

Cardiopulmonary Exercise Stress Testing

The cardiopulmonary exercise stress test shows how your heart, lungs and muscles respond to exercise. It provides important information about your ability to exercise. Your results will be compared to others of your same age, gender and ethnicity to see if you have any cardiac or pulmonary limitations.

If you have any questions, please talk with your physician or nurse.


Your physician may use this information to diagnose and treat your symptoms. This test may also help in setting exercise guidelines that are right for you.

Before the test

Plan to arrive 15 minutes before the test is scheduled to begin. Take all of your medications unless your care team tells you otherwise. If you wear glasses, hearing aids or dentures, bring them with you for the test. Eat a light meal no later than 2 hours before your test. Do not drink coffee, tea or caffeinated beverages on the day of your test.

Be sure to bring:

- › A list of your allergies
- › A list of all your current medications (prescription, over-the-counter and herbal)
- › Photo ID
- › Medical insurance information
- › Medicare card (Medicare patients only)



Wear or bring comfortable clothing and shoes for walking on the treadmill. Lockers and showers are available for you to use.

Come to the 8th floor Reception Desk in Galter Pavilion, 201 East Huron Street. Parking is available for patients and visitors in the garage at 222 East Huron Street, across from Feinberg and Galter pavilions. For a discounted rate, bring your parking ticket with you. You can validate your ticket at the Customer Service Desks on the 1st, 2nd and 8th floors of Feinberg and Galter pavilions, and on the 1st floor of Prentice Women's Hospital.

During the test

The test is divided into 2 parts. You will first have pulmonary function tests (PFTs).


PFTs check and measure your ability for these lung functions:

- › How easily the air moves in and out of your lungs
- › The amount of air your lungs can hold
- › How much oxygen your lungs send to the heart

These tests will last about 30 to 60 minutes.

Once you finish the PFTs, the exercise portion of the test will begin. This portion of the test will take 45 to 60 minutes. The care team will use an electrocardiogram (ECG) to monitor your heart rate and rhythm. You will need to undress from the waist up and wear either a hospital gown or your own T-shirt.

The care team will put electrodes (sticky patches) on your chest. It is important that the electrodes have good contact with your skin, so they may shave the electrode placement areas if needed. They will rub these areas on your chest with a soft pumice gel. Then, they will clean the areas with rubbing alcohol to remove normal skin oils and residue. This procedure is not painful but may cause some skin redness that goes away within a few hours after the test. Once the electrodes are in place, the care team will attach monitor wires to each electrode. These wires connect to a box you will wear on a belt around your waist.



During the test, you will breathe through a plastic mouthpiece. The care team will use this to measure your lung function during exercise. They will put a small clip on your finger or ear to measure your blood oxygen level.

If you need blood tests, the care team will take blood samples from the artery near your wrist. They may insert a small, flexible catheter (tube) into the artery and leave it in place during the stress test.

You will start exercising at an easy pace. The care team will increase the exercise intensity as the test goes on. You should try to exercise as long as you can. During the test, the care team will closely monitor your blood pressure, heart rate and ECG changes.

After the test

You may leave as soon as the test is finished. You may go back to your normal activities and diet after the test. The care team will send the test results to your physician.

When to seek medical attention

If you had blood samples taken from your artery, it is important to watch for bleeding in your arm. If you see any bleeding at the puncture site, apply firm pressure right away to stop it.

Call 911 or go to the nearest emergency department if you have any of these symptoms in your arm:

- › Bleeding that does not stop even after you apply pressure
- › Swelling or change in color
- › Pain, numbness or tingling

If you have questions about this test, call the Department of Nuclear Cardiology at 312.926.7486 (TTY: 711).

For more information about Northwestern Medicine, please visit our website at [nm.org](https://www.nm.org).