

# Having a stress echocardiogram

## Information for patients

This leaflet provides information on what you can expect when you have a stress echocardiogram. If you would like further information, or have any particular worries, please do not hesitate to ask your nurse or doctor.

In all cases, a doctor will explain the stress echocardiogram to you and answer any questions you may have. In most cases it will be possible for a friend or relative to accompany you for all or part of the procedure. Please ask your nurse or doctor.

### What is a stress echocardiogram?

- An echocardiogram (echo) is a scan that uses ultrasound (sound waves) to produce pictures of the heart. This provides information about how well the heart pumps and whether your heart valves are working properly.
- A stress echocardiogram (stress echo) is performed to help your clinician understand how your heart copes when it is made to work harder and is helpful to diagnose whether you have angina or not. It can also give information about the severity of a heart and/or valve problem.



### Before your stress echo

Please let us know if you have ever had an allergic reaction to any medicines or contrast agents/dyes.

You should continue to take most of your medications as normal. If you take any beta blockers or calcium channel blockers listed in the table below, please follow the instructions underneath.

Beta blockers		Calcium channel blockers
<ul style="list-style-type: none"> <li>• Atenolol</li> <li>• Bisoprolol</li> <li>• Carvedilol</li> <li>• Acebutolol</li> <li>• Celiprolol</li> <li>• Labetalol</li> <li>• Metoprolol</li> </ul>	<ul style="list-style-type: none"> <li>• Nadolol</li> <li>• Nebivolol</li> <li>• Oxprenolol</li> <li>• Pindolol</li> <li>• Propanolol</li> <li>• Sotalol</li> <li>• Timolol</li> </ul>	<ul style="list-style-type: none"> <li>• Diltiazem</li> <li>• Verapamil</li> </ul>

If you take any of the above medications, please follow the instructions below:

- Beta blockers or calcium-channel blockers should be stopped 48 hours before the test **only if you have never had heart problems before** and the test is arranged to rule out ischaemic heart disease ie the investigation of chest pain (blocked coronary artery).
- If you have a previous cardiac diagnosis, or take these medication to control your heartbeats or for an abnormal heart rhythm (for example atrial fibrillation), **please do not stop these medications. Speak to your doctor first.**

## During your stress echo

You will be asked to either exercise (on a treadmill or bicycle) or you will be given some medicine (Dobutamine) to make your heart beat harder and faster.

- If the picture quality is poor, a dye (also known as a contrast agent) specifically for ultrasound can be used to help improve the quality of the images which can help improve the accuracy of the test.
- You will be invited into a private consultation room. There will be two people in with you during the test: a doctor/senior sonographer performing the echo and a cardiac physiologist monitoring your heart. The sonographer will usually not be a doctor. This means that some questions you may have about the result will have to wait till you see a doctor in clinic.
- You will be asked to undress to the waist and put on a gown that should be left open to the front. You will be asked to lie on a couch on your left-hand side.
- Stickers will be attached to your chest and connected to the machine. These will be used to monitor your heart rate during the test. Your blood pressure will also be checked regularly throughout the test.
- An ultrasound probe covered by a small amount of gel is placed gently on the centre of your chest and will be moved to different positions.
- The light will be dimmed, and you will hear sounds coming from the machine. These represent blood flow through the heart.
- Depending on which is appropriate, you will be either asked to exercise or be given dobutamine through a cannula put into a vein in your arm. If required, the echo contrast agent will be administered either as bolus (by swallowing) or continuous infusion through the same cannula.
- When the doctor/ sonographer has decided that you have performed enough exercise or that you have received enough dobutamine, they will ask you to lie back down on the couch and more images of the heart will be recorded. You will continue to have your heart rate and blood pressure monitored.
- The echo/stress echo can take up to 45 minutes to complete.

## After your stress echo

- The ECG stickers and echo gel will be removed, and you will be able to get dressed.
- If you have had the echo contrast agent or the dobutamine, you will be asked to sit in the department waiting area for a further 20 minutes. If you feel well after that, you are free to leave the department. If you feel unwell, notify the reception staff and you will be reviewed by a member of the team.
- A full report of the stress echo will be forwarded to the requesting team who will then notify your GP of the result.

## Risks and side-effects

- The stickers used for the ECGs can cause a skin reaction. If you have an allergy to skin adhesive or plasters, please let us know.
- The side effects of the stress medicine (dobutamine) can include sickness, dizziness / light-headedness or chest pain. These effects are generally mild and resolve rapidly once the drug has been stopped. Rarely the dobutamine can cause the heart to develop an abnormal rhythm. If this happens, it will often settle down by simply stopping the stress medicine, but occasionally additional treatment may be needed.
- There is an extremely small risk of allergic reaction (less than 1 in 10,000) from the echo contrast agent.
- If you have angina, there is an extremely small risk (less than 1 in 10,000) you may have a small heart attack during the test.

Staff performing the tests are trained to deal with cardiac emergencies and there are full resuscitation facilities in the treatment room.

## Further information

If you would like further information or to rearrange your appointment, please contact:

Barnet Hospital and Chase Farm Hospital: 020 8216 4552

Royal Free Hospital: 020 7794 0500 ext. 33583 or 35181

## More information

For more information about the cardiology service at the Royal Free London, please visit our website: [www.royalfree.nhs.uk/services/services-a-z/cardiology](http://www.royalfree.nhs.uk/services/services-a-z/cardiology)

## Your feedback

If you have any feedback on this leaflet or for a list of references for it, please email: [rf.communications@nhs.net](mailto:rf.communications@nhs.net)

## Alternative formats

This leaflet is also available in large print. If you need this leaflet in another format – for example Braille, a language other than English or audio – please speak to a member of staff.

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Service: Cardiology

Version number: 1

Approval date: July 2020

Review date: July 2022

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