

# Cord Blood Banking

## What is cord blood?

Cord blood is the blood that remains in the umbilical cord connected to the placenta after childbirth. Cord blood contains all the normal elements of blood - red blood cells, white blood cells, platelets and plasma. But it is also rich in stem cells, similar to those found in the bone marrow. These stem cells are the blood cells that give rise to all other types of blood cells that are vital to the human body.

## Why would I consider cord blood banking?

Cord blood stem cells can be used to treat certain health conditions, which is why a growing number of parents are considering storing their child's cord blood. A baby's immune system is less mature, therefore when their cord blood is used as a source for stem cells, it is more likely to be compatible than stem cells from other sources.

Some parents choose to collect and store on the extremely rare chance that their child develops a medical condition that could be treated with cord blood/stem cell transfusion in the future. Parents with an older child or a family member with existing medical condition(s) may choose to collect and store their children's cord blood to benefit that family member.

## How is my baby's cord blood collected and stored?

After your baby is born and their umbilical cord is cut, the blood remaining in the umbilical cord is collected via a kit. This blood is then transported to a private blood bank and cryogenically frozen for storage. Cord blood that is stored at private banks is not made available for public use through registries – it is available only to you and your family.

## Is there a cost associated with cord blood banking?

Yes – most private blood banks charge 800-1200\$ for initial collection, processing, and storage, and then approximately 100-200\$ per year for ongoing storage.

## What are some considerations I should make in deciding to bank my baby's cord blood?

The amount of cord blood collected is highly dependent on the length of your baby's umbilical cord and amount of blood it contains after their cord is cut. A short umbilical cord may yield less blood than a longer one. Depending on complications during labour and delivery, collection may not even be possible.

It is very rare and impossible to predict if your baby will ever have a need for their own cord blood. In the event a cord blood transfusion is warranted, there is a chance that your child's own cord blood may not be used, especially if their cells contain the same genetic or congenital disorder that caused the disease. In this situation, screened cord blood/stem cells from a public blood bank would be used.

Grown up children and adults may need more cells to be transplanted than those contained in a single cord blood unit. Therefore, in most cases, even if parents had stored a unit for family use, it would likely not be sufficient for a successful transplantation and additional units stored in public use banks would still be needed.

## Where can I find more information?

Government of Canada Info on Cord Blood Banking - <https://www.canada.ca/en/health-canada/services/healthy-living/healthy-pregnancy/banking-cord-blood.html>

Canadian Blood Services Cord Blood Information - <https://blood.ca/en/blog/2018-07/cord-blood-matters-take-time-learn-more>

