Cardiopulmonary Exercise Stress Testing

The Cardiopulmonary Exercise Stress test looks at your heart, lungs and muscle response to exercise. It provides important information about what limits your ability to exercise including:

- How you compare to other people of your same age and gender.
- If you are efficient in your exercise.
- If your heart and lungs respond normally to exercise.

With this data, your doctor may be better able to diagnose and treat your symptoms. As needed, it can also assist in setting exercise guidelines.

Before the Test

On the day of the test, plan to arrive 15 minutes before your test time. Take all of your medicines unless told otherwise. If you wear glasses, hearing aids or dentures, please have them for the test. Eat a light meal no later than 2 hours prior to your test. Drink no coffee, tea or caffeinated beverages on the day of your test.

Be sure to bring:
- Your doctor’s written order for the test if one was given to you
- A list of allergies
- A list of all your current medications (prescription, over-the-counter, and herbals)
- Photo ID
- Medical insurance information and card
- Medicare card (Medicare patients only)

Please wear (or bring with you) comfortable clothing and shoes for walking on the treadmill. Patient lockers and showers are available for your use.

Please come to the Galter Pavilion, 201 East Huron Street. Check in at the reception desk on the 8th Floor. Parking is available for patients and visitors in the garage at 222 East Huron Street, across from the Feinberg and Galter pavilions. For discounted rates, please bring your parking ticket with you. Tickets can be validated at the Customer Services Desks on the 1st and 2nd floor of the Feinberg and Galter pavilions and the 1st floor of Prentice (including the Prentice 24-hour desk near the Superior Street entrance).
During the Test
The test is divided into 2 parts. You will first have pulmonary function testing (PFT) done. This is a group of tests that checks lung function, such as:

- 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 the PFT is done, the exercise portion of the test will begin. This portion of the test will take 45 to 60 minutes. An electrocardiogram (ECG) will be used to monitor your heart rate and rhythm. You will be asked to undress from the waist up and wear either a hospital gown or your own T-shirt. This allows for electrodes to be placed on your chest. The electrode placement areas may be shaved if needed. These 10 areas on your chest are rubbed with a soft pumice gel and then cleaned with rubbing alcohol to remove normal skin oils and dirt. 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, monitor wires are attached to each electrode. These wires are connected to a box worn on a belt around your waist.

You also will be asked to breathe into a plastic mouthpiece. It is used to collect the air that you exhale to check lung function during exercise. A small clip is placed on your finger or ear to measure the blood oxygen level.

If blood tests are needed, samples are drawn from the artery near your wrist. A small, flexible catheter (tube) may be inserted into the artery and left in place during the stress test.

Exercise begins slowly, at a low level, and will increase to higher levels of exertion. During the test, your blood pressure, heart rate and ECG will be closely monitored.

After the Test
You are free to leave as soon as the test is finished. There are no diet or activity restrictions. The test results will then be sent to your doctor.

When to Seek Medical Attention
If blood samples were taken from your artery, and any bleeding is noted at the puncture site, apply firm pressure right away. Go to the nearest hospital Emergency Room if you note any of the following in the affected arm:

- Prolonged bleeding after pressure has been applied
- Swelling or change in color
- Pain, numbness or tingling

If you have questions about this test, please call the Stress Lab at 312.926.7486.
Northwestern Medicine – Health Information Resources
For more information, contact Northwestern Memorial Hospital’s Alberto Culver Health Learning Center (HLC) at hlc@nm.org, or by calling 312.926.5465. You may also visit the HLC on the 3rd floor, Galter Pavilion at 251 E. Huron St., Chicago, IL. Health information professionals can help you find the information you need and provide you with personal support at no charge.

For more information about Northwestern Medicine, please visit our website at nm.org.

Para asistencia en español, por favor llamar al Departamento de Representantes para Pacientes al 312.926.3112.

The entities that come together as Northwestern Medicine are committed to representing the communities we serve, fostering a culture of inclusion, delivering culturally competent care, providing access to treatment and programs in a nondiscriminatory manner and eliminating healthcare disparities. For questions, please call either Northwestern Memorial Hospital’s Patient Representatives Department at 312.926.3112, TDD/TTY 312.926.6363, the Northwestern Lake Forest Patient Relations manager at 847.535.8282 and/or the Northwestern Medical Group Patient Representatives Department at 312.695.1100, TDD/TTY 312.926.6363.

Developed by: NMH Department of Cardiopulmonary/Nuclear Cardiology

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