

## **Metabolic Stress Echocardiography**

### **What Is It?**

A Metabolic Stress Echo is a combination study that includes both echocardiography and an exercise stress test with an extra-added component of directly measured gas exchange. Another term you will hear interchangeably with Metabolic is Cardiopulmonary Exercise Testing. This test is often used with the cause of dyspnea or if exercise limitation is uncertain. Cardiopulmonary exercise testing has been shown to be of value for preoperative evaluation of at risk patients about to undergo major surgery. It is also currently used in congenital heart disease.

### **What Will Happen During the Test?**

This test is conducted in a manner similar to a Stress Echocardiogram. When you arrive we will go over several questions to obtain a brief history. Before you begin exercise, a cardiac sonographer will record moving images of your heart. You will then be exercising on either a treadmill or a cycle ergometer (bike). The only difference will be a mouthpiece (that you will need to keep in your mouth throughout the test) and a nose clip that you will wear to capture all your air exchange. Due to the mouthpiece, you will not be able to talk freely, so we will discuss hand signals and review some clips that will be helpful in communication throughout the test. You will be encouraged to exercise as long as you can. If you are exercising on a bicycle, we may record some images of your heart during exercise. You will be monitored after exercise to ensure that your heart rate and blood pressure have returned to normal. Supervising the test will be an Exercise Physiologist or physician. In addition, we will be placing several electrodes on your skin to attach an electrocardiogram monitor. This will allow monitoring of your heart rate rhythm throughout the test.

### **How Do You Prepare for the Test?**

You will be asked to do the following prior to your test:

1. Do not eat or drink two hours before the test.
2. Wear comfortable clothes
3. Wear sneakers to walk or ride the bike
4. You may be asked to not take certain medications that can affect the outcome of the test.
5. Bring a list of your medications

The entire test lasts approximately one hour.