



# Mononuclear Cell (MNC) Collection

## Instructions for Patients

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### Preparing for the MNC collection

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- **Drink fluids:** It is important to drink plenty of non-alcoholic fluids the day before the collection to help ensure adequate hydration. Being well-hydrated may help you to tolerate the procedure better and also helps to make veins more accessible.
- **Increase calcium intake:** The leukapheresis procedure used to collect the cells requires the use of a citrate solution, called ACD-A, to prevent clotting of your blood during the procedure. Citrate works by binding calcium in your blood, which may result in symptoms of low calcium, such as numbness and tingling in your face, around your mouth and in your fingers. Increasing your calcium intake for a few days before the leukapheresis procedure may help to counteract potential citrate reaction. For example, you may:
  - Take oral calcium supplements, such as Tums® or Viactive®
  - Eat or drink calcium-containing dairy products, such as yogurt, milk, cheese and ice cream
  - Consume other products high in calcium, such as cornmeal, broccoli, collards, rhubarb and some cereals

If you are unable to keep your scheduled appointment, please contact your doctor or as soon as possible

- During normal office hours, contact your doctor
- After normal office hours, contact

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### The day of the MNC collection

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Your cell collection may take three to four hours. To ensure your comfort during the procedure:



**Wear comfortable, loose-fitting clothing:** Pants with an elastic waistband; short sleeves, if using veins; and a shirt that buttons up the front, if you have a central venous catheter (CVC).



**Limit your fluid intake on the day of your appointment:** Especially limit the intake of caffeinated beverages, such as coffee, tea or soft drinks. You may not have access to the restroom during your procedure, particularly if the veins in your arms are used. A urinal or bedpan will be available for you to use if necessary, and the staff can assist you.



**Eat a healthy breakfast and/or lunch prior to your appointment:** A healthy meal is important, but avoid foods that are high in fat.



**Take a calcium supplement:** The Red Cross apheresis center will have oral calcium supplements available—however if you have a preferred flavor or type, you may bring your own to the apheresis center.



**Arrive at the collection center approximately 30 minutes prior to your appointment time:** Late arrival may require your procedure to be rescheduled as the process of collecting your cells and shipment is time sensitive.



**Bring your ID:** To prevent delays in starting your procedure, bring the same identification you used in your doctor's office. We are required to ensure that all of the labels for your product match your ID. If there is a discrepancy, we cannot start your procedure until it is resolved.



**Bring your entertainment if you wish:** The apheresis center will have a TV and may have a DVD player. A selection of movies may be available or you can bring your own. You may also bring personal items, such as music players. Please keep in mind that if veins in your arms are used for the procedure, you will not have use of your arms. If you have a CVC in place, you should have full use of your arms.

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### During the MNC collection

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You may feel chilled during the procedure—this is normal. The apheresis center will have blankets for your use. You may want to bring or wear socks as your feet may also get chilled.

We want to ensure that you are comfortable during the procedure. If at any time you are uncomfortable or have questions, please inform the Red Cross staff immediately.

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### After the MNC collection

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If your arms were used for venous access, keep the bandage in place for at least three hours.

Bruising or pain at the site of the needle may occur after MNC collection. The area below the skin may be flat or it can swell below the skin. The bruised area will change colors (red, green, yellow) and will take several days to heal. If you develop a bruise:

- Apply ice pack on and off for 10 to 15 minutes at a time during the first 24 hours.
- On the second day, apply warm moist heat to the area for 10 to 15 minutes at a time, using warm compresses or soaking in warm water.
- If your doctor approves, you can use over the counter pain medications (for example acetaminophen) that do not contain aspirin, for pain.

Call us at \_\_\_\_\_ or call your physician if:

- You experience tingling or numbness in your fingers or arm.
- You observe redness, swelling or pain where the needle was.
- You observe red streaks extending from the bruise site.
- Your symptoms worsen.

If you have a CVC in place, we will flush it at the end of the procedure. You should have instructions from your doctor's office about caring for the catheter between procedures. If you were not given instructions for care of your central venous catheter, please contact your doctor.

You should be able to resume normal activities after your procedure. Please avoid strenuous exercise or heavy lifting for a period of 24 hours after your procedure.

If you experience long-lasting side effects after your procedure, contact your doctor; or for severe side effects seek immediate medical attention. If you have any questions related to your MNC collection procedure, please contact

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### Directions to the Red Cross donor center

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**American Red Cross**