Options for saving your baby’s cord blood
A child’s birth is a gift of joy to a family, and it can offer the gift of life to others. Umbilical cord blood is a rich source of stem cells that are crucial in lifesaving transplants and are instrumental in groundbreaking medical research. Stem cells present a new pathway for treating diseases previously considered untreatable. They have been used to treat patients worldwide who suffer from more than 70 diseases, including blood cancers and sickle cell anemia.
Cedars-Sinai offers four options to families wanting to donate or store cord blood

Cedars-Sinai offers a comprehensive set of options for families that want to donate or store their child’s cord blood. Through an exclusive agreement with Cryo-Cell International—a leader in the field of cord blood banking—the few ounces of blood left in the umbilical cord and placenta after delivery can be safely processed and then donated or stored for possible future use.

- **Public bank**: anonymous donation to Cryo-Cell’s public cord blood bank. If your donated cord blood meets the criteria, it will be made available to help patients who need a stem cell transplant. This option is provided free of charge to families.
- **Private bank**: cord blood is preserved and stored by Cryo-Cell and then available for exclusive use by your family. This option is fee-based.
- **Private bank + storage for possible generation of induced pluripotent stem cells (iPSCs) in the future**: a portion of your child’s stored cord blood is isolated for the possible later generation of iPSCs. The iPSCs are not generated unless requested or needed. The isolated portion can be converted to iPSCs at Cedars-Sinai at any time for possible future therapies. The fee for this option is the same as the cost for private banking + an additional $65.
- **Private bank + generation of stem cells for future disease therapies**: after the cord blood is collected and tested, a portion is converted to iPSCs at Cedars-Sinai and is stored at the medical center. The iPSCs at Cedars-Sinai may offer families timely access to important future disease therapies, if needed. The fee for this option is the same as the cost for private banking + an additional $5,650.

How is cord blood collected?

- Cord blood collection takes place after a baby is born and the umbilical cord has been cut. It is then collected into a bag. The collected cord blood is packaged and shipped to Cryo-Cell and is processed by the laboratory within 48 hours of collection. There are no health risks to the baby or mother from cord blood collection.

Why is Cedars-Sinai exclusively partnering with Cryo-Cell?

Families face hundreds of decisions when they learn they will have a baby. Several companies offer cord blood banking services, but not all of them use the same methods and practices to store the cord blood. Experts from the Cedars-Sinai Department of Obstetrics and Gynecology and from the Cedars-Sinai Board of Governors Regenerative Medicine Institute evaluated a number of companies and found that Cryo-Cell exceeded their expectations in the quality of their service and best practices for storing cord blood.

Cryo-Cell is one of the few companies offering both accredited public cord blood banking and private cord blood banking services. It uses the highest-quality processes and advanced technologies to increase the likelihood that the stored blood will have the maximum number of viable cells when it is needed for medical use. In addition, Cryo-Cell and experts at the Cedars-Sinai Regenerative Medicine Institute have developed a protocol that will allow a portion of the cord blood to be isolated for future stem cell generation.
Can I do both delayed cord clamping and cord blood banking?

Yes. If needed, obstetricians may wait before clamping or cutting the umbilical cord to allow more cord blood to stay with the baby, which is known as delayed cord clamping. Obstetricians and families do not need to alter their care plan for the mother or baby to accommodate cord blood collection.

When is cord blood used for transplantation?

Cord blood is one of three sources of stem cells used in transplants to treat patients with blood cancers and other hematologic malignancies. The other two sources are bone marrow and peripheral blood stem cells. Cord blood has some advantages for use in transplantation. Rejections of a cord blood transplant are less frequent and less severe compared to a bone marrow transplant.

• Cord blood is an especially important resource for patients who do not have an immediate family member who is a match to donate bone marrow or stem cells for transplant. Published studies have found that cord blood units do not need to match a patient as closely as bone marrow or peripheral blood donations for a successful transplant.

• Cord blood also is helpful when a patient needs a transplant quickly. Because the units are stored and readily available, they may be a better option for a patient who cannot wait weeks or months to find a suitable bone marrow donor.

• These units are especially important for those from diverse racial and ethnic backgrounds who have difficulty finding a suitable match through the National Marrow Donor Program bone marrow registry or other bone marrow donor registries.

What is the benefit of donating to a public bank?

Any patient in need of a blood stem cell transplant to treat a blood cancer or hematologic malignancy has access to cord blood units made available by the public bank through the National Marrow Donor Program. There is no cost to families because the public cord banks pay for the processing, testing and storage of donated cord blood. However, families wishing to have their baby’s cord blood available for use by their family should not choose this option. A transplant for an unrelated individual requires significantly more cells, so there is a greater chance that a small unit will not qualify to be placed within the National Cord Blood Inventory. Additionally, if the unit is listed in the National Cord Blood Inventory, there is no guarantee that it will be available to your family, as it may already have been used. Donated cord blood units that are too small for the public inventory may be useful at Cedars-Sinai for research or at one of Cryo-Cell’s other research partners.
Should our family consider storing cord blood for private use?

While cord blood has been a successful treatment for a number of diseases and immune disorders, there are no accurate statistics on the likelihood of children someday needing their own stored cells. It is not known for exactly how many years stored blood may remain viable. We do know that Hal Broxmeyer, PhD, who is credited with being a founder of the field of cord blood—and who is the founder of Cryo-Cell’s public cord blood bank—tested units that were cryogenically frozen for 23 1/2 years, and all samples were viable.

**Donation to public banks or private banking**

Historically, the chance of using one’s cord blood has been low. The American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists recommend families donate cord blood for use in public banks in most cases. Private banking should be considered for family use when there is a full sibling in the family with a condition that could benefit from cord blood transplantation, as siblings have a 25% chance of being an exact match. The AAP discourages private storage of cord blood as “biological insurance.” Joanne Kurtzberg, MD, a leading cord blood expert, strongly encourages parents to bank their children’s umbilical cord blood and expects the practice to become more routine, according to an article in the May 2016 issue of AABB News, the magazine of the American Association of Blood Banks. “All parents should have the option to bank their child’s umbilical cord blood,” Kurtzberg said in the article. Families should discuss options for banking cord blood with their doctor well before delivery of the newborn.

**Some patients cannot use their own stored blood**

For some blood cancers and malignancies, such as leukemia, a patient’s own stored blood most likely could not be used for treatment, as those blood stem cells would have the same mutation that caused the disease. However, clinical trials are being performed to treat conditions and diseases such as diabetes, other autoimmune diseases, autism, cerebral palsy, stroke and spinal cord injury. These trials could significantly increase the likelihood of using one’s own cord blood.

We encourage you to discuss your options with your obstetric provider. For more information on the above programs, please call Cryo-Cell at 800-786-7235.