



**BLOOD CANCER**

Connect & Learn



# **Stem Cell Transplantation: Progress & Patient Journey**

**Alexandra Conchie and Stephanie Tate**



## Alex Conchie

Alex Conchie, is an oncology nurse with experience in stem cell transplant, intensive care and palliative care. In her current role as a BMT-IEC Clinical Coordinator at Princess Margaret Cancer Centre, Alex supports patients receiving autologous stem cell transplants and CAR-T therapy. Alex is passionate about patient education and helping patients and their families navigate complex treatments.



## Stephanie Tate

Stephanie Tate (Grzelak) is an Oncology Nurse and Clinical Coordinator for the Transplant and CAR T program at Princess Margaret Cancer Centre. Having cared for patients across their care trajectory, Stephanie advocates for early access to resources and programs aimed at both preparing patients for treatment and navigating survivorship.



# Stem Cell Transplantation: Progress and Patient Journey

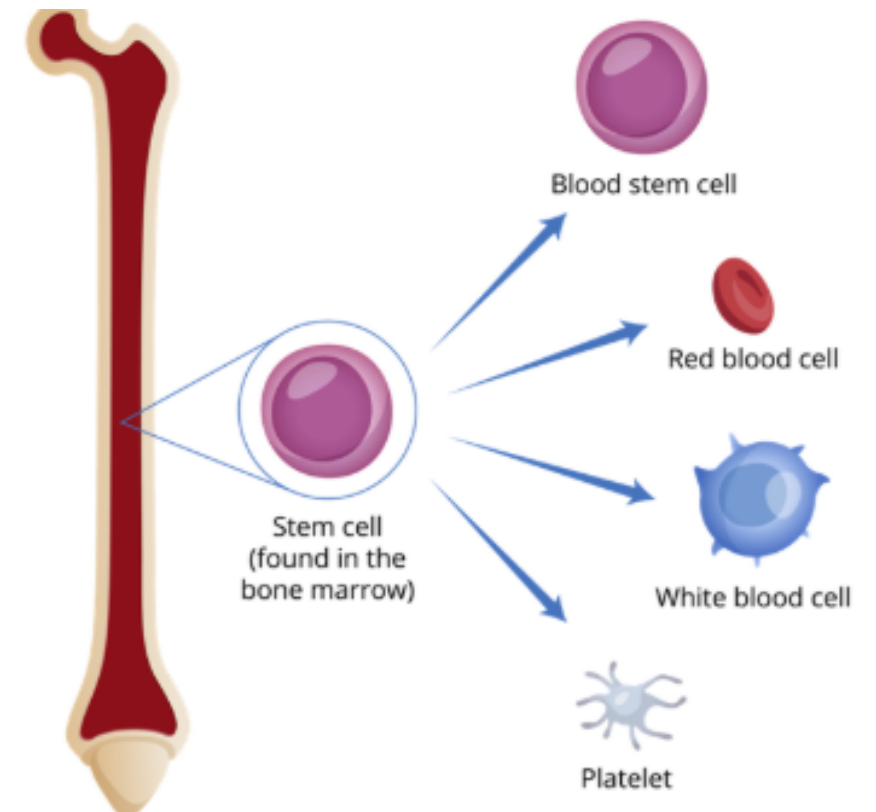


Princess Margaret Cancer Center, Toronto

# What are Stem Cells?

Stem cells are basic cells that can make other types of cells.

Blood stem cells (called hematopoietic stem cells) make new blood cells in your body. Blood stem cells can also repair your bone marrow.



# What is a Stem Cell Transplant?

A **stem cell transplant** uses stem cells to replace cells that are not working in your body with new ones. Stem cells are basic cells that evolve and become other types of cells.

There are two types of stem cell transplant: **Allogeneic and Autologous**

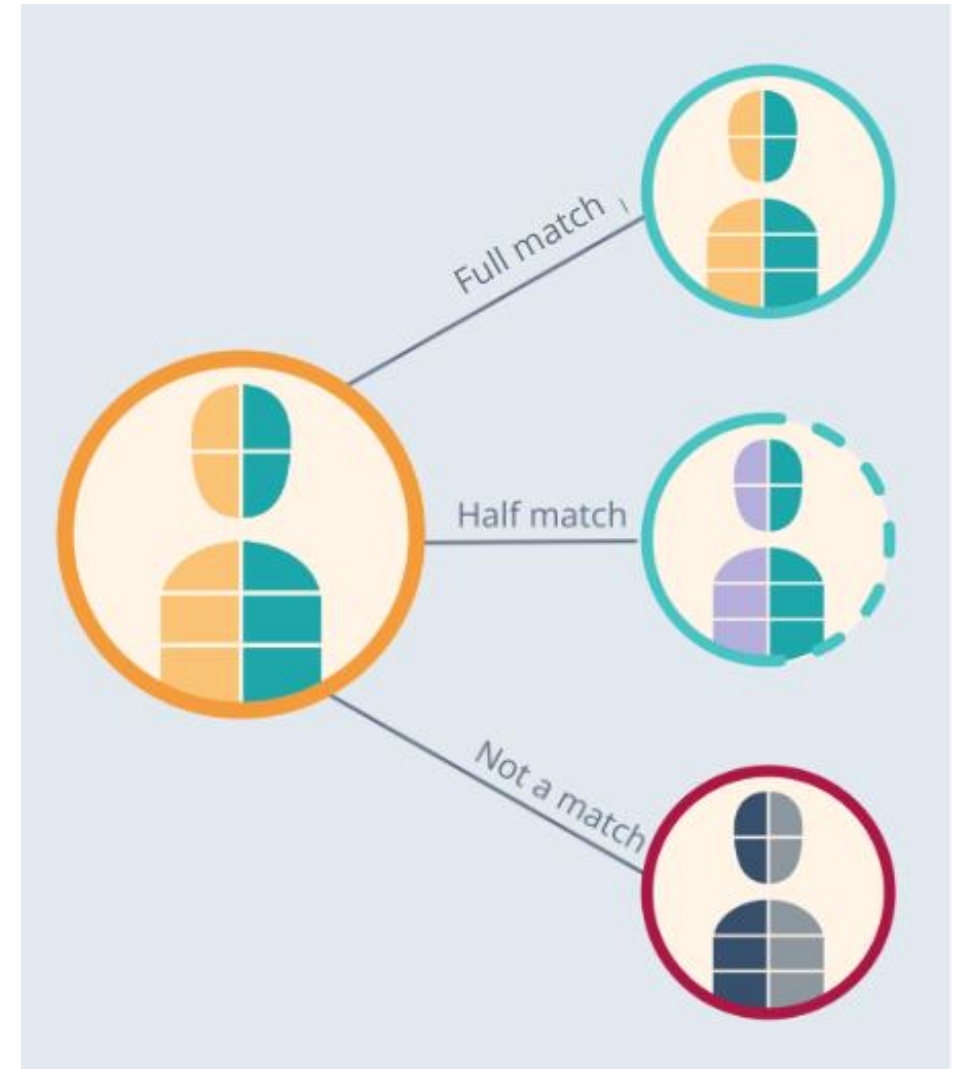
**Allogeneic Stem Cell Transplants** replace the patient's stem cells with donor stem cells

- Used to treat **leukemia, some types of lymphoma, sickle cell disease and aplastic anemia.**

**Autologous Stem Cell Transplants** use the patient's own stem cells, to replace stem cells that have been damaged by high-dose chemotherapy.

- Used to treat multiple myeloma, lymphoma, and germ cell tumours.

# Allogeneic Stem Cell Transplant: Finding a Match

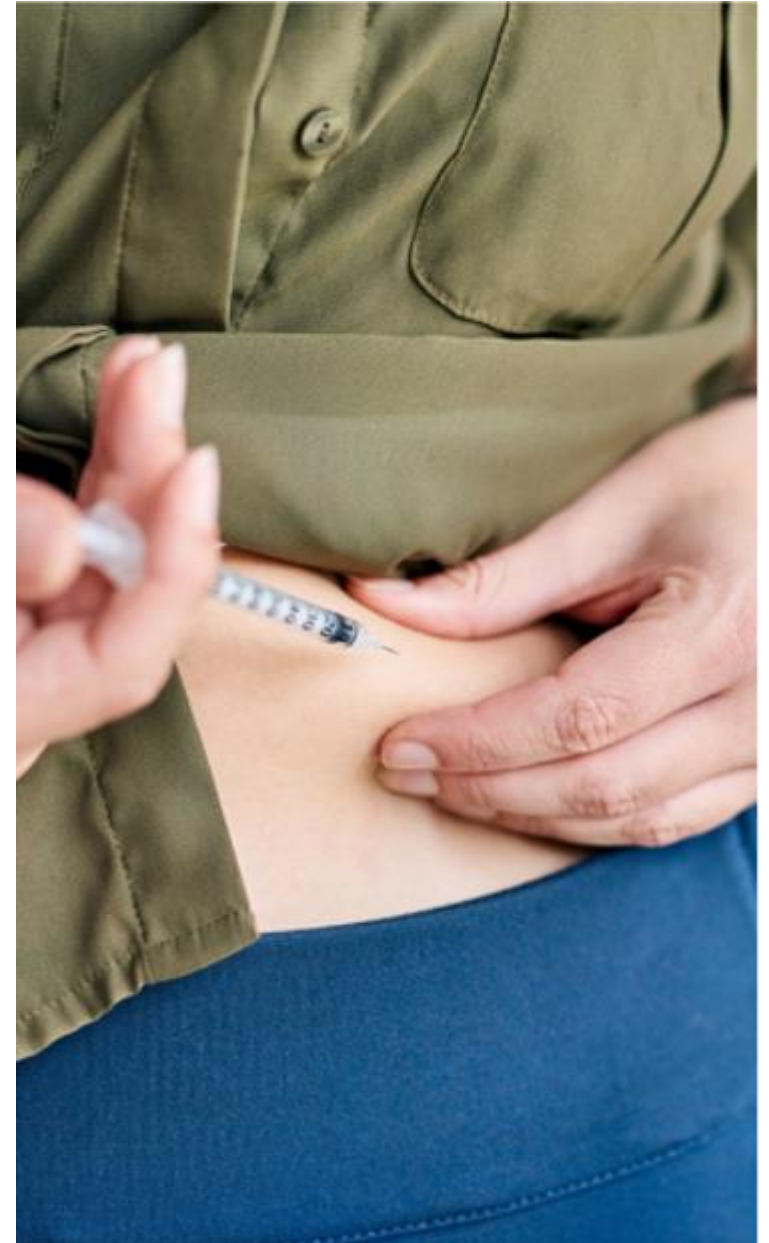




# Stem Cell Mobilization

A process that uses **growth factor injection**, sometimes in combination with chemotherapy, to create extra stem cells

Moves stem cells from the bone marrow into the blood, where we can **collect** them



# Apheresis: Stem Cell Collection





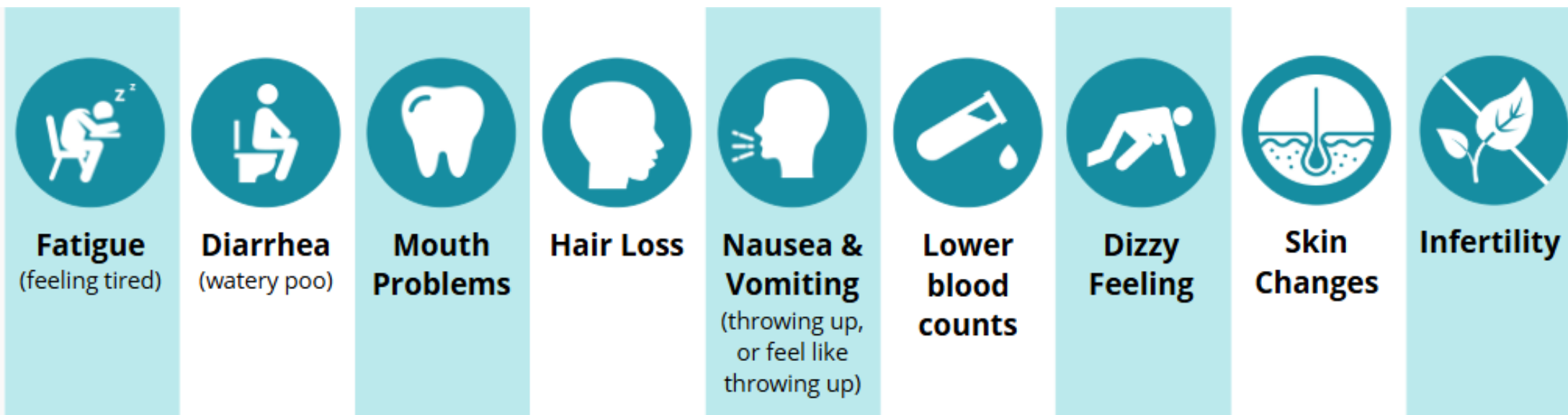
# High-Dose Chemotherapy

Kills cancer cells

Makes room in the bone marrow for harvested stem cells



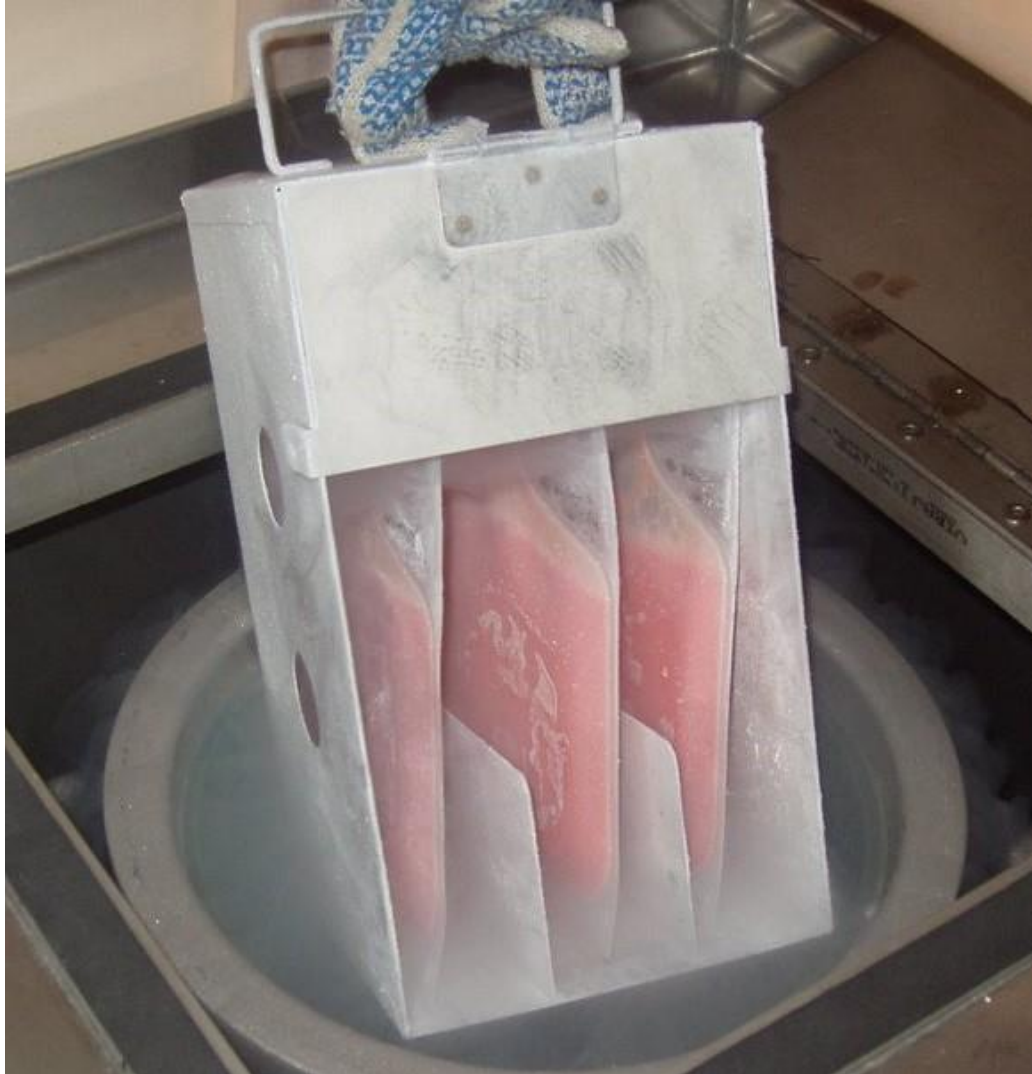
# High-Dose Chemotherapy: Side Effects



“Acute” or short term side effects

“Late” or long-term side effects

# Stem Cell Infusion





# Engraftment

Recovery of the bone marrow, after stem cell infusion

Typically expected 12-14 days after infusion



white blood  
cells



platelets



red blood  
cells

# Complications and Long-Term Concerns

Infection

Bleeding

Organ Function

Graft-vs-Host (Allogeneic only)

Fertility

Secondary cancers

Quality of life and survivorship

# Getting Started: The Pre-Transplant Process

Your oncologist will refer you to a transplant center

## The Pre-Transplant Process

There are 3 steps involved before transplant:



**Pre-transplant  
Consult**



**Pre-admission  
Tests**



**Pre-transplant  
appointment**





# Pre-Transplant Consult



## Step 1: The pre-transplant consult

You will have a consult (meeting) with the transplant team to discuss your case. The consult is to help you:

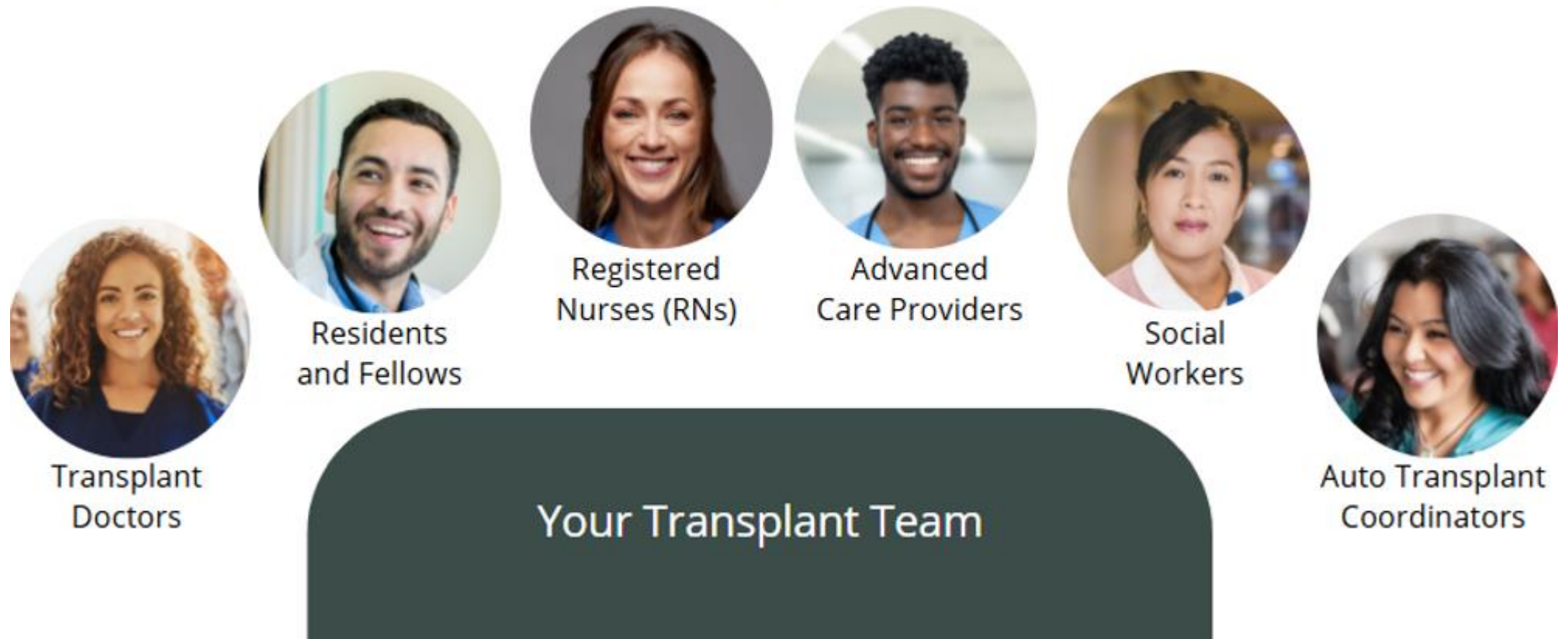
- Learn what a transplant is
- Know if you need a transplant
- Decide if you want a transplant

At the consult you will meet your transplant doctor and nurse coordinator. On the day of your consult:

- Bring a friend or family member with you if you can
- Bring a pen and paper to make notes



# Pre-Transplant Consult



Important to identify barriers to:

Transportation

Drug coverage

Lodging

Identifying a caregiver

# Pre-Transplant Tests



## Step 2: The pre-admission tests

Pre-admission tests will be booked after you and the transplant team decide you will have a transplant.

These tests give a current and detailed look at your main disease and overall health status.

### Main disease status

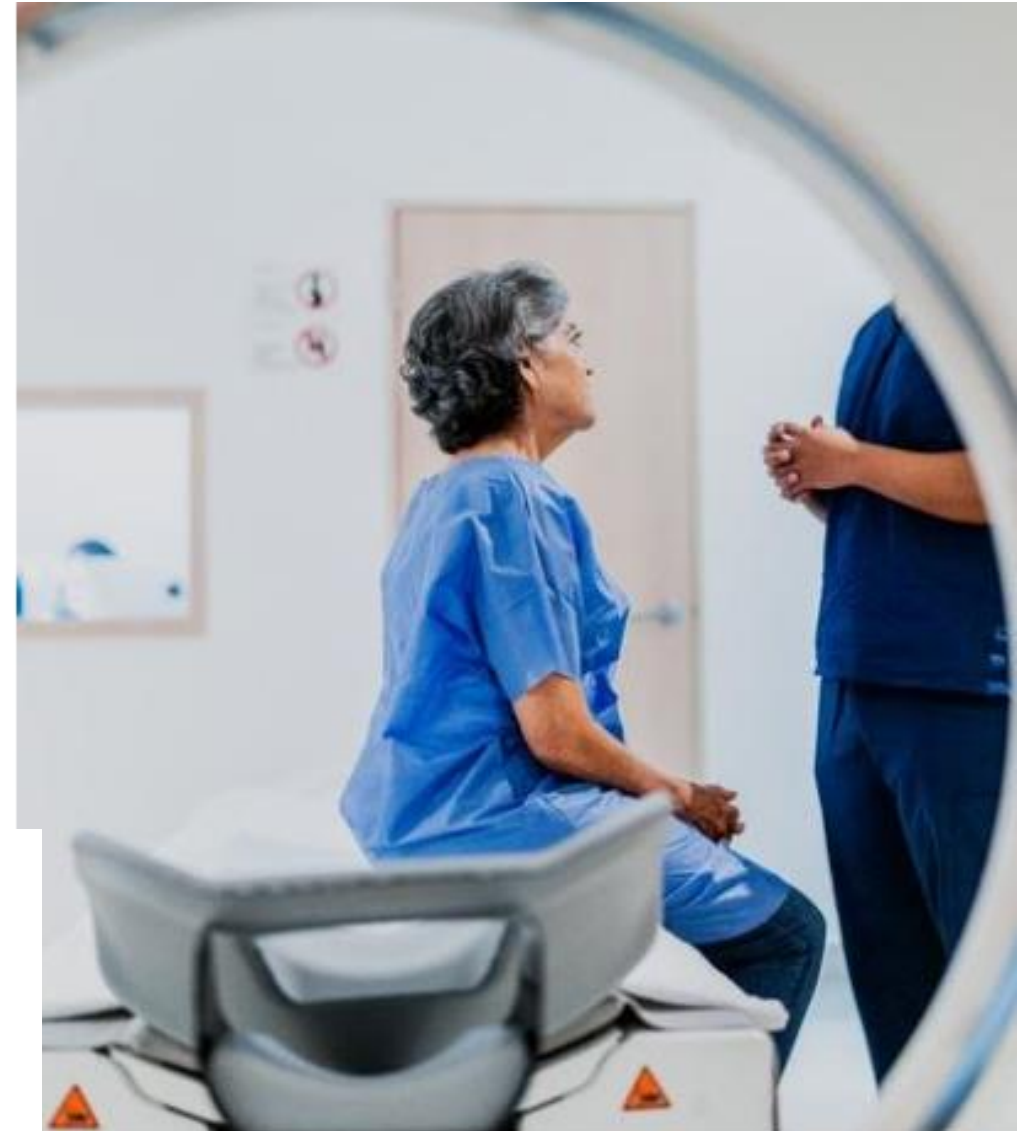
The pre-admission tests will:

- Show if your main disease is under control
- Confirm that transplant is the best choice for you

### Overall health status

The pre-admission tests will:

- Show if you are healthy enough for a transplant
- Prepare your doctor to treat complications that may arise
- Be compared with test results after transplant to track progress





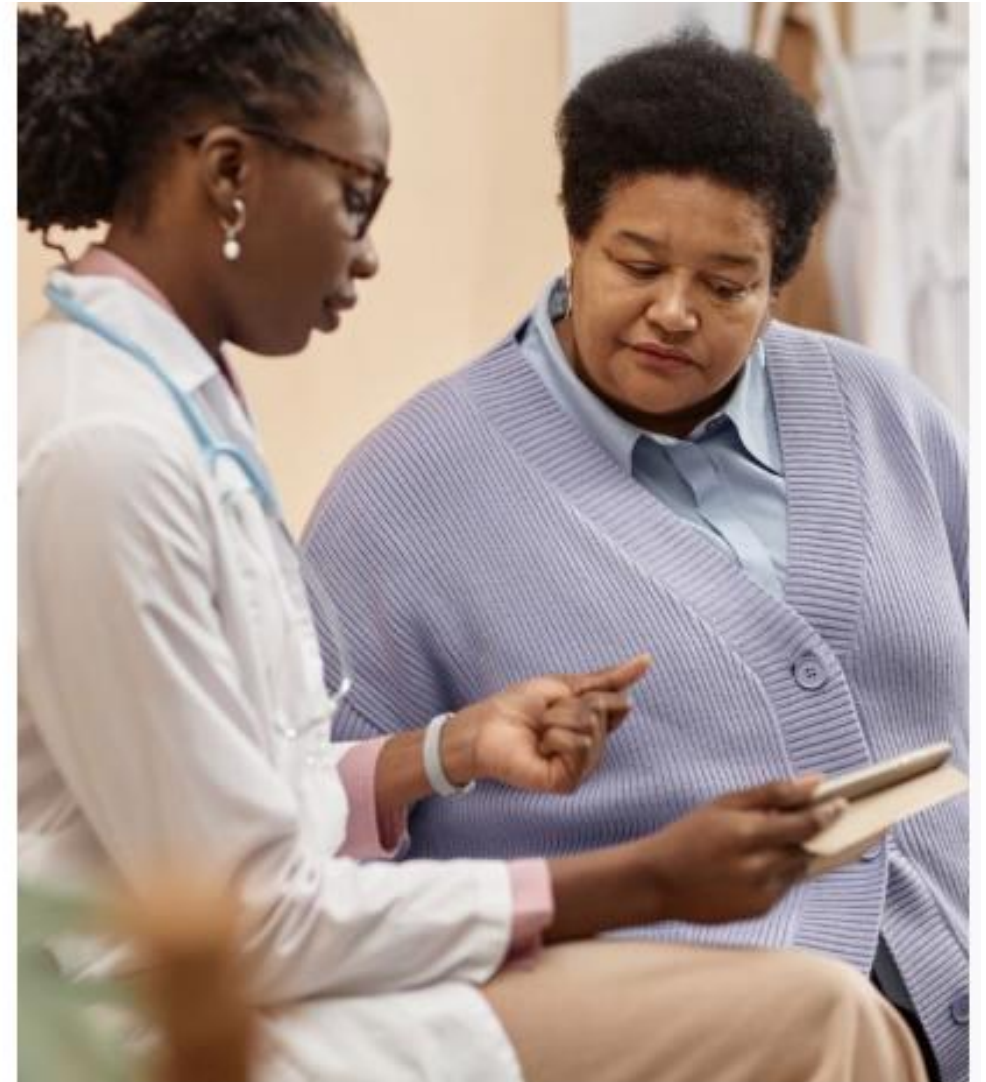
# Pre-Transplant (“Clearance”) Appointment



## Step 3: The pre-transplant appointment

At your pre-transplant appointment:

- Your transplant team will discuss your test results with you (if the results are ready)
- You can ask any questions you have
- You will confirm if you want to proceed with the transplant
- If you agree to transplant, you will sign consent forms



# Caregivers: An Integral Part of the Transplant Journey

A **Caregiver** is someone who:

- Supports and cares for a patient
- Helps with daily needs
- Keeps the patient safe during and after treatment

## How to choose a caregiver

When you are going through an auto transplant, you will not feel well. Plan to have help to get through this hard time.

Someone you trust

Someone who speaks the same language you do, and can help with translation

Someone who can stay with you overnight

Someone who can accompany you to appointments

# Caregiver Role in Outpatient Transplant

A caregiver for someone having an **outpatient transplant** must be:

- With the patient **at all times** in case they need help or are not feeling well. For safety, gaps during the day should be no longer than 2 hours
- Able to drive or plan rides with the patient to daily outpatient visits
- Someone the patient feels comfortable with
- Able to commit to helping the patient during and after transplant for 2-3 weeks. Caregivers are often not able to work during this time
- Able to understand the transplant process
- Fluent in the same language as the patient, in case translation is needed





# Caregiver Role in Inpatient Transplant

A caregiver for someone having an **inpatient transplant** must be:

- Able to support the patient after they have been discharged from hospital
- Able to drive or plan rides with the patient to follow-up visits
- Someone the patient feels comfortable with
- Fluent in the same language as the patient, in case translation is needed



# Planning for Caregivers

## How to choose a caregiver - step 1

List out the tasks that will need to be done.

## How to choose a caregiver - step 2

Decide which tasks you feel you want or need to do yourself. Listing your tasks **first** will help you let go of those that are less meaningful to you.

This process of listing what you want or need to do yourself helps ensure you will have the energy to do what matters.

You can leave the rest for your caregiver or caregiving team. For example, you want to manage cooking for yourself. Perhaps you have a special diet or love cooking. Doing the laundry is not as important to you. You can think about who could help you with laundry.



# Planning for Caregivers

## How to choose a caregiver – step 3

Next, think about can help with each task. Add your reason and the best way to reach this person to your list.

Task that needs to be done	This is something I prefer to do myself	This is something I would like help with	Person or people who may be able to help and why	Contact information
Prepare meals for myself and my kids	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Me, I love cooking and it relaxes me	--
Pick up groceries	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Bob, he has a big car	647-556-5555
Clean and fold laundry	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Janet, she knows what I like to hang versus dry	416-555-5555

# Tips From People who have had a Transplant

The more knowledge you have, the better questions you will ask

Learn all you can about transplant before your pre-transplant consult

Think about some questions you would like to ask your transplant team

Write these questions down so you do not forget them

Bring a notebook and a pen to your clinic appointment

Write key points down so you can recall them later



# Resources

## **PMCancerClasses.ca**

Available to anyone, anywhere!

## **Lymphoma and Leukemia Society of Canada**

First Connections Peer Support for patients and caregivers

[www.bloodcancers.ca](http://www.bloodcancers.ca)

## **Myeloma Canada**

Peer Support

[assistance@myeloma.ca](mailto:assistance@myeloma.ca)

## **Wellspring**

Money Matters – a case manager is available to help navigate benefit programs [www.wellspring.ca](http://www.wellspring.ca)