PET/CT Scan for Cardiac Inflammation

How to prepare for your scan

This handout gives special instructions for patients who are having a cardiac PET/CT scan to look for cardiac inflammation such as sarcoidosis. You must follow these instructions for us to do your scan.

What is a PET/CT scan?

You are scheduled for a positron emission tomography/computed tomography (PET/CT) scan of your heart. This scan will check the blood supply to your heart and show if there is any inflammation.

You will receive 2 injections of a radioactive tracer for this scan. The 1st injection will show the blood flow to your heart muscle and help us take clear pictures of your heart. The 2nd injection will show areas of inflammation. It is very rare to have allergic reactions to these tracers.

A PET/CT camera takes 2 types of pictures:

- The PET scan shows where the tracer has collected in your body.
- The CT scan provides detailed pictures of your heart tissues and structures.

The PET/CT scan will show if areas of your heart are inflamed. One of the many things that can cause inflammation in the heart is sarcoidosis.

How should I prepare for the scan?

- You MUST follow the important food and drink instructions on page 3 of this handout starting the day before your scan.
- Starting 2 days before your scan, do not take any liquid or lollypop medicines. Call us if you have any questions.
- You may take all other non-liquid medicines.
• Call the Nuclear Medicine Clinic at 206.598.4240 if it is hard to place an *intravenous* (IV) line in your arm.

• **You will need to lie flat on your back for 2 hours for this scan.** If you feel that you cannot do this, please tell your healthcare provider or call the Nuclear Medicine Clinic at 206.598.4240 before the day of your scan.

**Food and Drink Restrictions**

For this scan, you **must** strictly follow the diet instructions on page 3. If you do not or cannot follow the diet, we will need to reschedule your scan.

The reasons for the diet restrictions are:

• All cells in your body need energy to work well. Healthy heart muscle cells use *glucose* (sugar) as their main source of energy. When you do not eat foods that provide your body with glucose, healthy heart muscle cells start to use fat as their fuel supply instead of glucose. But, inflamed heart muscle cells cannot use fat for fuel. Inflamed cells can only use glucose as their main source of energy.

• By following the diet restrictions, you deprive your body of glucose. When you do this, your healthy heart muscles cells will start to use fat for energy. Your inflamed heart cells will use glucose for energy.

• For the part of this scan that looks for inflammation, radioactive glucose is injected into your vein. Only the inflamed areas of your heart will take up this radioactive glucose. The pictures of your heart we take on the PET/CT camera will show where the radioactive glucose is.

**The Entire Day Before Your Scan**

**You MUST follow the food and drink restrictions starting the day before your scan.** The boxes on page 3 list what you can eat and drink:

• The **entire day before** your scan (Step 1)

• Starting **midnight the night before** your scan (Step 2)

Call us at 206.598.4240 if you have questions about what you can and cannot do before your scan.

These food and drink restrictions are VERY important. If you eat or drink any foods that are not listed within the time frames in Step 1 and Step 2 on page 3, call us at 206.598.4240 to reschedule your scan.
## DIET STEP 1

You **must** follow this high-fat, high-protein, NO-carbohydrate diet the entire day before your scan.

### The ENTIRE DAY Before Your Scan

#### You May ONLY Eat:
- Plain* meat and fish without breading (beef, steak, pork, bacon, chicken, and all types of fish are OK)
- Plain* eggs
- Plain* nuts

*PLAIN means NO sauces, dressings, seasonings, or breading.

#### You May ONLY Drink:
- Water or plain black coffee (no sweetener, milk, or creamer added)

Do NOT eat or drink anything that is not on this list or we will need to reschedule your scan. Eating or drinking other items will affect your test results.

## DIET STEP 2

### Starting 12 HOURS Before Your Scan

- **Do NOT eat anything.**
- You may drink water or **plain** black coffee (no milk, cream, sugar, or anything else added).
- **If you have diabetes,** talk with your provider who manages your diabetes about how to adjust your diabetes medicines before your scan. This includes pills and insulin injections. **You should not take these medicines for 6 hours before your scan.**

## The Day of Your Scan

- **Please arrive on time.** The exact timing of this scan is very important. If you are more than 20 minutes late, we may need to reschedule your scan.
- Wear comfortable clothes.

## How to Find Us

The Nuclear Medicine Clinic is on the 2nd floor of UWMC. From the main lobby on the 3rd floor (main level):

- Take the Pacific elevators down to the 2nd floor.
- Follow the signs to Radiology.
- Check in at the Radiology front desk.
What to Expect

When you arrive at the Nuclear Medicine Clinic, a technologist will talk with you about what you can expect during your scan. **Plan to be at the hospital for up to 5 hours for this procedure.**

Here is what you can expect:

- An *intravenous* (IV) line will be started in your arm.
- The nuclear medicine technologist will inject a small amount of tracer.
- The technologist will use a PET/CT scanner to take pictures of your heart. This will take about 20 minutes. These images will show us how much blood reaches your heart.
- During this first set of images, a small amount of an *anticoagulant* (blood-thinning) drug called *heparin* will be injected into your IV. This makes it easier to see if there is any inflamed tissue in or around your heart.
- After these first images are taken, you will be injected with another radioactive tracer. You will need to remain lying on your back during this time between scans.
- More images of your heart will be taken 1 hour later. These images will take about 35 minutes.
- Before you leave, a blood test will be done to make sure your blood is clotting normally. This blood test may need to be done more than once. Allow 1 hour for blood testing after your PET scan.

Who reads the scan and when will I get the results?

A nuclear medicine doctor and/or nuclear cardiologist will read your PET/CT scan. Within 3 days, this doctor will send your results to your healthcare provider who referred you for this scan. Your provider will then share your scan results with you.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

UWMC Imaging Services: 206.598.6200
UWMC Nuclear Medicine: 206.598.4240