

CORD BLOOD BANKING

As a prospective parent, you should be aware of the option of cord blood banking at the time of delivery. We want to help you make an informed decision to bank, donate, or discard your baby's stem cells.

Stem cells are immature cells that are "building blocks" and have the ability to become the cells that form all of our organs and tissues.

After a baby is born and the umbilical cord has been clamped and cut, some blood remains in the blood vessels of the placenta and the attached portion of the umbilical cord. This cord blood is rich in hematopoietic (blood-forming) stem cells, which are otherwise available in the bone marrow.

Stem cells from cord blood have been used in more than 30,000 transplants to regenerate healthy blood and immune systems and in the treatment of more than 80 serious diseases and disorders. By helping to replace a patient's damaged blood and immune system, cord blood stem cells can help treat and even cure a number of diseases including certain cancers including leukemia and lymphoma, immune diseases, blood disorders including sickle cell anemia and thalassemia, and metabolic disorders.

Although current uses of cord blood are limited, the potential benefits to stem cell therapy are enormous because they have properties that have been shown in the laboratory to help the body repair itself. Ongoing clinical trials are seeking to advance treatment options using cord blood stem cells in both transplant and regenerative medicine. Studies of their use in regenerative medicine applications are underway for conditions such as autism (estimated to affect 1 in about 90 children), cerebral palsy (estimated to affect 1 in about 300 children), pediatric stroke (1 in 4,000 full-term newborns exhibit symptoms), traumatic brain injury (which affects about 475,000 children), type 1 diabetes (15,000 children are diagnosed every year) and acquired hearing loss (15 percent of children in the US suffer from hearing loss).

A child is always a perfect match for his or her own stem cells. However, no accurate estimates exist of the likelihood of children to need their own stored cells. Sources give ranges from 1:1000 to 1:200,000. Of course cord blood banks suggest that the chance is much higher. When stored properly, newborn stem cells remain safe and ready for future use indefinitely. Banking blood is like having a home insurance policy. You will probably never need it, but if you do need it, it's a great thing to have.

Cord blood can be collected with either vaginal or cesarean delivery, and it is possible to collect cord blood after delaying cord clamping.

There are several options for cord blood donation. With family banking the stem cells are stored for your family's exclusive use. There are multiple companies from which to choose, and they charge a one-time processing fee as well as an annual storage fee. Many family banks have payment plans and some have gift registry programs. We do not have a particular recommendation as to which company you should use. We are happy to use any company's collection kit. You can start your search by reviewing private cord blood banks. Frances Verter, an independent volunteer researcher of cord blood facilities and a board member of the Umbilical Cord Blood Education Alliance, has a website containing information about more than 20 cord blood banks and organizations in the United States, their contact information, and a short description of each one. Her website, *A Parent's Guide to Choosing a Cord Blood Bank* can be reached easily from our Links page under Resources. When considering a bank, don't assume it's best to enroll with one close to your home. A bank's headquarters and its storage facility may not even be in the same state. What's important is to find the right bank for you. If possible, start your cord blood bank search early. There's a lot to consider when choosing a private bank, and you'll want plenty of time to review the available services and weigh your options. Private cord blood banks urge parents-to-be to enroll in their programs during the second trimester. Some even offer modest savings if you sign up early but even if you're already in your third trimester, you can still bank your baby's cord blood. There may be a late enrollment fee if you're getting close to your due date.

You must register with the company of your choice in advance and bring the kit with you to the hospital. This is not covered by medical insurance and there is a fee charged by the practice to collect and package the sample(s).

There may be free family banking for families with a medical need with some companies. If the newborn's parent or full sibling has been diagnosed with a life-threatening disease currently treatable with a donor stem cell transplant, or you are expecting an at-risk baby who may benefit from an investigational treatment using his or her own stem cells, you may be eligible. Processing and storage for several years may be free of charge, after which there will probably be a yearly storage fee.

Public donation allows families to donate their stem cells to help anyone who may be a match – they are not kept for the exclusive use of your family. There are some hospitals that are participating in public banking paid for by a government grant. Paoli is not one of them at present. There is, however, at least one option for public donation through the Cord for Life Foundation. The cord blood bank they use is Lifeforce Cryobanks. If you wish to provide a public donation, their respective websites are www.cordforlifefoundation.org and www.lifeforcecryobanks.com . You must still register with them (by 32 weeks gestation) and bring the kit with you to the hospital. They are not able to accept your donation if you deliver between 3 PM on Friday through 3 PM on Sunday due to courier pick up constraints.

Please speak with one of the doctors in the practice if you have additional questions.