

# Bubble Echocardiogram Test

Information and advice for patients

## Cardiology Diagnostics

Welcome to the Cardiology Diagnostics Department where we perform a wide range of cardiac investigations. Our staff aim to provide a high quality service to meet your needs and welcome any suggestions for improvements. We hope you find this leaflet helpful and look forward to seeing you.

### What is an Echocardiogram?

An echocardiogram is an ultrasound scan of the heart that provides a moving picture on a monitor. It is useful for looking at the overall function, structure and size of your heart, and for examining in greater detail the valves and chambers of your heart. It is a very useful tool for investigating various suspected or known heart conditions.

### What is a Bubble Echocardiogram?

A Bubble Echocardiogram uses imaging ultrasound combined with a special injection of saline bubbles, to provide additional information for the doctor.

### What is the benefit of the test?

This test is useful to determine whether you have any holes in the heart. It allows small holes to be detected that are not usually seen with the basic Echocardiogram alone. The bubble study allows the doctor to see the movement of blood between heart chambers more precisely and can also demonstrate the presence of small holes between blood vessels in your lungs.

### What are the risks of the test?

This procedure is very safe. The bubbles that are injected in this test are very small and complications are rare. This procedure does not involve any radiation and ultrasound waves are harmless. As no chemicals or contrast agents are used, there is no risk of allergy associated with the saline bubble injection.

### What are the risks of not having the test?

If you choose not to have the Bubble Echocardiogram, this may delay your doctor finding out what is causing your symptoms and starting any necessary treatment.

### Are there any alternative tests?

Any possibility of alternative tests would have to be discussed with your consultant.

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### Preparing for the test

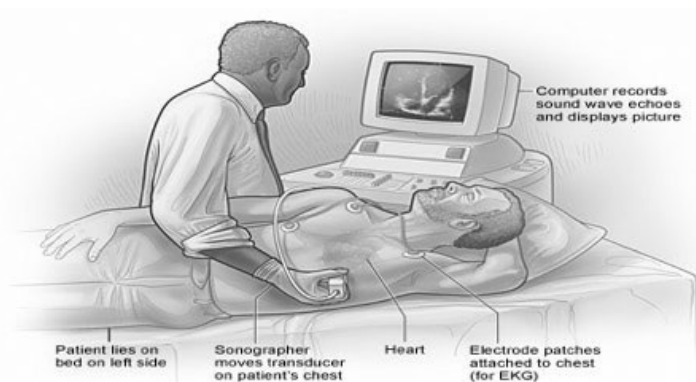
- You can take all of your medication, eat and drink as normal
- If possible do not apply any creams, oils or ointments on the day of the test
- Please allow up to one hour for your appointment

### During the test

You will be taken into a darkened room. Two people will usually be present which could be specially trained echocardiographers (male or female members of staff) and /or a doctor.

You will be asked to undress to the waist and put on a gown to maintain your dignity. A special needle called a cannula will be inserted into one of the veins in your hand or arm. You will then be asked to lie on a couch on your left hand side and three ECG wires will be attached to your upper body, so your heart rhythm can be monitored during the scan.

Saline bubbles (made up of sterile salty water, a small sample of your blood and a small amount of air) will be injected into the cannula. Pictures of your heart will be taken whilst the saline bubbles flow through it, by placing the ultrasound probe with gel onto your chest area. You may be asked to perform special breathing techniques (known as the Valsalva manoeuvre), cough and sniff whilst the pictures are being taken.



Source: National Heart, Lung, and Blood Institute; National Institutes of Health; U.S. Department of Health and Human Services.

### What do I feel during the test?

You will feel a sharp scratch when the cannula is inserted and possibly a cold sensation in your arm as the bubble saline is injected. You may also feel some discomfort when the echocardiographer applies pressure on your chest area with the ultrasound probe.

There is a small chance when performing the breathing techniques (the Valsalva manoeuvre), you may experience your ears popping or a slight headache.

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### After the test

Once the scan is complete, the cannula will be removed from your arm. If you are taking blood thinning medication, you may bleed or bruise more easily following this. You will be given some tissue to remove the gel and you can then get dressed. Sometimes you may be asked to wait, whilst the images are reviewed by a doctor.

### When will I get the results?

The images will be reviewed and reported on by an echocardiographer within 48 hours. The report will then be forwarded to the requesting consultant, who will write to you and your GP. If you have not received a letter within 4 weeks, please contact your consultant's secretary and not the Cardiology Diagnostics department.

### Contact details

You will be able to ask any questions or tell us any concerns before the test is carried out, but if you would like to contact us before your appointment please call us on:

Tel: 0121 507 6295 - Birmingham Treatment Centre

Tel: 0121 507 3512 - Sandwell General Hospital

Monday to Friday, 9:00am – 4:00pm

### Suggestions

In order to continually improve our service we welcome your feedback and suggestions. We would be grateful if you would complete our Friends and Family survey at the end of your appointment.

### Complaints

If you have any complaints about the treatment you have received, please ask at reception to see the Head of Department. Alternatively you can contact, Informal Concern or the complaints department.

#### Informal Concern

Telephone: 0121 507 5836

Lines open: 10am till 4pm Monday to Friday

Email: [swb-tr.pals@nhs.net](mailto:swb-tr.pals@nhs.net)

#### Complaints

Telephone: 0121 507 4080 or 0121 507 5892 or 0121 507 6440

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**Lines open:** 10am till 4pm Monday to Friday

**Email:** [swbh.complaints@nhs.net](mailto:swbh.complaints@nhs.net)

For more information about our hospitals and services please see our website [www.swbh.nhs.uk](http://www.swbh.nhs.uk), follow us on Twitter @SWBHnhs and like us on Facebook [www.facebook.com/SWBHnhs](http://www.facebook.com/SWBHnhs).

### Sources used for the information in this leaflet

British Society of Echocardiography. Available at: [www.bsecho.org](http://www.bsecho.org) (Accessed: 23 February 2023).

National Health Service. Available at: <https://www.nhs.uk> (Accessed: 23 February 2023).



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