutics to Treat Experimental Traumatic Brain Injury. *Molecular Therapy*. 2018; 26(5)Supplement 1:Abstract 474. 4. Suttan M et al. Anti-Inflammatory Therapeutic Development and Optimization of Umbilical Cord Tissue Derived Mesenchymal Stem Cells. *Journal of Stem Cell Research and Therapy*. 2018 8:8. 5. Mack, A. et al. GMP-compatible iPSC derivation from multiple perinatal tissue sources from the same donor. Annual Meeting of the International Society for Stem Cell Research 2017. 6. Hunter, C et al. Generation of iPSCs from umbilical cord tissue using multiple integration free reprogramming methods. 2018 58(S2). CT13-SN5-34. 7. Brown KS et al. Cord Tissue Derived hMSCs: Pre-clinical Therapeutic Development for Pediatric Lung Disease. Presented at the 2017 MSC Meeting.
*FamilyCord's processing facility, Cbr Systems, Inc.'s activities for New York residents are limited to collection of umbilical cord tissue and long-term storage of umbilical cord-derived stem cells. CbrSystems, Inc.'s possession of a New York State license for such collection and long-term storage does not indicate approval or endorsement of possible future uses or future suitability of these cells.



Introducing ActivCord™

Our new, innovative whole cord tissue quality test

When you preserve your child's cord tissue, you want to know about the quality of your sample. That's why we created ActivCord™, the first test of its kind to measure the health of the whole cord tissue*. It was developed by our processing facility's Research & Development team as a way to inform you about the quality of your baby's cord tissue sample before it is cryopreserved.

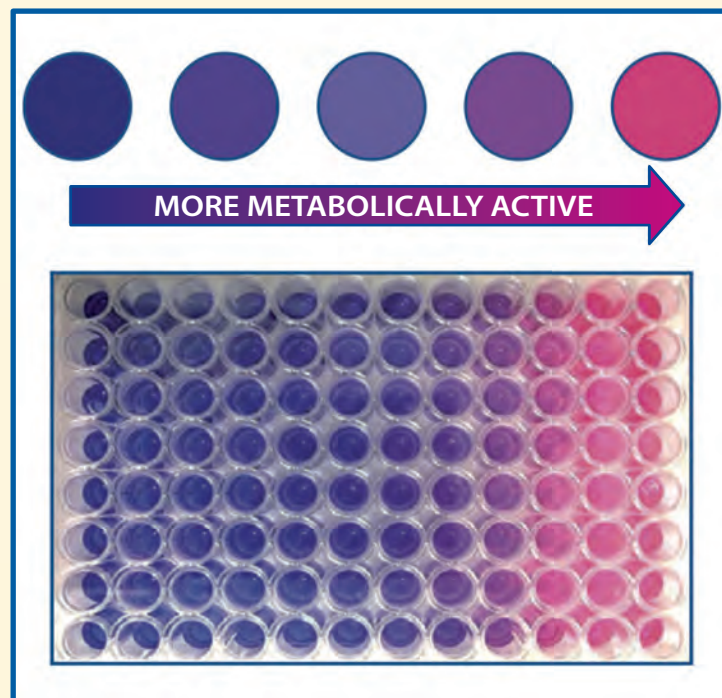
What does ActivCord™ test for?

ActivCord™ tests the metabolic activity of the cells in your sample, and is an indicator of the valuable cells inside.

- We test every cord tissue sample
- We'll notify you if your sample falls below our thresholds
- Our clinical specialists will review your results and answer any questions you have

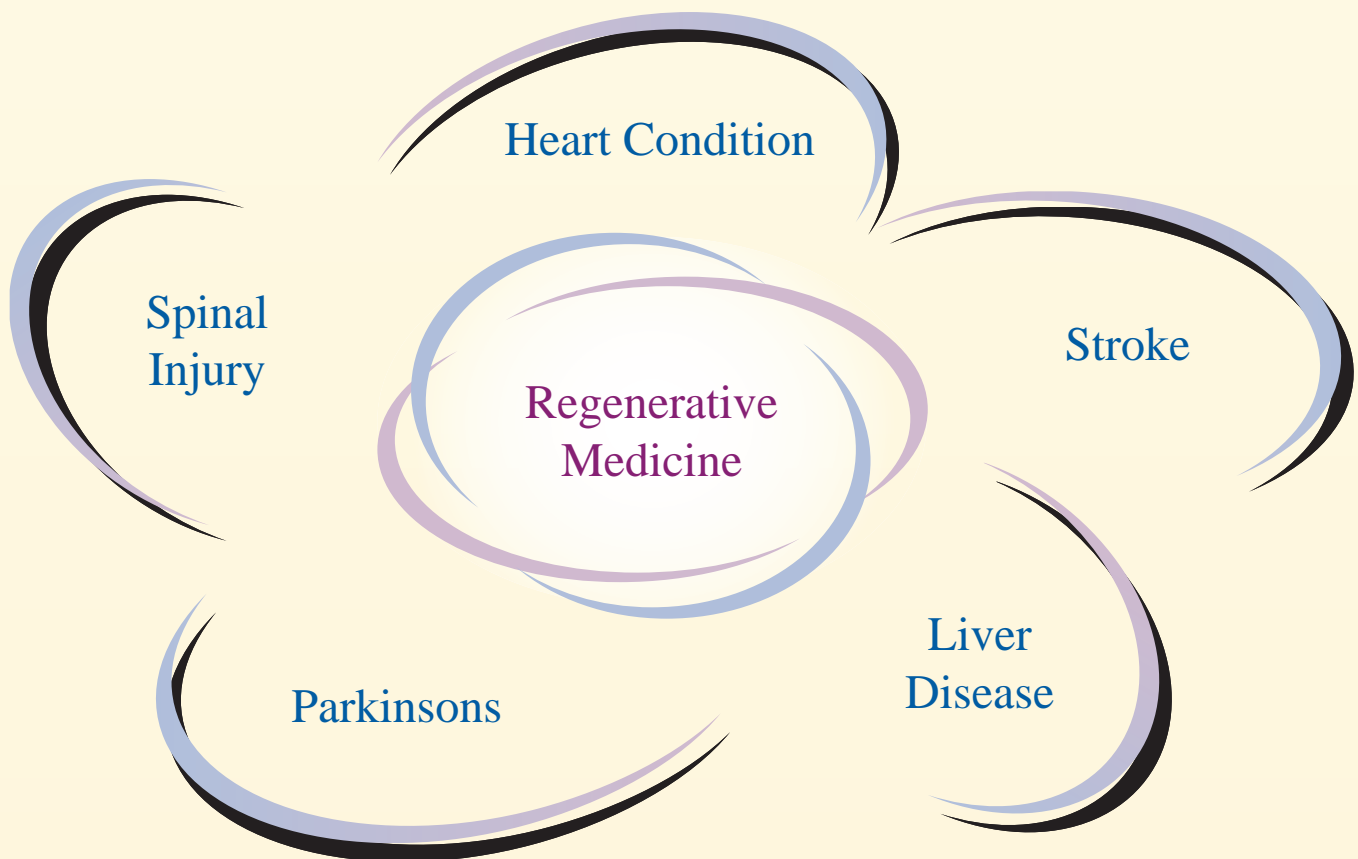
How does the ActivCord™ test work?

The main component of the ActivCord™ test is a blue compound. When metabolically-active cells interact with the compound, a chemical reaction converts the blue to pink. Since only viable cells convert the compound, the amount of shift from blue to pink indicates the cells' viability.



Why did you create the Cord Tissue Complete process?

As the first newborn stem cell company to offer cord tissue banking, we're always looking ahead to the future. And with 100+ clinical trials worldwide studying mesenchymal stem cells from cord tissue, we decided now was the time to expand our processes to prepare our clients for the future.



Great news for our families!

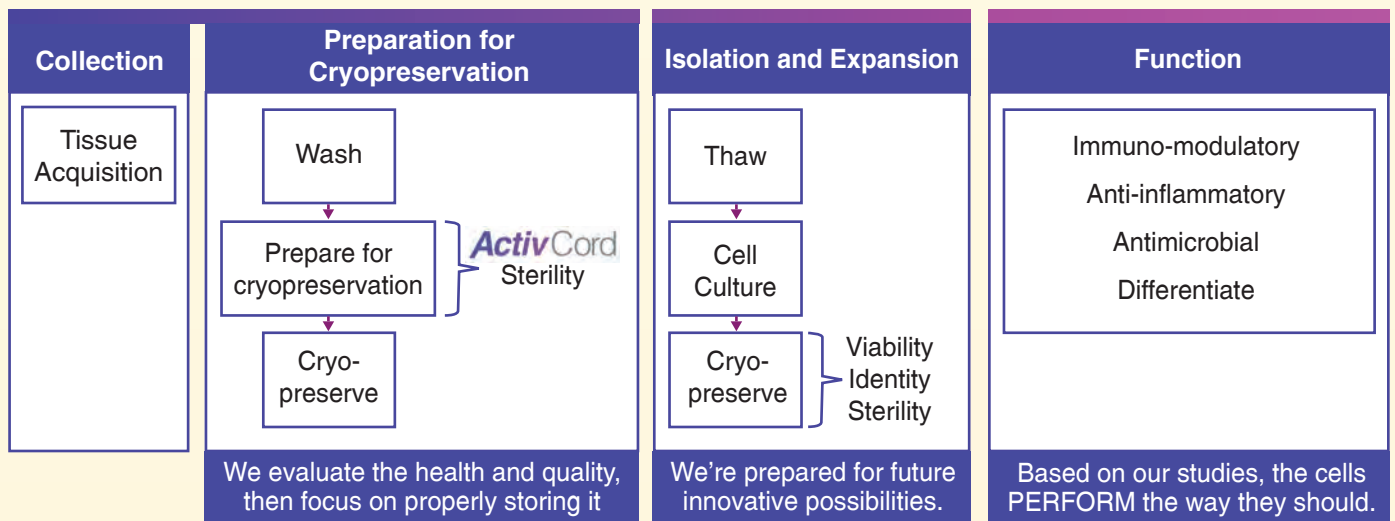
Cord tissue is being investigated in over 100 clinical trials for its potential benefits in treating conditions like autism, multiple sclerosis, and cardiovascular disease.

Cord Tissue Complete™

PROTECT

PREPARE

PERFORM



Cord Tissue Complete is the process we chose to keep your cord tissue stem cells safe, secure, and ready in the future if you need them.

First, we focus on making sure your cord tissue meets our quality standards. Then, we focus on properly storing it. In the event that you need to use the cord tissue sample in the future, the methods of extraction and expansion of cells will depend on your specific situation. However, we'll be there to work with your doctor.

As a whole, this process that ensures we're keeping our clients up to date with advances in science.

The FamilyCord Advantage

FamilyCord's Medical Expertise and Experience

FamilyCord was founded by nationally renowned physicians. We are guided by ethics and world-class scientific expertise in everything we do.

Advancing Newborn Stem Cell Research

Our processing laboratory, CBR, sponsored reputable research institutions on FDA-regulated clinical trials, helped to connect families with research opportunities using newborn stem cells.



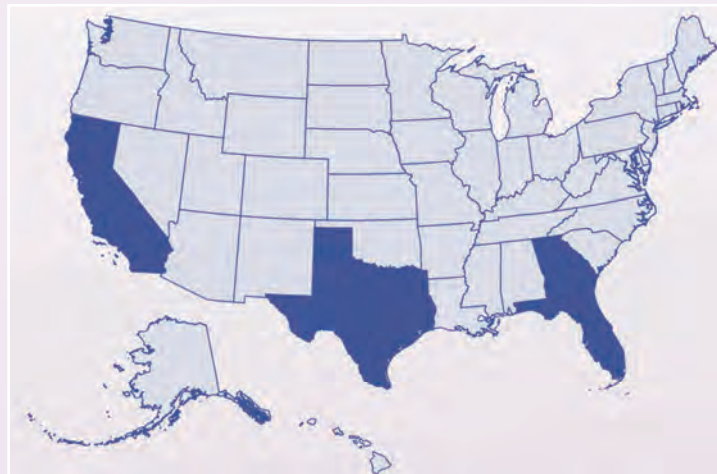
Formerly Florida Hospital for Children

- Acquired Hearing Loss
- Pediatric Stroke



Autism

Sutter Health Institute
Sacramento, CA



Cerebral Palsy

Georgia Regents University
Augusta, GA



Cerebral Palsy

UT Health, The University of Texas
Houston, TX

“Olivia was diagnosed with cerebral palsy. Thanks to FamilyCord, we were able to use her cord blood at Duke University in their clinical trial. FamilyCord helped our family by transferring the unit and managing the clinical data through the entire process. They even followed up with us to see how Olivia was doing afterwards. Storing our baby’s cord blood was the right decision for our family, and if there are opportunities in the future we will store with FamilyCord again!”

- Elizabeth from Michigan

Secure Location and Storage

We chose the site of our stem cell processing and storage facility for one main reason: safety. Its location in Tucson, Arizona, ensures our families' samples will be protected from natural disasters like hurricanes, tornadoes, and earthquakes.

Our secure facility is strengthened by bullet-resistant glass, a floor load capacity of 800,000 pounds (16x the standard requirements), two liquid nitrogen tanks the size of a 747 jet, one of the largest back-up generators available, and temperature monitoring every 1.6 seconds.

Our quality control team performs over 5 million sample checks per year. This includes 3 million temperature checks, 20,000 environmental sterility tests, and 95 control checks on each sample to ensure processes are working correctly and that your family's stem cells remain safe.



State-of-the-art processing and storage:

- Uses multi-compartment, seamless storage bags
- Stores samples in segments for the possibility of multiple uses
- Safeguards against cross-contamination by hermetically sealing each sample in overwrap envelopes and suspending them above liquid nitrogen

First Family Cord Blood Bank in California

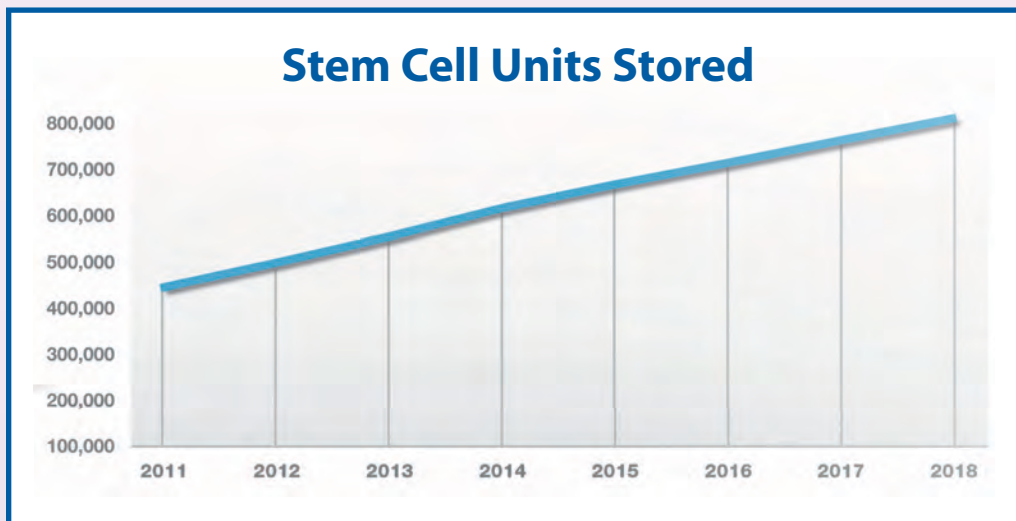
Parent company of FamilyCord, California Cryobank Life Sciences, opened the Stem Cells Services division in 1997. FamilyCord became the first private cord blood bank in California. CBR, our processing facility, launched in 1992 and quickly grew to be the world's largest newborn stem cell company. In August of 2018, these two leading newborn stem cell companies joined forces to become the California Cryobank Stem Cell Services.

Industry Leaders in Newborn Stem Cell Services

In 2010, our processing facility, CBR became the first private cord blood bank to offer umbilical cord tissue preservation.

The World's Largest Family Cord Blood Bank

California Cryobank Stem Cell Services is the largest family cord blood bank in America. Together, we have stored more than 875,000 newborn stem cell samples. To date, over 500 families have used their cord blood stem cells.



FamilyCord Media Coverage:





Accredited and Licensed

Your baby’s precious newborn stem cells will be processed and stored at our AABB-accredited stem cell processing facility. California Cryobank Life Sciences’ CBR laboratory maintains standards for cellular therapy services through:

- FDA Registrations
- AABB (formerly the American Association of Blood Banks)
- CLIA: Centers for Medicare & Medicaid Services CLIA program.
- California Dept of Public Health: Cord Blood, Cord Tissue, and Clinical Testing
- Illinois Department of Health
- Maryland Tissue Bank Permit and Maryland Laboratory Permit
- New Jersey State License Blood Bank
- New York State Department of Health: Cord Blood and Cord Tissue¹⁴
- ISO 9001:2015 certification — the global business standard for quality



Reliable Customer Service

When you enroll with FamilyCord, you will receive your own personal Newborn Stem Cell Educator who will work with your family as it grows. Your educator will be your single point of contact during regular business hours throughout your relationship with FamilyCord.

FamilyCord has been providing stem cell services for more than 20 years and has an “A+” rating with the Better Business Bureau.



“We chose FamilyCord because the customer service representatives we use are more friendly, knowledgeable, and more approachable than anyone else in the cord blood bank we have contacted. The way he treats us is as if we are not just another “customer” but a friend. Every time we call, he knows who we are. He is easy to talk to and easily guides us through the process of storing out children’s cord blood.”

- Jaime from Vermont

¹⁴ Cbr Systems, Inc.'s activities for New York residents are limited to collection of umbilical cord tissue and long-term storage of umbilical cord-derived stem cells. Cbr Systems, Inc.'s possession of a New York State license for such collection and long-term storage does not indicate approval or endorsement of possible future uses or future suitability of these cells.

HOW BANKING WORKS

1. Call a Newborn Stem Cell Educator at (877) 588-2673
2. Review and Sign Agreement
3. Get A Collection Kit
4. Provide Collection Kit to Health Care Provider
5. Collect Cord Blood and/or Cord Tissue
6. Call (626) 626-8211 for Medical Courier with Mandarin Language Assistance
7. Receive Your Processing and Storage Certificate

FamilyCord Visits

We invite those visiting or living in Los Angeles, California, to visit our corporate office.

Please call 877-588-2673 to make an appointment.

Corporate Office:
11915 La Grange Avenue
Los Angeles, CA 90025



JOIN OUR FAMILY SHARE THE POSSIBILITIES

Referral Program—Earn FREE Storage

Do you have friends or family members who are currently pregnant? If so, be sure to tell them about the value of saving their baby's cord blood and tissue. For each of your referrals that enroll, both you and your referral will receive one free year of storage!

Call 877-588-2673 to enroll today!



