

## INFORMATION FOR CORD BLOOD DONORS

### Background

Cord blood is one of the richest sources of blood forming stem cells and is discarded after childbirth. For over two decades these cells have been used to treat blood cancers, thalassemia and other blood diseases. Cord blood stem cells are being extensively used to treat children and young adults (weighing less than 40 kgs) because of the following advantages:

- Readily available for use – unlike a registry of names and HLA types.
- Has a long shelf life of over 24 years.
- Though preferable, the match need not be 100%.
- Very low incidence of complications like rejections and immune reactions.

Cord Blood is matched by HLA typing (Human Leucocyte Antigen). **Only 30% of children with curable blood disorders are able to find a match within the family and the other 70% of children need to look for a match outside.** HLA matching is ethnicity dependent and the chance of an Indian finding a match in other parts of the world is less than 10%. Even if lucky enough to find one, it will cost approximately USD 40,000 to import the same. Annually 20 million babies are born in India and equal numbers of cord blood resources are being discarded. An Indian Public Cord Blood Bank like Jeevan can increase the chance of finding a match to over 60% and also make it available free of any cost to those who cannot afford to reimburse the processing cost.

### Procedures

#### Step 1

- Enrollment Form to be filled in and reviewed.
- Suitability for cord blood collection is ascertained.

#### Step 2

- Cord blood collection.

Umbilical cord blood will be collected after the baby is delivered and after the cord is clamped and cut. It is a safe, simple and aseptic process. **Collecting cord blood will not in any way harm you or your baby.** Once collected, the bag is then sealed, labelled and sent to Jeevan Stem Cell Bank for further processing and testing. **If, for some reason, it is not suitable for banking it may be discarded.**

#### Testing

A sample of your blood will be collected any time after the onset of labour to within 2 days of your baby's birth. If the cord blood unit qualifies for banking, your blood and your baby's cord blood will be tested for a variety of genetic conditions and infectious agents including HIV and Hepatitis.

#### Other information

**There is no cost to you for participating in this public cord blood banking program.**

If we become aware of any results that are of importance to your or your baby's health we will notify you. To better interpret and understand the results of such studies or tests, it may be necessary to contact you for follow-up testing. **All donor and recipient records are strictly confidential.**

When your baby's cord blood unit information is shared with potential transplant centres, no personally identifying information will be shared. Private information will be held securely by us. If there is a change in your baby's health, Jeevan Stem Cell Bank would like to know about it, as it may affect the suitability of the unit for transplantation.

If you need any clarification, please call 97908 97918 or 89399 99214 between 8.00 am and 6.00 pm or email to stemcell@jeevan.org

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## Frequently Asked Questions

**Q: What are stem cells?**

Stem cells are the master cells of our body from which all the other 250 types of cells are formed. The umbilical cord blood mainly contains hematopoietic or blood cell forming stem cells ie stem cells that form Red Blood Cells, White Blood Cells and Platelets.

**Q: In what conditions can stem cells be used?**

As on date, stem cells have been used to treat almost 70 blood related diseases. Some of them are blood cancers like Leukemia and Myelo-proliferative disorders, Inherited Red Cell abnormality like Thalassemia, Immune-deficiency disorders and Inherited Metabolic Disorders

**Q: What is the different between Public Cord Blood Banking and Private Cord Blood Banking?**

In public cord blood banking, there is no cost to the family concerned. The family donates their baby's cord blood to the bank for future use by any Indian, subject to HLA compatibility, or for research purposes. The cells belong to the bank and the family has no claims on the cells.

In private cord blood banking, the family pays a fee for storing their baby's cord blood ONLY for their future use. The cells belong to the family.

**Q: What is the rationale for public banking?**

When the stem cells are donated, these cells can be made available to anyone across the world who is a perfect HLA match. Hence the likelihood of usage is much more, especially for Indians in any part of the globe as these HLA proteins are similar in people of the same ethnic origins.

**Q: Who cannot donate cord blood?**

Families with history of any genetic medical condition and blood related cancers in the parents and parents' siblings cannot donate their baby's cord blood.

**Q: Does collecting cord blood affect the baby?**

No. Cord blood is collected only after the birth of the baby and after clamping of the cord. The baby is in no way deprived of blood as the routine process of delivery is not interfered with in anyway.

**Q: Does the cord blood collection harm the mother?**

No, it does not harm the mother in any way. It is a completely safe, harmless and painless procedure.

**Q: Can all pregnant women donate the cord blood?**

Every healthy pregnant woman who has a normal pregnancy and a healthy foetus can opt to donate the cord blood of her baby.

**Q: Will a blood sample be collected from the mother?**

Yes, we will collect a sample from the mother any time after onset of labour to within 2 days of the birth of the baby to perform all tests as per the national and international requirements guiding stem cell storage and transplant.

**Q: What is HLA typing?**

HLA or Human Leukocyte Antigen testing is the test for specific proteins that are present on the surface of the leukocyte (white blood cell). If stem cells from one individual have to be used for another person, the HLA types of the donor and recipient need to match.

**Q: What are the chances that any one of us may need stem cells?**

For a family to make use of the cells banked for itself, the likelihood varies from 1 in 2,700 to 1 in 200,000, as the usefulness is limited to the close family alone. Most of the childhood illnesses and cancers have a genetic basis and as the stem cells will carry signs of any genetic illness, the likelihood of the child using its own stored cells is also very remote.

**Q: How do I benefit from donating my baby's cord blood?**

Your cord blood donation will help Jeevan to create a large inventory of tested stem cell units ready for transplant and thus increase the chances of finding a match. In the unforeseen event of any of your children needing a unit of stem cells for treatment of any haematological disease, Jeevan will make all efforts to find a best match available. You will only have to pay the prevailing processing, testing and shipping costs in such an event.

**Q: What if there are twins?**

We do not accept cord blood collection in twin pregnancy for the following reason.

Ideally we require 70 ml or more cord blood to get adequate numbers of stem cells for transplant. In twin pregnancy, the volume of cord blood collected from each twin is appreciably less, as the weight of each twin is also less than an average weight of a newborn.