DONATING YOUR UMBILICAL CORD BLOOD MEANS SUSTAINING STEM CELL THERAPY, WHICH IS AVAILABLE TO ALL COMMUNITY MEMBERS, AND MAINTAING CLINICAL RESEARCH VITAL.

Cord blood collection is completely harmless and painless for both mother and child.

The parents must give their written consent to:

- To make the donation;
- To subject the mother and child to control tests both at the time of delivery and 6 12 months later;
- To collect personal and family medical data to ascertain the absence of blood-transmissible genetic or infectious disorders.

The donation is voluntary and gratuitous. The donor mother and her family will at no phase of the process bear any cost whatsoever. Cord blood donation is guaranteed as an institutional service within the Essential Levels of Care (EAA).

The Italian Association of Umbilical Cord Blood Donors was established in 1995 with a view to disseminating, through all of Italy, the culture of donating placenta blood and the need to promote scientific research on cord blood. Since 2019, it has been promoting adult hematopoietic stem cell donation and registration with the Italian Bone Marrow Donor Registry (IBMDR). ADISCO's activities have included several initiatives aimed at:

- Collaborating with hospitals in organising and upgrading placenta blood donation equipment and services;
- Enhancing scientific research activities in this specific field;
- Providing financial support, through grants and the purchase of materials and equipment for the accredited members of the Italian Network* of Umbilical Cord Blood currently present in most Italian regions;
- Increase the inventory of units suitable for transplantation: to help sustain growth at the world registry level, Italy should collect about 20,000 new units annually with a sufficiently large cell dose of nucleated cells (TNC >160x107).

The network of banks currently covers almost every Italian region. If possible, choose to donate cord blood to a bank accredited with the Italian Public Bank: you will find a complete list on the **www.adisco.it** website.

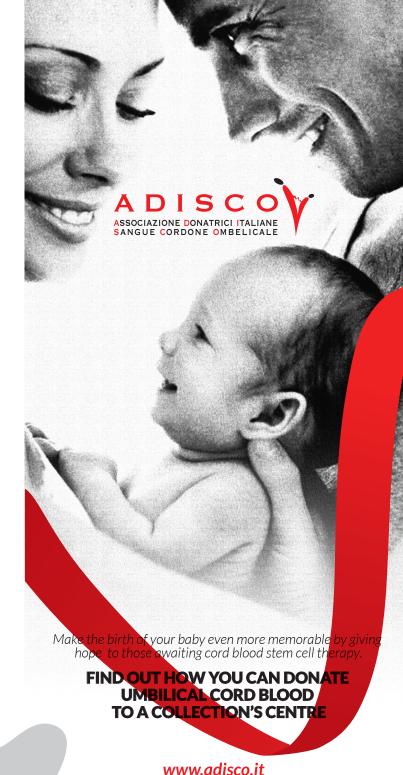
Support ADISCO by allocating 5X1000 of your income tax return to: CF (Tax Code Number) 96309810586 or make a donation on:

Bank account: IBAN IT79 G 05696 03225 000004061X32 or online: www.adisco.it

*The Italian Network of Cord Blood Banks is a group of 18 certified umbilical cord blood banks, one of which can be found in almost all Italian regions. For the complete list, please consult www.adisco.it. Genoa's Galliera Hospital hosts the Italian Registry of Stem Cell Donors (IBMDR), which receives and handles applications filed by patients awaiting hematopoietic stem cells transplantations.







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For references of the adisco sections: www.adisco.it

UMBILICAL CORD BLOOD

Nurturing life...

The umbilical cord, which is the lifeline through which a mother feeds her baby in the womb, is usually thrown away after delivery. Giving your consent to donate your cord blood, which is a key resource for both health and research, means preventing this waste.

Why donate umbilical cord blood.

Umbilical cord and placenta blood is rich in stem cells, very much like the ones contained in bone marrow, which play an essential role in the treatment of serious blood disorders. More specifically, these stem cells are used in transplants on leukaemia and lymphoma patients, or on patients suffering from congenital and metabolic disorders. At present, approximately 80 different varieties of disorders classified as forms of leukaemia and lymphomas, thalassemia, immune system and metabolic dysfunctions, are treated with umbilical cord stem cell transplants.

The list of these disorders is periodically updated by GITMO (Italian Group for the Transplantation of Bone Marrow, Hematopoietic Stem Cells and Stem Cell Therapy). Donating cord blood to a Public Bank is an investment for the future.

This compassionate donation enables anyone needing to undergo a transplant to find a unit with optimal compatibility levels and an adequate cell dose.

The advantages of cord blood vs bone marrow

It can be collected and stored at appropriate facilities (Umbilical Cord Blood Banks), making it immediately available to anyone needing it.

The immature cells it contains reduces the risk of serious transplant complications.

How cord blood is collected

After a baby is born (either by natural delivery or a C-section) and the umbilical cord is cut when it creates no risk for the new-born, qualified personnel collect the blood contained in the umbilical cord.

This procedure is harmless and painless for mother and newborn and is only performed if the highest levels of care can be assured in the delivery room. Within 48 hours, the sterile bag containing the baby's cord blood is sent to the local Cord Blood Bank, where it is analysed and subsequently frozen.

What are the clamping times.

The World Health Organization (WHO) recommends that, after delivery, ligation or clamping of the umbilical cord should occur no sooner than 60 seconds to ensure the health of the mother and newborn and to ensure the necessary nutritional supply to the baby.

The 60-second timing is considered late by the most authoritative international guidelines.

In Italy, as stipulated in the State-Regions Agreement 20/04/2011, in all birth points where cord blood collection is carried out, ligation or clamping is not performed before 60 seconds from birth.

Why it is essential that the parents give their consent

Umbilical cord blood can only be used for transplants if it is infection-free and that is why both the cord blood and the mother's blood have to be tested. Both parents must also agree to supply personal and family medical records. Moreover, the mother must also give her consent both to the donation and to being subjected to control tests at and after delivery (6 to 12 months later), as well as to subjecting the new-born baby to an evaluation by a specialist 72 hours after the delivery and 6 to 12 months later. Lastly, the parents must give their consent to the collection of personal and family medical data in order to ascertain the absence of blood-transmissible genetic or infectious diseases. All the data collected is strictly confidential and shall be exclusively stored at the Umbilical Cord Blood Bank.

Donating is an extraordinarily simple and important act

It is important to know that even if the donated unit is not eligible for a transplant, the umbilical cord blood may be used for clinical tests aimed at developing other therapeutic uses. Research protocols also require the donor's consent and are illustrated before consenting to the donation.

The following are already used clinically:

- Platelet gel from placental blood: is a topical hemocomponent derived from platelets from placental blood; it is applied to skin ulcers and sores for the purpose of regenerating tissues whose deterioration has caused the formation of ulcers and sores, promoting and accelerating tissue repair and regeneration.
- Eye drops: is a topical blood component that finds use in ocular surface disorders including Dry Eye Syndrome, sometimes secondary to Sjogren's Syndrome or GVHD post hematopoietic stem cell transplantation, which can result in severe and persistent damage of the corneal epithelium to the formation of true ulcers.
- **Cord blood:** new transfusion protocols for premature infants, in which the use of blood from newborns is likely to be more effective than that of adult donors because of a higher affinity of the contained hemoglobin, are being studied at an advanced stage.

What is a "dedicated donation"?

If when a baby is born there is a next of kin (a sibling) diagnosed with a disease which can be treated by means of a stem cell transplant, the cord blood collected can be reserved for the diseased sibling and used through the local health authority.

The website of the National Transplant Centre (www.trapianti.salute.gov.it) illustrates the procedures to access this commission, which is called De.di.Co.

In some countries, it is possible to store placenta blood for personal use in private banks, at the expense of the parents. This storage system however is not considered to be useful to the scientific community, because of the lack of clinical evidence.

Remember that your doctor will always be able to request blood units for transplant from the Public Bank.