

## One Mother's Trash is a Researcher's Treasure

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One of the most valuable resources in medicine is thrown away every time a baby is born. Nearly 80 diseases can currently be treated using the stem cells found in the blood of umbilical cords; however, these cells typically end up in the garbage can. New mothers have a chance to instead donate these cells to be used in the development of treatments for cancers, blood diseases, and genetic disorders.

Research has found that umbilical cord blood (or just cord blood for short) is rich with stem cells. Stem cells are like blank cells that have the potential to become skin cells, muscle tissue, neurons, or almost any other type of cell in the body. Stem cells can be used by medical researchers to test the effects of new drugs or treatments on real, human cells without actually testing on a human subject. Anemia, sickle cell disease, many types of cancer are treatable due to stem cell research.



“Stem cells provide so many opportunities and benefits for medical research because we can test new medicines or treatments without risking hurting someone or making a person a guinea pig,” said Dr. Joanne Kurtzberg, CEO of Genexco Research Labs.

Scientists like Dr. Kurtzberg hope to use stem cells to achieve major medical breakthroughs. Stem cell research has the potential to find cures for cancers, cerebral palsy, and could even allow organs to be grown for transplants (without a need for donors). The only problem is: stem cells come with a lot of controversy.

“There is an ethical debate about using stem cells from embryos, which is why we do not use them. Adult stem cells can be donated through bone marrow, but these cells are already destined to become only certain parts of the body. Cord blood stem cells are the perfect solution,” said Dr. Jim Martin, researcher at Genexco.

Cord blood comes from an organ that is unnecessary after birth, so when stem cells are retrieved from it no one is at risk. In addition, these stem cells are not limited in what they can

become as adult cells are. These factors make cord blood stem cells extremely valuable and desirable to researchers. Babies are born every day, which means that umbilical cord blood is abundant. However, there are few stem cells in the blood which makes cord blood stem cells a precious resource.

Medical researchers urge expecting mothers to set up a plan in order to ensure that cord blood does not go to waste. Dr. Kurtzberg says women should talk to their doctor to request that their cord blood be saved after birth. There is a simple process physicians can learn from a fifteen minute online tutorial video on Genexco's website.

There are two options mothers can take to save their cord blood. For an initial charge and an annual fee, cord blood can be stored in a private bank. If this option is chosen, the blood and the stem cells within can only be accessed or used by family members. Storing cord blood privately provides a treatment option for the child or any relative who matches.

If a mother decides to donate cord blood to a public bank, it can be used for research or for the treatment of any sick person who is a match. The cord blood donated to public banks has value for 70 percent of patients who are looking for a matching donor. Patients who use cord blood from public banks have had to extend their search because no one in their family is a match. Public cord blood banks often provide a safety net for these patients.

In the end, it does not matter what way a mother chooses to save cord blood, as long as she chooses to save it. Stem cells have the potential to treat or cure many diseases, but more stem cells are needed for research to continue. Many women are taking to the idea of cord blood donation or storage, but more lives could be saved if every mother saved her cord blood. For more information on stem cell research or cord blood donation visit [www.genexco.com](http://www.genexco.com).

