

# Information sheet for Donor's Parents



Every day, 6 Singaporeans are diagnosed with a blood-related disease such as Leukaemia, Lymphoma and Myeloma. For many, a bone marrow transplant is often their last chance of survival. Bone Marrow is the 'factory' that produces blood and it is found between all long bones. All that is needed are stem cells from a healthy individual to replace the diseased bone marrow of a patient. But first, we need to find a match! There is a 25% probability of one sibling coming up as a perfect match for the patient. However, 70% of our patients do not find a match among their siblings. This is where the BMDP comes in, to find a match from the general population where the odds are around 1 in 20,000.

Your child has signed up with us as a potential donor where he has completed a registration form and provided a cheek swab. This cheek swab was then sent to a laboratory to identify your child's Human Leukocyte Antigen (HLA) typing. After which, your child was included into our register of potential donors. Your child has now been found to be a potential match for a patient who urgently needs a bone marrow transplant. We hope this information sheet will help you understand more about the whole donation process and feel free to contact us if you have any further queries.

## Frequently Asked Questions

### Q. Is your organization legitimate?

The Bone Marrow Donor Programme (BMDP) is a Non-Government Organization (NGO) regulated by the Ministry of Health and governed by the Charity of Commission. We are a not-for-profit, registered charity that relies on public funding. The BMDP was established in 1993 to save the lives of patients who have leukaemia, lymphoma and other blood-related diseases. We manage Singapore's only database of volunteer bone marrow donors and help patients who need a bone marrow transplant find a donor match using our register. We are connected to an international network – The World Marrow Donor Association (WMDA) and we facilitate transplants both locally and internationally.

### Q. How does a Bone Marrow Transplant work?

Firstly, a patient who needs a bone marrow transplant undergoes treatment to destroy their diseased bone marrow. Then, the donor's (your child's) healthy blood-forming stem cells are given to the patient, where they can begin to function and multiply, replacing the patient's entire blood and immune system.

### Q. What happens when my child has been found to be a match?

Stage 1. Information session and verification typing: An information session will be conducted to help your child better understand the donation journey and the commitment required. If your child consents to proceed, a cheek swab and/or blood sample will be taken to confirm that your child is the best match for the patient.

Stage 2. Donor Work-up: A doctor consultation with medical check-up will be conducted to ensure that your child is medically fit to donate. Consent from your child will be taken again to proceed.

Stage 3. Donation: Peripheral Blood Stem Cell (PBSC) or Bone Marrow method

Stage 4. Follow Up: Routine medical check-ups and follow up calls

### Q. What is involved in a donation?

There are two methods of donation: peripheral blood stem cell (PBSC) and bone marrow. Your child gets to choose the method of donation.

For PBSC method, your child will be given Granulocyte-Colony Stimulating Factor (G-CSF) injections over 5 days leading up to the donation day to increase the blood stem cells in his body. On the 5<sup>th</sup> day, the stem cells are collected via the blood stream. Two needles are inserted, one at each arm. Blood is collected from one arm, passes through a machine which extracts the blood stem cells and then the remaining blood is returned into the other arm. This is normally done in an outpatient setting and takes between 5-7 hours.

For the Bone Marrow method, the bone marrow is collected from the pelvic bone. This takes place whilst your child is under general anaesthesia for around 50mins and there will be no discomfort during the donation. Your child will be discharged the following day.

For both methods, your child's body will naturally replace the donated stem cells within 4-6 weeks.

### Q. Is donating safe?

For PBSC method, during the 5 days of the G-CSF injections, your child might experience some flu-like symptoms, slight bone aches or feeling of heaviness. During the donation, your child may experience some discomfort such as dizziness, nausea and tingling feeling on his lips, nose or fingers. Most of our donors are able to get back to routine study or work within the next few days.

For the Bone Marrow method, the main risk would be the side effects of general anaesthesia. This includes sore throat, nausea and vomiting. After the procedure, there may be some sore and stiffness in the lower back for a few days or longer, but your child will be able to get back to routine work or study in a few days and full physical routine in a few weeks.

For both methods, our doctors will conduct medical examination and health history questionnaire to ensure that your child is fit and healthy to donate. A donor management representative will also follow up with your child throughout the donation journey.

### Q. Can I accompany my child for the donation?

Yes, you may accompany your child through all the donation stages to support your child. If your child is below 21 years old, your consent is also required at stage 1 and 2.

### Q. Do I have to pay for any of the tests and other costs?

All medical expenses related to the donation will be covered by BMDP. Travel expenses incurred will also be reimbursed. Loss of income will not be compensated. However, medical leave will be provided for all visits to the hospital in preparation for the donation. Hospitalisation leave will be granted during the donation and post donation, subject to the doctor's assessment. If your child is required to inform his school or employer in writing, BMDP can provide a letter at the work-up stage detailing the work-up and donation dates.

### Q. Is my child covered under insurance?

BMDP covers our donors for the extremely rare event of coma, disablement or death related to the donation. Should your child require any medical attention for any condition related to the bone marrow donation, all medical costs will be covered by BMDP.