

PET/CT Cardiac Rest/Stress Perfusion Scan

What to expect

This handout explains how a PET/CT rest/stress perfusion scan of the heart works, how to prepare for it, what to expect during the scan, and how to get your results.

What is a PET/CT cardiac rest/stress perfusion scan?

PET stands for *positron emission tomography*. CT stands for *computed tomography*. A PET/CT cardiac rest/stress perfusion scan is a way to take pictures of blood flow to your heart muscle. We will take pictures when you are at rest and again after a stress test.

This scan is a nuclear medicine exam because it uses a radioactive *tracer*. The tracer will travel through your veins and help us see details of your heart. The scan is a form of radiology because radiation is used to take pictures of your body.

A PET/CT camera takes 2 types of pictures:

- The **PET scan** uses a tracer to show blood flow to your heart.
- The **CT scan** provides images of your heart and chest structures.

Together, the PET and CT scan will provide the images your provider needs to fully assess blood flow to your heart.



A nuclear medicine doctor will review your scan and send the results to your provider.

Why do I need this type of scan?

Used with other studies, this scan will show whether your heart muscle is receiving enough blood. This will help your provider assess your level of *coronary artery disease*.

How do I prepare?

- Some medicines can affect your test results. Ask your provider if you should stop taking any medicines before the exam.

- Some medicines you may need to stop taking on exam day are:
 - **Nitrates:** sublingual Imdur, Isomo, Isordil, Isosorbide, Nitrobid, NTG, and NTG patch
 - **Beta blockers:** Atenolol, Carvedilol, Labetalol, Metoprolol, Nadalol, and Propanolol
 - Medicines that contain **caffeine:** Midol, Excedrine, and others
- Call the Nuclear Medicine Department at 206.598.4240 if:
 - It is hard to place an *intravenous* (IV) line in your arm.
 - You cannot lie flat on your back for up to 30 minutes.
- *If you were assigned female at birth:* Tell your provider if you are pregnant or breastfeeding, or if there is any chance you could be pregnant.

Before Your Scan

If You Weigh More Than 100 Pounds

- **12 hours** before your scan:
 - Do **not** eat or drink anything that contains caffeine. This includes coffee, chocolate, and medicines such as Midol or Excedrin.
 - Do **not** drink decaf products, coffee, tea (even herbal), cocoa, or any kind of soft drink.

If You Weigh Less Than 100 Pounds

- **24 hours** before your scan:
 - Do **not** eat or drink anything that contains caffeine. This includes coffee, chocolate, and medicines such as Midol or Excedrin.
 - Do **not** drink decaf products, coffee, tea (even herbal), cocoa, or any kind of soft drink.

For All Patients

- **For 6 hours** before your scan:
 - Do **not** eat or drink anything except water.
 - If you are scheduled for an afternoon appointment, you may have a very light breakfast **before 7 a.m.** on the day of your scan.

- **For at least 4 hours** before your scan:
 - Do **not** smoke cigarettes, marijuana, or cigars.
 - Do **not** use electronic cigarettes, vaping products, or any form of nicotine.
 - Do **not** drink alcohol or use any other recreational drugs.
 - Do **not** chew tobacco.

Day of Your Scan

- Wear comfortable clothing and dress warmly. The room where you will be for the scan may be cold.
- Do **not** wear any metal on the day of your scan. This includes jewelry or clothes with zippers or snaps.
- Make sure that your appointment time works well for you. The exact timing of this scan is very important, so please arrive on time. If you are more than 15 minutes late, we may need to reschedule your scan.
- Plan to be in the Nuclear Medicine Department for about 60 to 90 minutes.

How is the scan done?

- When you arrive a technologist will prepare you for your scan.
- *If you were assigned female at birth:* **Before** the scan begins, tell the technologist if there is any chance you could be pregnant.
- We will:
 - Place an IV line in your arm.
 - Attach small patches called *electrodes* to your chest. These will monitor your heart during your *electrocardiogram* (ECG) test.
 - Ask you to sign a consent form that allows us to give you a stress test.
- We will then inject a small amount of tracer through your IV. It is very rare to have allergic reactions to this tracer.
- The PET/CT camera will take pictures of your heart for about 10 minutes. These images will show us the blood supply to your heart when you are at rest. After these images are taken, you will do the stress portion of the study.

- We will give you a medicine that increases blood flow to your heart. A nurse practitioner or doctor will monitor you during this time.
- After you receive this medicine, we will inject a second small dose of tracer through your IV. This allows us to take pictures of your heart when all of your blood vessels are fully relaxed. Taking these pictures will take another 10 minutes.

What will I feel during the study?

You may feel some discomfort during the stress study. The most common symptoms are feeling flushed, fullness in the chest or stomach, or shortness of breath.

A doctor or nurse practitioner will monitor you throughout the stress study. If needed, we may give you another medicine to help you feel better. You may leave only when you are feeling better.

What happens after the study?

- You may resume your normal activities right after the study.
- The radioactivity from the tracer will be gone by the time you leave the department.

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

A nuclear medicine doctor or a nuclear cardiologist will read your PET/CT scan. Within 3 days, this doctor will send your results to the provider who referred you for this scan. Your own provider will talk with you about the results of your scan.

You and your provider will decide the next step, such as treatment for a problem, as needed.

You may also read your results on your MyChart page. If you need copies of your images on disc, call 206.598.6206.

Questions?

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

UWMC - Montlake Imaging Services: 206.598.6200

UWMC - Montlake Nuclear Medicine: 206.598.4240