

A Patient's Guide to Saline Contrast Echocardiogram ("Bubble Study")

An echocardiogram is an ultrasound scan of the heart. Better pictures are sometimes seen if a material called "contrast" is used during the scan. One type of contrast is saline (sterile salt water). When saline is used it is called a "bubble study". During a bubble study the doctor will shake the salt water with a few drops of your blood until it forms small (micro) bubbles. The bubbles are then injected into the vein through a cannula (a small tube). In a normal heart the bubbles are filtered by the lungs and are seen only on the right side of the heart. If the bubbles are seen on the left side, it shows that there is an opening between the two sides of the heart, which is abnormal. The abnormality can be an atrial-septal defect or a ventricular septal defect. The bubble study helps to identify those abnormalities.

Why would a bubble study be done?

Your consultant has requested this investigation. It might be because your doctor requires more information than could be obtained on an initial echocardiogram. It can be especially helpful if someone has had a stroke or what is called a "TIA", a transient ischemic attack.

What does a bubble study involve?

You will be asked to undress to the waist, a hospital gown will be provided for you to wear. A cannula (a small tube) will be placed in the vein in your arm. Three electrodes will be attached onto your chest to monitor your heart rate during the test. A small amount of cold jelly will be placed on your chest and an ultrasound transducer will be moved over your chest to obtain the images of your heart. Saline (sterile salt water) and a few drops of your blood is shaken in a syringe and then injected into the vein whilst ultrasound images are taken and recorded.

When will I have the results of the bubble study?

The results will be made available to the referring doctor and will be available for discussion at your next clinic appointment.

If you have any concerns, please contact the Cardio Respiratory Department on 01270 612188.

This information is available in audio, Braille, large print and other languages. To request a copy, please contact the Cardio Respiratory Department.

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