MAY-GRANT
OBSTETRICS | GYNECOLOGY

CORD BLOOD PRESERVATION: FREQUENTLY ASKED QUESTIONS

What is cord blood?
Cord blood, or umbilical cord blood, is the blood remaining in your baby's umbilical cord following birth. It is a rich, non-controversial source of stem cells that must be collected at the time of birth.

What are stem cells?
Stem cells are the building blocks of our blood and immune systems. They are found throughout the body including in bone marrow, cord blood, and peripheral blood. They are particularly powerful because they have the ability to treat, repair, and/or replace damaged cells in the body.

Why do families choose to collect and store their baby's cord blood?
Today, cord blood stem cells have been used successfully in the treatment of over 70 diseases. For many families, banking their baby's cord blood offers peace of mind that their family's stem cells are readily available should they need them. Others save cord blood because of its emerging use in treating Type I Diabetes and Cerebral Palsy, which requires a child's own cord blood. Stem cells from a related source are the preferred option for all treatment, and transplants using cord blood from a family member are twice as successful as transplants using cord blood from a non-relative (i.e. public source). [1]

How is cord blood collected?
The collection process is safe, easy, and painless for both mother and baby and does not interfere with the delivery. After the baby is born, but before the placenta is delivered, a medical professional will clean a 4 to 8 ince area of the umbilical cord with antiseptic solution and insert a needle collected to a blood bag into the umbilical vein. The blood flows into the bag by gravity until the umbilical vein is emptied. The blood bag is clamped, sealed, labeled, and shipped by courier to a processing lab. The collection itself typically takes about 2 to 4 minutes.

Who can use my newborn's cord blood stem cells?
Your newborn's cord blood stem cells have the potential to be used by the child, and, if there is an adequate match, by siblings, and sometimes parents. An adequate match using related cord blood is defined as a 3 of 6 HLA Match. When two people share the same HLAs they are said to be a "match," which means their tissues are immunologically compatible. With your newborn's cord blood, there is a 100% probability of an adequate match for the child and a 75% probability for siblings.[2]

How long do cord blood stem cells last?
It is well-established that stem cells are still viable after 15 years of storage.[3] Although there is no definitive data on how long cord blood stem cells last, the New York State Health Department Guidelines for cord blood banking state, "there is no evidence at present that cells stored at -196° C in an undisturbed manner lose either in-vitro determined viability or biologic activity."

What are the odds of having a stem cell transplant?
The latest statistics suggest there is a 1 in 217 chance for any given individual to undergo a stem cell transplant by age 70.[4]

How much does it cost to preserve cord blood with a Family Bank?
Generally, the cost for blood stem cell preservation as a one time charge of about $2200 and an annual storage fee of about $125. Many companies offer extended payment plans as low as $64 per month.

More information can be found by calling 1-877-CORD FACTS (1-877-267-3322)

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[1] Gluckman, et al. *New England Journal of Medicine,* 1997; 337:373

[2] Beatty PG, Boucher KM, Mori M, Milford EL. Probability of finding HLA-mismatched related or unrelated marrow or cord blood donors. *Human Immunology,* 2000; 61:834-840

[3] Broxmeyer et al. *PNAS*, January 21, 2003, Vol 100, no 2: 645-650

[4] Nietfeld JJ, Pasquini MC, Logan BR, Verter F, Horowitz MM. Lifetime Probabilities of Hematopoietic Stem Cell Transplantation in the US. Biology Blood Marrow Transplant, 2008 March; 14 (3): 316-22.

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OPTIONS FOR CORD BLOOD BANKING

Expecting a child is exciting for new and veteran parents. You have many important decisions to make for your family's future, including choosing a cord blood banking option that is right for you (check one below):

☐ **Family Banking**
Family banking allows families to save their child's cord blood exclusively for their family's use. This service is available through private cord blood banks that charge a fee to collect, process, freeze, and store your child's stem cell-rich umbilical cord blood for your family's future medical use. Contact a daily bank to enroll in this service. (There is no guarantee that banked cord blood will be a match for a family member or will be an appropriate or effective treatment. Augloogous cord blood stem cells will not guarantee suitable treatment for all inherited genetic diseases.

☐ **Donation**
Cord blood donation is a way for you to preserve the potentially live-saving stem cells found in the blood of your child's umbilical cord and placenta in a donation facility for the public good. Once you donate the cord blood to a public facility, your family does not retain ownership of the cord blood. Find out if your hospital accepts cord blood donations.

☐ **Discard**
Discard umbilical cord blood as waste. The cells cannot be retrieved for future use.

I have read the information above and discussed by cord blood banking options with my healthcare provider. I have indicated my choice above.

_____ _____
Patient Signature Date

For Medical Professional's Use Only

Patient Name: DOB:

Medical Professional: Cord Blood Bank: