

Find
your genetic
twin

... and save a life.

Stem Cell Donor
Information Brochure



**Plooschter
Projet**

www.plooschterprojet.lu

MESSAGE FROM THE VICE PRESIDENT

Each year, about 15,000 people across Europe receive an allogeneic stem cell transplant. The main sources of stem cells are siblings, unrelated donors, haploidentical family donors (meaning family members who are only half-compatible, like parents or children) and stem cells from umbilical cords.

Since 2006, most stem cell donations in Europe have come from unrelated donors rather than siblings. This is because the number of transplants has increased, partly because older people can also receive transplants today. In recent years, more haploidentical transplants have been performed. However, this technique is associated with greater infectious complications and cannot be used in every case.

Umbilical cord stem cells are often insufficient for an adult, and multiple donors are sometimes needed. When compatible siblings are not available, unrelated donors remain the ideal source for stem cells. The indications for stem cell transplantation

today are acute leukemias, lymphomas, myelodysplastic syndromes, and myeloproliferative disorders.

Chronic leukemias are now less frequently transplanted due to highly effective medications. If an unrelated donor is needed, a match is found within three months for 75% of patients. However, it is essential to have enough registered donors to ensure that these patients can be effectively treated.

Thank you on behalf of the patients for your commitment.

Dr. Laurent Plawny Hematology - Hemato-Oncology - Cancerology



Statistics from the article "Hematopoietic Stem Cell Transplantation in Europe 2014": more than 40,000 transplants annually, Bone Marrow Transplantation (2016), 1-7.

WHAT IS THE PLOOSCHTER PROJÉT?

The Plooschter Projét was founded by Yannick Lieners, who was diagnosed with leukemia at the age of 25. The form he developed can be treated with medication. However, some patients have a more severe form of leukemia and need a stem cell donation.

These patients undergo chemotherapy, which is effective for about a month. During that month, they need to find a matching donor; otherwise, they relapse and must restart the therapy. To help these patients, the Plooschter Projét was created. The goal of the project is to get as many people as possible to register as stem cell donors, **potentially saving the life of a leukemia patient.**

Become a Stem Cell Donor!

There are several blood disorders, like leukemia, anemia, or immune deficiencies such as lymphomas, where stem cell transplantation is the only treatment option. The probability of finding a suitable donor within the family is higher (25%).

Yet, many patients depend on unrelated donors.

BASIC REQUIREMENTS FOR DONORS:

1. Be between 18 and 40 years old (from 16 with parental consent). Once registered, you can donate until age 60.
2. Not have been pregnant more than twice (including miscarriages).
3. Weigh more than 50 kg.
4. Be in good health.
5. Have a permanent residence in Luxembourg or Luxembourgish nationality, or a permanent residence in Germany or German nationality.

If you meet these conditions, you just need to fill out a health questionnaire and provide a blood sample or saliva swab.



Step 1: Registration

Becoming a stem cell donor is simple. There are two ways to register:

a) Register at home: Call "Picken Doheem" at (+352) 27321 to make an appointment. A nurse can come to your home or workplace to assist with registration.

b) Register at a laboratory: You can register at any "Picken Doheem" center. A list of participating labs is available at www.plooschterprojet.lu.

Step 2: The Actual Stem Cell Donation

(Only if you are called as a match)

It is possible that you may never be contacted to donate (the likelihood is about 5%). If a leukemia patient requires your stem cells, you will undergo a detailed medical exam (CT, Confirmatory Typing).

You may need to self-administer daily injections for about five days to stimulate stem cells in your blood. The actual donation process takes 3-5 hours and is conducted in Germany. All costs are covered by health insurance.

With this donation, you can save a leukemia patient's life!

FINDING THE RIGHT DONOR

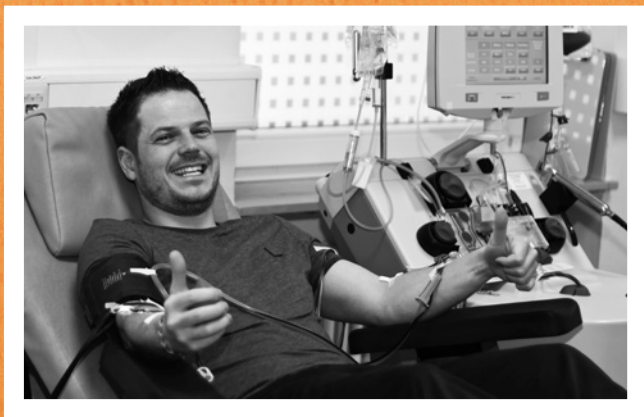
Matching tissue characteristics are crucial for a successful stem cell transplant. If these do not match, the transplanted cells will be rejected as foreign by the immune system.

Therefore, as many tissue characteristics as possible must match to keep the patient safe.

Because there are many tissue types, finding a suitable donor is extremely difficult. Tissue characteristics are partly inherited, so finding a match within the family is more likely. Additionally, the donor must be free from infections before the transplant, which is confirmed through additional tests.

Most registered donors are never asked to undergo these tests because not enough criteria match.





HOW ARE STEM CELLS COLLECTED?

Today, there are two main methods of stem cell collection:

1. Collecting stem cells from the blood

This is the preferred method, used in 95% of cases. After a week-long treatment with medication to increase stem cell count in the blood, stem cells are collected through apheresis, which is similar to a regular blood donation. Blood is taken from one arm, passed through a machine that filters out the stem cells, and returned to the other arm. This process may need to be repeated the next day if more stem cells are needed.

The advantage of this method is that it does not require surgery, anesthesia, or a hospital stay.



2. Collecting stem cells from the pelvic bone

In only 5% of cases, bone marrow is collected from the pelvic bone under general anesthesia. This procedure, which lasts about an hour, involves withdrawing about one liter of a bone marrow-blood mix using a needle. The bone fully regenerates in six weeks, and bone marrow regenerates in two weeks.



What would life be without hope?



Exactly three months ago from today, I began to hope for the life of a four-year-old girl from Brazil. We are not related, yet in some way, we are. I had registered as a bone marrow donor some time ago. This year, I was contacted because my blood values were potentially a match. Further tests confirmed that they were a perfect match, and I was asked if I would agree to donate bone marrow. For me, the answer was immediately clear! Of course, I would donate!

What are a few bone marrow cells, which regenerate anyway, compared to a human life? Last week, I was informed that I also needed to donate lymphocytes to combat the remaining cells. I deeply wish that this little girl can soon live the childhood she truly deserves!

Cancer is a terrible disease, and science has discovered a way to successfully combat it through bone marrow and stem cell donations.

In this spirit: Register, donate stem cells, and help save lives!

Thank you so much for listening.
P.S.: After the procedure, I was a bit tired but incredibly happy.

Marie Muller,
Donor

“

For three months, I've been holding onto hope for the life of a four-year-old girl in Brazil. We have no family connection, yet it feels that way to me. I've been on the bone marrow donor registry for a long time now.

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As long as it doesn't affect you, you often don't care. But sadly, it can happen to anyone at any time.

At 17 years old, you don't expect that fever, chills, and stomach pain could be something serious. But things turned out differently, and after a while, I was diagnosed with T-cell lymphoma, more simply known as stage IV lymph node cancer.

No one expected this. Immediate action was necessary, and I received my first round of chemotherapy in Homburg within just a few days. After eight cycles, I felt relieved and thought I had beaten it, but unfortunately, fate had other plans. The cancer came back, and it became clear that my only chance of survival was a stem cell transplant. At that moment, my life depended on the decision of a stranger.

I was extremely lucky to find a matching donor fairly quickly. This amazing person immediately agreed to help and gave me the opportunity for a second chance at life.

Without this incredible person, I wouldn't be here now, asking you to register as a donor.

You, too, can become a stem cell donor, and maybe somewhere in the world, your genetic twin is waiting hopefully for your help—or you might need theirs someday!

Liz Rehlinger
Receveur

”



FAQ

01 What are stem cells?

Blood stem cells are the precursors of blood cells. They develop into white blood cells (leukocytes), red blood cells (erythrocytes), and platelets (thrombocytes). After a transplant, the donated stem cells settle in the patient's body and restore blood production.

02 How are stem cells transferred, and when does success become evident?

Before the transplant, chemotherapy destroys the patient's diseased stem cells. The donated stem cells are infused intravenously, and they distribute through the bloodstream and settle in the bone marrow. It takes weeks before the patient's immune system functions normally again. Initial increases in white and red blood cells, as well as platelets, are signs of success.

03 What if no matching donor is found?

If no match is found, alternative treatments like chemotherapy or radiation are used. If these methods fail, a stem cell transplant may be the only option.

04 What are the chances of full recovery after a stem cell transplant?

Recovery rates range from 40% to 80%, depending on the illness and the patient's overall health and age.

05 Can a donor withdraw from the commitment?

Withdrawal is possible for various reasons but should occur before the patient begins transplant preparations. After that, the patient's survival depends on the donation.

06 How is the confirmatory typing done?

If you are a potential match, a detailed health questionnaire and blood tests are done to rule out any risks. These steps are repeated each time you are a potential match.

07 What precautions should donors take before donation?

Donors must avoid risks to stay healthy until the donation. If the donor becomes unavailable shortly before the transplant, the patient's life is in danger.

08 What risks does the donor face?

Bone marrow collection involves general anesthesia, which carries rare complications. Mild pain may occur at the puncture site but usually subsides within days. Apheresis does not require anesthesia, minimizing risks, though flu-like symptoms may occur temporarily.

09 Who covers the costs, and is the donor insured?

The Stefan Morsch Foundation covers costs and ensures proper insurance for the donor.

10 Can I meet the recipient?

Under German guidelines, donor-patient meetings are allowed two years after the donation, facilitated by the Stefan Morsch Foundation. Anonymous contact is possible before then.

Become a stem cell donor,
save a life!

THANK YOU

Yannick LIENERS



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