



Autologous Stem Cell Transplant

WELCOME!

Welcome to the NYU Medical Center Autologous* Stem Cell Transplantation Service. You and your family/care partners will spend 3 to 4 weeks here for your transplant. Our hospital staff wishes to make your experience as comfortable as possible. This handout will help you understand more about autologous stem cell transplantation and the measures that must be followed during your transplant. You will learn how you and your family/care partners can help with this care. Your doctors and nurses will review this handout with you and answer any questions you may have. Your social worker will be talking with you about any concerns you may have. Your nutritionist will be working with you to check your nutritional status.

**Autologous means from you*

Autologous Stem Cell Transplant:

Stem cells are baby cells that become grown up red blood cells (RBC), white blood cells (WBC), platelets, and more stem cells. The type of cell that a stem cell will grow into is decided by the needs of your body. Stem cells live in the bone marrow, which is the space inside your bones.

In an autologous stem cell transplant, your stem cells are taken from your blood (*harvested*), stored until needed, and given back to you (*transplanted*) after you have received high dose chemotherapy. They will then move to your bone marrow and start to develop (*engraft*) into new, healthy red blood cells, white blood cells, and platelets.

High dose chemotherapy wipes out your bone marrow. By giving you back your harvested and stored stem cells, your body will be able to make healthy new blood cells and your blood counts (RBC, WBC, and platelets) will slowly recover.



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Before Transplant:

Tests

Before you are admitted to the hospital for your stem cell transplant, you will need to have some tests done which will tell us how your body is working. Some of the tests you might have include:

- Blood tests
- Echocardiogram or MUGA scan or Gated Blood Pool Scan
- Pulmonary function tests (PFTs)
- CT scans for non-Hodgkin's lymphoma and Hodgkin's disease
- Other tests if needed

Intravenous Access

A *long-term intravenous (IV) catheter* is a narrow, flexible tube that is placed in your vein when you are admitted to the hospital or on the day before your transplant. This catheter will make it easier for the nursing staff to draw your blood and to give you fluids, medications, blood products, and nutritional support. Mediports cannot be used during transplant since they would be an additional source of infection if accessed.

Dental Evaluation

Decayed teeth and gums are common sources of infections in patients going through stem cell transplant. All possible causes of oral infection (cavities, gum disease, etc.) should be found before your transplant. A dental checkup by your dentist before you come to the hospital is suggested. However, no major dental work should be done at this time.

Packing

What you can/should bring:

- Clean, comfortable clothes
- Posters, pictures, etc. to help make the room feel more like your own
- Sheets and/or blankets from home to help make your bed feel more comfortable and like your own
- A calendar to 'count down' the days until your discharge
- Food, which you can store in the refrigerator in your room.



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- Entertainment such as books, magazines, portable CD player, etc., but not so much that it will clutter the room.

DO NOT bring:

- Stuffed animals
- Flowers and/or plants because they can carry bacteria.
- Cell phones and laptop computers because these interfere with the electronic equipment in the hospital and are not allowed
- Blenders, electric razors, or other electrical equipment that needs to be plugged in to use. You will be able to use a microwave oven on the nursing units.

The Transplant

Admission

When you arrive at NYU Medical Center, you will go to the admitting department to register.

Tisch Admitting is located on the **1st** floor of **560 First Ave.**, Tisch Hospital building. You will then take the 'A' elevators up to the 16th floor and make a left turn onto **16 East**.

You do not need to be placed in a private room as soon as you are admitted. Isolation may begin on the day before you get your stem cells back (Day -1) OR when the absolute neutrophil count (ANC) is less than 500 (whichever day comes first).

When you arrive onto the unit, you will be seen and examined by your doctors and nurses. During your hospital stay, you will meet other members of the healthcare team such as social workers and nutritionists who will all aim to make your stay as pleasant as possible.



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Phase I

Phase I starts when you arrive at the hospital and continues until you get your stem cells back (Day 0). This is the time when you will get your chemotherapy and start isolation.

Within the week before your transplant you will receive chemotherapy. This chemotherapy will be much stronger than what you have received in the past. Your nurse will provide chemotherapy information sheets and review them with you.

Chemotherapy may upset your stomach. You will be given medicine before the chemotherapy to help prevent nausea and vomiting. If you still feel sick, ask your nurse for more medicines that can help you feel better.

You will be given a break from chemotherapy for one or two days before your transplant. This rest period will give your body time to recover and rid itself of some of the chemotherapy that could harm the new stem cells you'll be receiving.

Once you enter your private room, you will be considered to be in 'reverse isolation'. This means that we are protecting you from any germs that are outside you and your room. **Everyone** who enters your room **must** wash their hands in your bathroom sink.

Phase II

Phase II starts when you get your stem cells back (Day 0) and ends when your blood counts start to recover (about Day +14). This phase usually lasts about two weeks. During this phase you may not feel so great. You are probably now experiencing the side effects of the chemotherapy.

Fatigue

You may want to sleep a lot because many things can make you feel tired. Your body is working overtime to heal itself. Your red blood cell count may be low. You are probably not sleeping as well as you did at home and medicines that treat nausea and pain can cause sleepiness.



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To help you feel better, take naps often, get out of bed to sit in the chair, move around in the room. Activity can actually give you energy. You will be getting red blood cell transfusions because your new stem cells have not started to work yet.

Bleeding

Since your new stem cells are not working yet, your platelet count will be low and you can bleed easily. You will be getting platelet transfusions to help prevent bleeding.

To help prevent bleeding, avoid scratching or picking your nose. Avoid blowing your nose too hard. Do not use a toothbrush to brush your teeth. The nursing staff can provide you with *toothettes*. Do not floss your teeth. Be careful when moving around in your room. Avoid sharp objects and corners. Avoid clipping nails.

Fevers

Since your new stem cells are not working yet, your white blood cell count will be low and your body will not be able to defend itself against germs. Fevers may be a sign of infection and are very common during transplant. If you develop a fever, you will be given antibiotics to help your body fight any infection. Different antibiotics fight different germs, so you will probably be given more than one antibiotic. You will also remain in isolation during this time. You should wear a mask when you go outside your room to avoid any airborne infection.

To help stay 'infection-free', teach your visitors about isolation and hand washing. Bathe daily. Follow a diet in which you **avoid** the following:

- raw vegetables (salads)
- fruits that cannot be peeled
- take out foods
- raw eggs and fish, and aged cheeses
- non-pasteurized milk and juices.

If you feel like eating, the hospital will prepare your food using these guidelines.



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Mouth Problems

Because of the chemotherapy, you may develop sores in your mouth and throat (*mucositis*). This may be painful and may require pain medicine, which will be given through your IV. Because of the mucositis, you may not feel like eating or drinking. You will receive nutrition through your IV (*total parenteral nutrition* or TPN).

To help yourself feel better, rinse your mouth every hour while you're awake on the days of chemotherapy. If you feel like eating, try soft, bland foods. Ask your nurse for pain medication if you are having mouth pain.

Diarrhea

Chemotherapy can irritate your stomach and intestines, which can lead to diarrhea. Intestinal infections can also cause diarrhea. As your body heals from your transplant, you will begin to feel better.

To help yourself when you have diarrhea, you can ask the nurse for a portable toilet at the bedside if it becomes hard to make it all the way to the bathroom. You can also avoid milk products and greasy or spicy foods.

Skin changes

Some chemotherapy drugs can darken your skin and nails and cause your skin to become more sensitive to the sun.

You should protect your skin after leaving the hospital by avoiding the sun between 10am and 3pm if possible. Wear protective clothing and hat even on cloudy days. **Always** apply sunscreen with SPF 15 or greater at least 15-30 minutes before sun exposure and as often as needed.

Hair loss

You may have hair loss already if you previously received chemotherapy. If you are receiving chemotherapy for the first time, your hair may begin to fall out about a week later.

You may want to cut your hair shorter or shave it off so it is not such a drastic change. Avoid daily shampooing. Allow the hair to dry naturally rather than blow-drying. Remember, your hair **will** grow back.



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Phase III

Phase III is the recovery phase. Most of this phase is done at home and can take a few months. Your blood counts are now up and your stem cells are doing their job in your bone marrow to make lots of new cells. It is during this phase that you are discharged from the hospital.

Your doctor and nurse will give you discharge instructions upon leaving the hospital. These include when to call the doctor for emergencies, when to return for follow up visits with your doctor, etc.

Laundry while in the hospital

Your family/care partner may need to do laundry while you are in the hospital. If they do not want to take everything back and forth to your home, they can use the laundry room located in 4th floor North corridor of Rusk Institute within the Physical Therapy wing. The washers and dryers accept only quarters and are open 24 hours a day.