

## Patient information

# **Bubble Contrast Echocardiogram**

Cardio-respiratory Department

Your Consultant / Doctor has advised you to have a bubble contrast echocardiogram

### What is a bubble contrast echocardiogram?

A bubble contrast echocardiogram is an ultrasound scan of your heart with the addition of an injection of a salt water solution (saline) with tiny dissolved air bubbles, known as 'agitated saline' into one of the veins in your arm.

### What are the benefits of having a bubble contrast echocardiogram?

The agitated saline contains tiny bubbles which show up clearly on the scan pictures, and can be a useful way to identify or assess subtle abnormalities within or around the heart. In most cases, the test is performed to help establish if there is a small hole (patent foramen ovale, atrial septal defect, ventricular septal defect) directly connecting the left and right sides of the heart.

In rarer cases, the test can be used to look for connections between arteries and veins in the lungs in patients with shortness of breath or elevated blood pressures in the lungs (pulmonary hypertension).

#### What are the risks of having a bubble contrast echocardiogram?

Bubble contrast echocardiography is a routine cardiac test, which our department is very experienced in performing. The tiny bubbles are made of salt water (saline) and are microscopic and hence extremely safe and not associated with any complications or risks. The bubbles are filtered out and dissolve away after they pass through the heart to the lungs.

You may have slight bruising or tenderness after the cannula is removed.

#### Are there any alternative treatments available?

A bubble contrast echocardiogram is the least invasive, safest and a very accurate way to test for a hole in the heart or connections between the arteries and veins in the lungs compared with alternatives such as MRI or CT scans of the heart.

#### Getting ready for your bubble contrast echocardiogram

On the day of your appointment you may eat and drink as normal. Medications may also be taken as you would usually.

Please leave all valuables at home as the department cannot be held responsible for loss or theft to personal property.

# The day of your bubble contrast echocardiogram

In order to perform an ultrasound scan on your heart you will be asked to undress from the waist upwards. A gown can be provided for your comfort. A cannula will be placed into a vein in your arm to allow for a small injection of agitated saline (the agitated saline is a water solution with very small air bubbles in). The technician will position you on the examination couch on your left side in order to obtain the best view of your heart and the lights will be dimmed in the room.

Your heart rate and rhythm will be monitored by placing three electrodes on your chest during the scan. The technician will obtain images of your heart by moving a probe across different parts of your chest and acquiring images using an ultrasound machine. A second technician or medic will be present to administer the agitated saline.

Several injections of agitated saline may be required and you may be asked to cough, sniff or hold your breath in order to obtain diagnostic results. You will feel no discomfort from the injections of agitated saline.

The test takes approximately 30mins.

## **Going Home**

You may go home as soon as the test is finished. An escort is not required although you may bring one if you prefer.

#### **Further Appointments/results**

The results of the test will be forwarded on to your referring doctor. They will contact your via letter or by seeing you in clinic with the results of the test.

#### **Feedback**

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

#### **Further information**

If you have any further questions about your test please feel free to contact the Cardio-respiratory department where a member of the team will be happy to answer any questions.

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Text phone number: 18001 0151 706 2710

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