

Cord Blood Banking

What is cord blood?

Cord blood is blood from the baby that is left in the umbilical cord and placenta after birth. It contains cells called hematopoietic (blood-forming) stem cells that can possibly be used to treat some diseases.

What are stem cells?

- Most cells can make copies only of themselves. A skin cell can make another skin cell, for example.
- Stem cells are like blank slates. They can mature into different kinds of cells.

The blood-forming stem cells found in cord blood make new blood cells to replace old ones in the body.

How are cord blood stem cells used?

- Blood-forming stem cells in cord blood can be used to treat some types of illnesses, such as disorders of the blood, immune system, and metabolism.
- They may be used to offset the effects that cancer treatments have on the immune system.

Stem cells occur in places other than cord blood. They are found in blood and bone marrow in adults and children. Using cord blood to treat disease has some benefits over using bone marrow.

- For example, it is harder to collect bone marrow than it is to collect cord blood.
- Collecting bone marrow poses some risks and can be painful for the donor.

What are the limits to stem cell use?

Stem cells are not a "miracle cure." Only a few diseases can be treated with stem cells. There also are other limitations:

- If a baby is born with a genetic disease, the stem cells from the cord blood cannot be used for treatment because they will have the same genes that cause the disorder.
- A child's stem cells cannot be used to treat that child's leukemia, a cancer of the blood.

How do private cord blood banks operate?

Private banks store cord blood for "directed donation."

- The blood is held for use in treating your baby or relatives.
- Private banks most often charge a yearly fee for storage.

- There also will be a fee for collecting the cord blood.

How is cord blood collected?

Cord blood is collected by your health care provider or the staff at the hospital where you give birth. Some charge a separate fee that may or may not be covered by insurance.

- The process used to collect cord blood is simple and painless.
- After the baby is born, the umbilical cord is clamped.
- Blood is drawn from the cord with a needle that has a bag attached.
- After the bag is sealed, the placenta is delivered.
- The process takes about 10 minutes.

What are some situations when it is not possible to collect cord blood?

Sometimes, not enough cord blood can be collected. This problem can occur if the baby is premature or if there is more than one baby and they share a placenta. It also can occur for no reason.

- If an emergency occurs during delivery, it may not be possible to collect cord blood.

What should be considered when deciding whether to store cord blood?

There are some points to think about when making a decision about storing cord blood:

- Many diseases cannot be treated with a person's own stem cells.
- The chance that cord blood stem cells will be needed to treat your child or a relative is very low—about 1 in 2,700. However, research is being done into new uses for stem cells.
- Research also may uncover new ways of treating disease that do not involve stem cells.
- Currently, it is not known how long cord blood can successfully be stored.

All patients in our practice are given additional information regarding Cord blood Banking at your 28 week visit.

If you decide to store cord blood, you will need to choose a cord blood bank.