Contrast Echocardiogram (echo)

Information for patients

This leaflet can be made available in other formats including large print, CD and Braille and in languages other than English, upon request.
This leaflet tells you about a contrast echocardiogram.

**What is an echo?**

This is an ultrasound scan of your heart (an examination using sound waves to make pictures of the inside of your body). This type of scan may be uncomfortable but should not hurt. This will be carried out by an echocardiographer (someone trained to perform ultrasound scans on the heart).

You will be asked to remove your clothing down to the waist and will be given a hospital gown with the opening to the front. You will be asked to lie on a couch on your left side.

Your heart will be monitored throughout the procedure by placing sticky pads on your chest. These are attached to leads linked to the echo ultrasound machine to record your heart rate and rhythm.

The echocardiographer (this can be a male or female) will put gel on your chest and will then roll the ultrasound probe over the area. This will show a picture of your heart on the monitor of the ultrasound machine. This allows the cardiac team to assess (check) the condition of your heart.

Gel is needed for the scan as it lets the ultrasound probe move smoothly over your skin and helps give better pictures. The gel may wet your clothes but will not stain them. This will take about 30 minutes.

If you wish you may bring a friend or relative as an impartial observer (a ‘chaperone’) to be present during your examination. A chaperone does not have to be medically qualified but will ideally be:

- sensitive, and respectful of your dignity and confidentiality
- prepared to reassure you if you show signs of distress or discomfort.
What is a contrast echo?

This is the same as a normal echo, but also needs an injection. This will involve a cannula (a fine tube) being inserted into a vein in your arm or the back of your hand using a small fine needle. A consultant cardiologist (doctor who looks after your heart) will be present throughout the procedure.

There are 2 types of injection, you will be given either a:

- contrast echo using ultrasound contrast medium (dye)
- contrast bubble study using salt water.

**Contrast echo using ultrasound contrast medium**

This is carried out to help see your heart more clearly and assess the strength of the pumping function. This is used when normal echo images do not give enough information to show how strong your heart is pumping and to look for blood clots in your heart.

It is often carried out in people who are taking Herceptin treatment.

The contrast medium is injected into a vein and travels through the right side of the heart, through to the left side and leaves the body through the lungs. It does not stay in the body for more than a few minutes.

**What are the risks and possible complications?**

The risks and possible side effects can include:

- reaction to the dye (contrast medium). 1 person in every 400 can suffer a mild reaction, for example, mild flushing or back pain.\(^1,2,3,4\)
- **anaphylactic reaction.** Less than 1 person in every 1,000 can suffer a serious reaction including death.  

You will be monitored during and after the procedure and staff are ready to deal with any reaction, if needed.

**Please tell your doctor before the test if you have any allergies.**

**Contrast bubble study using salt water**

This is carried out to help see if there is a tiny hole or problem at the back of your heart.

It is usually carried out in people who have suffered a stroke at a young age and the reason why the stroke happened was not found from other routine tests.

The salt water has been shaken between 2 syringes in order to create tiny bubbles and is injected into a vein. The scan will help to show the doctor if any bubbles cross from the right side of your heart to the left side. The tiny bubbles dissolve into your blood or leave the body through your lungs.

It is usually repeated 2 or 3 times and you may be asked to do the valsalva manoeuvre (hold your breath and blow the air into your checks, for example, if you try to pop your ears) during one or more of these scan images.

**What are the risks and possible complications?**

The risks and possible side effects can include:

- **reaction to the dye (contrast medium).** 1 person in every 400 can suffer a mild reaction, for example, mild flushing or back pain.
Will I be in pain?

You may feel some discomfort while the needle is being inserted.

How long will the procedure take?

These scans take about 30 minutes to carry out. You can expect to be in the unit for about 1 hour. You will be able to go home after your scan and return to your normal activities.

Where will I need to go?

You will be given an appointment to attend the Cardiac Investigations Unit. This is normally carried out at the University Hospital of North Tees.

When will I be told the results of my scan?

Before you go home your doctor will discuss what he or she found during the procedure and discuss any further treatment choices, if needed. A letter will be sent to you and your GP giving details of the results.

Contact numbers

If you have any worries or concerns please contact:

University Hospital of North Tees

Cardiac Investigation Unit
telephone: 01642 624500
Monday – Friday, 9.00am – 5.00pm

Outside these hours you should contact your GP’s surgery for the Out of Hours Service number.
Further information is available from:

NHS Choices
telephone: 111 (when it is less urgent than 999)
Calls to this number are free from landlines and mobile phones
or via the website at www.nhs.uk

References


This leaflet has been produced in partnership with patients and carers. All patient
leaflets are regularly reviewed, and any suggestions you have as to how it may be
improved are extremely valuable. Please write to the Quality Assurance Team,
University Hospital of North Tees or email: patientinformation@nth.nhs.uk

Comments, Concerns, Compliments or Complaints

We are continually trying to improve the services we provide.

We want to know what we’re doing well or if there’s anything which we can improve,
that’s why the Patient Experience Team is here to help.

Our Patient Experience Team is here to try to resolve your concerns as quickly as
possible. If you would like to contact or request a copy of our PET leaflet, please
contact:

    telephone: 01642 624719
    Monday – Friday, 9.00am – 4.00pm
    Messages can be left on the answering machine and will be picked up throughout
    the day.

    freephone: 0800 092 0084

    Email: patientexperience@nth.nhs.uk

Out of hours if you wish to speak to a senior member of Trust staff, please contact
the hospital switchboard who will bleep the appropriate person.

    telephone: 01642 617617
    24 hours a day, 7 days a week

The Patient Experience Team is available to discuss your concerns in person
Monday – Friday, 1.30pm – 4.30pm. The office is based on the ground floor at the
University Hospital of North Tees.

Data Protection and use of patient information

The Trust has developed a Data Protection, Caldicott and Disclosure Policy (IG5) in
accordance with the Data Protection Legislation (General Data Protection Regulations
and Data Protection Act 2018) and the Freedom of Information Act 2000. All of our staff
respect this policy and confidentiality is adhered to at all times. If you require further
information please contact the Information Governance Team.

    telephone: 01642 383551 or email: information.governance@nth.nhs.uk