

### **How can I help reduce healthcare associated infections?**

Infection control is important to the well-being of our patients and for that reason we have infection control procedures in place. Keeping your hands clean is an effective way of preventing the spread of infections. We ask that you, and anyone visiting you, use the hand sanitiser available at the entrance to every ward before coming in to or after leaving the ward. In some situations hands may need to be washed at the sink using soap and water rather than using the hand sanitiser. Staff will let you know if this is the case.

---

[www.buckshealthcare.nhs.uk](http://www.buckshealthcare.nhs.uk)

Follow us on Twitter @buckshealthcare

Author: Melanie Kirk  
Issue date: September 2016  
Review date: September 2019

Leaflet code: DSE-001  
Version: 2

## Dobutamine stress echocardiography

### **Patient information leaflet**

If you require a translation or an alternative format of this leaflet please call the Cardiology Booking Coordinator on 01494 425902

**Safe & compassionate care,**

**every time**

## Introduction

Dobutamine Stress Echocardiography (DSE) is a test that will allow your cardiologist (heart specialist) to assess the function of your heart and whether it receives an adequate blood supply under stress. It can be used to diagnose or assess coronary artery disease. It is also useful in assessing whether certain parts of the heart are permanently damaged after a heart attack or whether some recovery is possible. It can also give your doctor information about the severity of a valve problem.

The test involves performing an echocardiogram (heart scan) and giving a drug into a vein (dobutamine) that mimics the effects of exercise on the heart. A DSE is often used on patients who cannot perform a treadmill test due to arthritis or other physical limitations. It is also useful when the results of the treadmill test do not give us the answers that we need.

In this leaflet we explain some of the aims, benefits and risks of the procedure. We want you to be fully informed about the procedure and your choices so that you can be involved in making any decisions. Please ask about anything you do not understand or wish to have explained in more detail. You can change your mind about having the procedure at any time.

Potential risks from the procedure are rare, but include complications from the cannula site (bruising or infection), rhythm disturbances of the heart (fewer than 1% of cases) or heart attack (fewer than 1 in 2000 cases).

The test is performed regularly in this hospital and the likelihood of a serious event occurring is very low.

## When will I be told the results?

We will explain the results of the test as soon as the procedure is completed. It may be that you will need to attend an outpatient appointment in order to discuss treatment options. A full copy of the report will be sent to the doctor who asked for the test.

## What happens after the procedure ?

Once the procedure has been completed you will be asked to sit quietly for around 20 minutes to make sure that the effects of the stress medicines have completely worn off.

You will be able to return home after this. We strongly suggest that a friend or family member drives you home.

You may resume your usual diet and activities after the test. The medication may leave you feeling weak for a short period. This will soon pass.

## Are there any potential risks or complications?

A small number of patients may experience minor side-effects. These include headache, nausea and tingling (in fingers, feet or head). These effects usually wear off two to three minutes after the drug has been stopped. If atropine was administered you may experience some blurred vision or a dry mouth.

You may also notice symptoms that you would have otherwise developed during normal exercise such as chest pain, palpitations or breathlessness. These usually go away once the test is completed. If you experience any chest pain (or tightness), breathing difficulties or palpitations during the test, you should notify staff immediately.

## What is an Echocardiogram (heart scan)?

An echocardiogram is a diagnostic test that uses ultrasound to take images of your heart. High frequency sound waves are transmitted into your body and “echoes” are received back onto the monitor showing the internal structure of the heart. Ultrasound does not use x-rays and it can be safely used on adults, children and babies. There is no risk to unborn babies.

## What preparation do I need?

**You must not take medicines that slow the heart for 48 hours before the test. These include beta blockers and some calcium channel blockers, as well as a drug called Ivabradine**

Beta-blocker tablets include Atenolol, Bisoprolol, Metoprolol and Carvedilol, although there are others. Calcium-channel blockers are called Diltiazem and Verapamil. If you do continue with these drugs the stress echo will need to be postponed.

You should continue other medications as usual.

**You must not eat for 2 hours** before the test, but you may drink water.

If you use a Nitrolingual spray (GTN spray) you should take this with you to the appointment.

Bring a list of your medications.

Wear loose and comfortable clothing and dress so you can easily remove all clothing from the waist up. You may like to bring a newspaper or a book.

Your blood pressure will be checked on arrival and monitored throughout the test. If it is too high the doctor may decide to postpone the test until it is at an acceptable level.

### **What happens when I arrive at the hospital?**

On arrival you should report to the Cardiac Day Unit which is located on the upper ground floor of Wycombe Hospital. Go through the double-doors and the nurse's station is on your right. Hand your appointment letter to a member of staff and you will be shown where to wait.

The Cardiac Day Unit regularly deals with emergency admissions, so although we do our very best to keep to appointment times it is not always possible. You should expect to give up your whole afternoon.

### **What does the procedure involve? How long does it last? What does it feel like?**

You will be shown to a cubicle and asked to undress to the waist and put on a gown that should be left open at the front. A nurse will weigh you and check your blood pressure.

A cannula (small plastic tube) will be placed in your arm.

You will then be taken to the procedure room and asked to lie on a scanning couch. Electrodes will be attached to your chest to monitor your heart rate and rhythm. Two or three people will usually be present when you have your test.

Before the dobutamine is administered an echocardiogram will be performed. The doctor may inject a contrast agent into the drip in your arm. This helps to improve the quality of the pictures that are being recorded.

After the echocardiogram, the dobutamine will be given by continuous infusion through the cannula in your arm. This will slowly increase your heart rate in a controlled way. The rate of the dobutamine infusion will be increased every three minutes until you have reached your target heart rate which is determined by your age.

It is sometimes necessary to give an additional drug called atropine to help you reach your target heart rate. Once you have achieved your target heart rate a further scan will be performed. Following this the infusion of dobutamine will be stopped.

Depending on the reason for the test you may also have an additional scan performed soon after the infusion of dobutamine has begun.

The procedure may take up to 45 minutes to complete.