



# What to Expect on Day “0” Single/Double Cord Stem Cell Transplant

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## What is day zero?

Day Zero is the day you receive your new stem cells. This handout will describe in detail what you can expect to occur on this day.

## Where will the procedure take place?

- Your transplant will take place in your room with you lying in bed. You may have visitors with you, as long as they are not sick.

## How will I prepare for the procedure?

- You may want to eat a light lunch or postpone lunch until after transplant.
- You will receive Tylenol® and Benadryl® prior to the procedure. You may also receive anti-nausea medications if needed. Patients with blood types that are different or incompatible to donor’s blood type will get additional premeds, which may include IV hydration with sodium bicarbonate, steroids and diuretics.

**Sodium Bicarbonate:** A medication added to IV fluids to help neutralize acid.

**Steroids:** A medication that can be used for many purposes. We give this prior to your stem cell infusion to suppress your immune system and prevent a reaction.

**Diuretics:** A diuretic is any substance that promotes the production of urine. We give this to help your body get rid of the excess IV fluid you are receiving.

## What will happen during the infusion of stem cells?

- The blood bank will deliver your stem cells to your room. There will be a double check performed between the transplant technician and staff member infusing your cells to ensure that you are receiving the correct cells.
- Your cells will be delivered to your room in one of two ways:
  - **Frozen:** Your stem cells will still be frozen, or cryopreserved, and will be thawed at your bedside in a body temperature water bath.
    - Your cells will be in a bag that looks similar to blood. They will be connected to, and infused through, your central line. The staff member infusing your cells will use a syringe to help facilitate delivery of your cells promptly. The cells cannot be run through a pump and need to be infused within 12-15 minutes of thawing. This will prevent the cells from breaking down at room temperature.
  - **Thawed:** Your stem cells will be thawed in the lab and delivered to your room ready to infuse.
    - Your cells will be in a bag that looks similar to blood. They will be connected to your central line and infused similar to blood products.
- If you are receiving a double cord transplant, the blood bank will bring your stem cells to your room at two separate occasions; similar to if you were receiving two separate transplants.
- Your nurse will coordinate the times of infusions. If you are receiving a double cord transplant, the second cord blood will be infused at least 30 minutes following first cord blood, but no longer than six hours following first cord blood. Please note that you may need additional pre-medications before your second infusion.

- The stem cell bag(s) will be rinsed when empty to help capture all of the stem cells.
- Your transplant will last about 15 to 30 minutes, but may take longer depending on the volume that needs to be infused.
- We will monitor you closely during your infusion, and will take vital signs frequently.

### **What are the common side-effects?**

After stem cells are collected from the umbilical cord they are mixed with a preservative called Dimethyl Sulfoxide (DMSO). After the cells are mixed with DMSO they are frozen. This preservative may cause some side-effects during the infusion, including:

- Taste of garlic or cream corn in your mouth. Others may smell the DMSO preservative on your breath for up to 48-72 hours following transplant. Mints will be provided to help mask the taste/smell.
- Tickle in your throat or a cough - mints will be provided to help ease symptoms.
- Facial flushing.
- Shortness of breath.
- Tingling in chest, extremities (leg, arms and hands), and face.
- Heaviness in your chest or a feeling of pressure in your chest.
- Nausea and/or vomiting
- Back or flank pain.
- Headache.
- Chills, shivers or shakes, also called rigors.
- Itchiness and/or redness of the skin.
- Change in vital signs: fever, increase in blood pressure and/or heart rate. They may also be a decrease in oxygenation and we may temporarily place you on oxygen.

- Red or pink tinged urine may occur due to the breakdown of remaining red blood cells during your stem cell infusion. You will get IV fluids to help flush your kidneys. This side effect should subside within 24-48 hours.

Side effects can be treated by slowing the infusion down. We will closely monitor vital signs during your stem cell infusion and will adjust the pace as needed.

The medications you received prior to the procedure, will help to prevent serious transfusion reactions such as:

- Fever.
- Shortness of breath.
- Swelling of the throat.
- Itching/hives.

If this happens we would stop your infusion and manage your symptoms. Once this procedure is completed, it is very unlikely you will have any more reactions.

### **What happens after transplant?**

After the transplant, patients are often tired from the pre-medications and lack of sleep in anticipation of the procedure. Taking a nap can sometimes make you feel better.

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