



What is cord blood banking?

Cord blood banking involves collecting blood left in your newborn's umbilical cord and placenta and storing it for future medical use. Cord blood contains potentially lifesaving cells called stem cells. (The stem cells in cord blood are different from embryonic stem cells.)

For cord blood storage, you have two main options:

- You can donate your baby's cord blood to a [public cord blood bank](#) for anyone who needs it.
- You can pay to store your baby's cord blood in a [family cord blood bank](#) for your family's use.

How is cord blood collected?

Cord blood is collected right after birth. The collection process is painless and safe for you and your baby.

After you've delivered your baby, whether vaginally or by C-section, the cord is clamped and then cut in the usual fashion. You can delay cord clamping, as long as the delay is brief – no more than a minute or two. (If cord clamping is delayed too long, the blood in the cord will clot. And once the blood clots, it's of no benefit – it doesn't go to your baby and can't be collected for storage.)

Your medical provider then inserts a needle into the umbilical vein on the part of the cord that's still attached to the placenta. The needle doesn't go anywhere near your baby. The blood drains into a collection bag. Typically, 1 to 5 ounces are collected. The entire process takes less than 5 minutes. The blood is shipped to a cord blood bank, where it's tested, processed, and cryopreserved (preserved by controlled freezing) for long-term storage if deemed acceptable according to quality standards.

Some family cord blood banks now offer to collect a segment of the umbilical cord in addition to the cord blood. Umbilical cord tissue contains stem cells that are different from cord blood stem cells, and researchers are studying their possible use.

What are the benefits of cord blood banking?

Cord blood is a rich source of blood stem cells. Stem cells are the building blocks of the blood and immune system. They have the ability to develop into other types of cells, so they can help repair tissues, organs, and blood vessels and can be used to treat a host of diseases.

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Cord blood stem cells have been used successfully to treat more than 70 different diseases, including some cancers, blood disorders, and immune deficiencies. Among these are leukemia, aplastic anemia, thalassemia, Hodgkin's disease, and non-Hodgkin's lymphoma. (Cord blood stem cells have also been used to treat sickle cell anemia, but that procedure is not yet on the FDA-approved list.)

Cord blood transplants are also used to treat rare metabolic disorders that would otherwise be fatal for infants (Krabbe disease and Sanfilippo syndrome, for example).

Studies are under way around the world to explore new ways of using cord blood. Children in clinical trials are being treated with their own cord blood for cerebral palsy and autism. Babies and young children in the United States are also being reinfused with their own cord blood stem cells in clinical trials to develop therapies for hydrocephalus (fluid in the brain), oxygen deprivation at birth, traumatic brain injury, type 1 (juvenile) diabetes, and congenital heart defects that require surgery. If the clinical trials are successful, these therapies may become commonly available within a few years.

A full list of the current clinical trials with cord blood is available on the "Diseases Treated" page of the Parent's Guide to Cord Blood Foundation website.

The odds that a child will ever use his or her own stored cord blood are small. According to a 2005 editorial in the journal *Obstetrics and Gynecology*, the chances are about one in 2,700. Other estimates range widely. Advertising from one private cord blood bank puts the odds at 1 in 27. The American Academy of Pediatrics suggests it's more like 1 in 200,000.

Options for our patients delivering with CWCC at Woman's Hospital:

1. Public banking - There is a public bank through MD Anderson (MDACC) that is available for cord blood donation. There are MDACC staff at the hospital that are available to consent you for cord blood donation and help with the cord blood collection process at the hospital – you **DO NOT** need to pre-register for the donation prior to admission to the hospital. The MDACC staff will come to your room to register you if you desire to donate your cord blood once you are admitted for delivery.
2. Private banking – There are multiple reputable cord blood collection companies that are available for patients who want to store their cord blood. You **DO** need to register for this service prior to delivery. Most companies have a registration process that you complete and they then will mail you a collection kit to your home. You then bring the collection kit to the hospital for your delivery. After collection, your cord blood company arranges a courier to pick up the cord blood from the hospital.