Pharmacologic Stress Echocardiogram

A non-exercise stress echocardiogram (echo) test is used to detect coronary artery disease (CAD), a blockage of blood flow to the heart. This test provides a more complete picture of the workings of your heart during periods of rest and exercise. During the exam, a medicine, dobutamine, is given to increase the rate and force of your heartbeat (similar to what happens during exercise). The echocardiogram uses high-frequency sound waves (ultrasound) to look at how the various parts of the heart work. If CAD is present, the stress echo will often note changes in how the heart muscle contracts.

Although dobutamine is the most common drug for this test, other drugs may be used instead. Thus, you may hear this test called a “pharmacologic stress echocardiogram” when the specific drug is not designated.

Preparing for the Test

- Do not eat or drink for 5 hours before your test. Take your usual medicines with small sips of water unless otherwise instructed by your doctor.
- Be sure to take your blood pressure medicine.
- On the morning of the exam, do not use lotion or powder on your body.
- Wear or bring comfortable clothing for lying on an exam table.
- On the day of your test, arrive 30 minutes before your appointment. Go to the Reception Desk, 8th floor, Galter Pavilion, 201 East Huron Street. 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; 1st floor of Prentice (including the Prentice 24-hour desk near the Superior entrance).
- Allow 1 to 2 hours from arrival until the exam is complete.

Also, 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.
Medicare card (Medicare patients only).

**During the Procedure**

- After a doctor explains the test, including its benefits and risks, you will be asked to sign a consent form.
- To prepare for the test, you will be asked to undress from the waist up. Women will be given a hospital gown to wear. During the test, you will lie down on a special echo exam bed.
- Electrodes will be placed on your chest to record an electrocardiogram (ECG) during the test. An IV (into the vein) line inserted into your arm.
- A small transducer (probe) with a light gel will be placed on your chest to obtain the ultrasound images of your heart.
- During the echo, the dobutamine is injected into the IV. It is slowly increased every 3 minutes until the desired heart rate is reached. The medicine may cause a pounding sensation in your chest; this is normal. You may also have the urge to urinate. Rarely, palpitations, a feeling of warmth or flushing, nausea, headache or abdominal discomfort are noted. All of these signs generally stop once the drug is stopped.
- During the exam, a cardiologist will be present and your blood pressure will be checked every 2 to 3 minutes.

**After the Procedure**

As you rest for the next 20 to 30 minutes, the nurse will check your heart rate and blood pressure. You may resume your regular diet.

If you have any questions or concerns, call echocardiograph scheduling @ 312-926-7483.

**Health Information Resources**

For more information, visit Northwestern Memorial Hospital’s Alberto Culver Health Learning Center. This state-of-the-art health library is located on the 3rd floor of the Galter Pavilion. Health information professionals are available to help you find the information you need and provide you with personalized support at no charge. You may contact the Health Learning Center by calling 312-926-LINK (5465) or by sending an e-mail to hlc@nm.org.

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