



CORD BLOOD

1. WHAT IS CORD BLOOD?

Umbilical cord blood is the blood that remains in the vein of the umbilical cord and placenta at the time of birth. Cord blood is rich in hematopoietic stem cells, which make all the different types of blood cells.

2. WHAT IS CORD TISSUE?

Umbilical cord tissue contains a rich source of mesenchymal stem cells, which are increasingly being utilized in regenerative medicine research, targeting potential therapies for a wide range of conditions including heart disease, stroke, multiple sclerosis, and diabetes.

3. HOW IS CORD BLOOD AND CORD TISSUE COLLECTED?

Cord blood and cord tissue are collected immediately after the birth of the baby by your caregiver. The collection process can be performed with either vaginal or cesarean section deliveries and there is absolutely no pain or risk to the mother or child. The umbilical cord is clamped and cut in the same manner as it would be for normal delivery of the baby. Using a cord blood collection bag, blood is drawn from the umbilical cord. Following the collection of the cord blood, approximately six inches of the cord tissue is procured and placed in a sterile container.

4. HOW ARE STEM CELLS USED FOR TREATMENTS?

Umbilical cord blood stem cells have been used to treat nearly 80 diseases with over 30,000 transplants worldwide in a wide range of diseases and conditions such as cancers (including lymphoma and leukemia) and inherited metabolic disorders. In addition, stem cell technologies are evolving, which is likely to increase the utilization of preserved specimens in the future. Research for future uses of these stem cells, such as the treatment of diabetes, Alzheimer's, and cerebral palsy, holds great promise. Stem cells derived from cord tissue are different from cord blood stem cells and are currently being used in many clinical trials, for example, treating cardiomyopathy, ulcerative colitis, diabetes, anemia, autism, and cirrhosis of the liver.

5. WHY IS IT IMPORTANT TO TAKE ADVANTAGE IF THIS ONCE-IN-A-LIFETIME OPPORTUNITY?

Stem cells taken from your newborn's umbilical cord blood are a perfect match for your baby and a close match for other family members. Advantages of using cord blood over bone marrow include prompt availability, decreased risk of transmissible viral infections, reduced incidence of graft-versus-host disease (GVHD) and ease of collection with no risk to the mother or newborn. Statistics show that there is a greater chance for success in a stem cell transplant between siblings than with unrelated donors and recipients.

6. HOW LONG CAN CORD BLOOD STEM CELLS BE STORED?

Leading scientists believe cord blood stem cells can be cryogenically stored indefinitely.

7. WHAT ARE THE ODDS OF HAVING A STEM CELL TRANSPLANT?

The number of diseases being treated by stem cells has been rapidly increasing, and currently, the odds of undergoing any stem cell transplant by age 70 are 1 in 217.