New England Cord Blood Bank



Message from the Laboratory and Tissue Bank Director Grace M. Centola, Ph.D., HCLD/CC/ALD (ABB)

"Currently over 85 diseases are treatable with umbilical cord blood transplants, and treatment of more diseases with cord blood stem cells is on the horizon. Over 722 clinical trials are currently being conducted with cord blood. I foresee major advances in disease treatment with stem cells in our lifetime!"

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You have made a wonderful decision to bank your baby's umbilical cord blood stem cells. This is indeed an exciting and generous gift we can give to our children and

grandchildren. Over 85 diseases are now able to be treated with cord blood stem cells, in fact, anything treatable with bone marrow transplantation can be treated with cord blood stem cells. Significant advances in medical treatments are occurring everyday. Currently, there are over 722 clinical trials using umbilical cord blood in the United States alone. Trials are underway to study treatment for childhood and adult blood disorders, childhood and adult brain injuries, Type I diabetes, sickle cell anemia, spinal cord injuries, heart disease, stroke, autism and even Alzheimer's disease. Umbilical cord tissue is being studied as treatment for Parkinson's disease, rheumatoid arthritis, sports injuries, and cancers.

We have developed this quarterly newsletter to provide you with the latest information on umbilical cord blood banking and research advances into use of cord blood stem cells. We do hope you enjoy this newsletter. Please do not hesitate to contact me with questions, comments or concerns by email at <u>drgrace@necryogenic.com</u>, or phone at 617-244-3933.

Umbilical Cord Blood Stem Cells



Can Be Stored Indefinitely!

Any cells, if frozen properly, can be stored in liquid nitrogen indefinitely. The medical literature contains many reports

of the successful use of cord blood units that were stored for more than 10 years. One recent report (Broxmeyer HE, Cord blood hematopoietic stem cell transplantation. May 26, 2010, <u>http://www.stembook.org</u>) reported recovery of umbilical cord blood stem cells from units frozen for 24 plus years!! There is no reason to think that there is deterioration in the quality of cord blood units stored for long periods of time in liquid nitrogen.

In the News....

Cord Blood Reverses Cerebral Palsy in Colorado Girl

http://www.foxnews.com/story/0,2933,573265,00.html

On May 28, 2008, at the age of 2, Chloe Levine received an infusion of her cord blood stem cells. Dr. Joanne Kurtzberg, professor of Pediatrics and Pathology at Duke University, was, and continues to conduct a clinical trial where children with cerebral palsy receive a transfusion with their own cord blood cells. Within days, Chloe's parents noticed a difference...!

Cord Blood Cures Baby's Grapefruit-Sized Tumor

http://www.foxnews.com/health/2011/03/28/cord-blood-cures-babys-grapefruit-sized-tumor/

"I want to encourage other parents to save their child's cord blood. I tell all our families and friends it's the cheapest life insurance you'll ever buy, and it's an amazing opportunity for your child. To look at her, you'd never know, which is the best part of all." (Jamie Page, Schaumburg, III. see above website link for entire article). "Medical advances change so quickly. Who knows when this child is 10, 20 years old if she'll need it," Page said. "It's a great medical backup to have."

FDA Approves Clinical Trial to Treat Autism with Cord Blood Stem Cells

http://www.foxnews.com/health/2012/10/24/clinical-trial-attempts-to-cure-autismwith-cord-blood/

Researchers recently announced approval of a clinical trial to use umbilical cord blood stem cells to treat non-genetic forms of autism. The clinical trial is being conducted by Dr. Michael Chez, director of pediatric neurology at Sutter Neuroscience Institute in Sacramento, CA. More children are diagnosed with autism each year than with AIDS, diabetes and cancer combined, according to www.AutismSpeaks.org.

Advantages of Cord Blood Stem Cells

Why is cord blood more advantageous than bone marrow for transplantation? Cord Blood does not have to be as closely matched as bone marrow or peripheral blood transplants. Cord blood is more readily available than bone marrow, especially if the cord blood is preserved and stored. It takes less than 2 weeks to transfer, thaw and transplant a cord blood unit. Cord blood is less likely to transmit viruses than bone marrow or peripheral blood. Cord blood stem cells are called "multipotent" which means they have the ability to form into different stem cell types. They are being investigated for use in autoimmune diseases such as diabetes, rheumatoid arthritis, and lupus. Research is being conducted to transform cord blood stem cells into other tissue types such as muscle, include heart muscle, liver cells and nerve cells. Cord blood stem cells are also being studied in gene therapy trials.

New England Cord Blood Bank is licensed or accredited by the following:

- ** American Association of Blood Banks (AABB)
- ** New York State Department of Health
- ** California Department of Public Health

- ** FDA Registered
- ** Maryland Department of Health