

# Having a contrast-enhanced spectral mammography (CESM) Vacuum Biopsy of your breast

Breast Imaging

Information for Patients

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## Introduction

This leaflet will explain contrast-enhanced spectral mammography (CESM) Vacuum-assisted (Vac) Biopsy. It will explain the benefits, risks and alternatives.

If an unusual area in your breast is found after a mammogram or ultrasound scan, you may need to have more tests to find out what this area is.

We do this by taking a tiny sample from the breast area and looking at it under a microscope. There are several types of breast biopsy procedures. The type of biopsy that you will have will depend on the location and size of the unusual area.

The procedure will take up to 1 hour.

## What is CESM?

CESM is an X-ray of the breast that will highlight areas of concern in more detail.

The difference between CESM and a standard X-ray of the breast, is that a special dye is injected into your arm. The injection helps to see the breast in much more detail.

## Why do I need to have a CESM Vac Biopsy?

This procedure will let us take a large sample of your breast to make a diagnosis. Sometimes we can remove an unusual area with a suction device. This may mean that surgery is not needed.

The results from this biopsy can show if there is a cancer or another condition which may need treatment. A large number of not normal areas turn out to be non-cancerous (benign) with no risk to your health.

**Health information and support is available at [www.nhs.uk](http://www.nhs.uk)  
or call 111 for non-emergency medical advice**

Visit [www.uhleicester.nhs.uk](http://www.uhleicester.nhs.uk) for maps and information about visiting Leicester's Hospitals  
To give feedback about this information sheet, contact [uhl-tr.informationforpatientsmailbox@nhs.net](mailto:uhl-tr.informationforpatientsmailbox@nhs.net)

You may need this procedure because:

- A senior doctor sees an area of concern on your CESM that we would like to investigate further.
- Normal X-ray cannot be used to see the area.

## **How can I prepare for a CESM Vac Biopsy?**

You do not need to do anything. We recommend drinking plenty of water before and after CESM. You can eat as normal before and after.

Please read the below useful information:

- You will have to take your clothes off from the waist up. Wear a top that can be easily removed and you will be given a gown.
- Tell the mammographer upon arrival if you have breast implants.
- Do not wear deodorant, powder, lotion or perfume on your breasts and underarm areas on the day of your appointment.
- We do not have any childcare facilities. If you need to bring your children with you, please bring another adult who can look after them while your procedure is being done.
- Tell the mammographer if you are diabetic and taking metformin.

## **Giving consent**

We will ask you to sign a consent form to give us permission to perform a CESM Vac Biopsy. If at any time you do not understand or need more time to think, please let a member of staff know. You can still change your mind, even after you have signed the consent form.

## **What happens during a CESM VAC Biopsy?**

Before the procedure you will be asked to fill out a short questionnaire to check you are suitable to have the test. The person doing the CESM (called a mammographer) will ask you a few questions about your general health. They will also explain the procedure to you. Please feel free to ask any questions. There may be some imaging staff in the room during the procedure, they are essential for the procedure or training.

- You will be weighed before the procedure so we can calculate how much dye to give you.
- We will insert a small plastic tube (cannula) into the vein in the crease of your elbow (sometimes into the back of your hand). This may hurt briefly while it goes through the skin. A tight band will be used to squeeze your arm whilst doing this. This is to make your vein swell to help the needle go in.
- We will inject the dye. This may make you feel warm, give a metallic taste in your mouth, and the sensation of needing to pee. This is normal and nothing to be worried about.
- In the X-ray room, your breast will be positioned similar to when you are having a mammogram, whilst you are sitting or lying down.
- When the unusual area in the breast is found, we use local anesthetic to make the area numb.

- We then place a biopsy needle device connected to a suction machine through the skin to the area and breast tissue is sucked through the needle. We can collect several samples of tissue at one time without removing the needle.
- The machine used during the biopsy will make a humming noise.
- Your breast will be compressed in the mammogram machine during the procedure. It is important to keep as still as possible.
- The sample from the breast area that is removed will be sent to the laboratory to be examined. It can take 2 weeks for the results.
- The procedure should last no longer than 1 hour. Please allow longer in case of delay.

## **Having a marker inserted in your breast during the procedure**

Sometimes, we may place a small metal clip (or marker) in the breast where the biopsy was taken from. This is so the area can be found again if a further biopsy or surgery is needed.

This marker is made of titanium( a tiny metal tag) and will not cause you any problems. It will not set off airport security alarms and is safe if you have an MRI scan in the future. It can stay in your breast forever without you being aware of it.

## **Care after your CESM VAC Biopsy**

A member of staff will press the breast firmly until any bleeding stops. They will then apply a dressing. Please leave the dressing in place and dry for 24 hours (1 day).

You will be asked to stay in the waiting room in the Breast Care Centre for 30 minutes. We will remove the cannula and we will give you two cups of water before you go home.

- Do not do any tiring activity, exercise or heavy lifting for the rest of the day. You will be able to drive the same day.
- If you have any bleeding from the biopsy site apply firm pressure over the dressing until it stops. If Steri-Strips have been put over the wound leave them to come off by themselves.
- You can eat as normal. Please drink water based drinks more regularly than normal to help remove the dye from your body.

## **When will I get the results of the biopsy?**

The radiologist will look at your images and will send a report to the consultant that referred you.

Before you leave we will give you a follow-up appointment within 14 days. However, if the results are not ready, we may have to contact you to rearrange your appointment at short notice.

## What are the risks of CESM?

- **Radiation:** The amount of radiation you get from CESM is slightly higher than a standard mammogram X-ray. This is still within accepted safety guidelines.
- **Allergic reaction:** With every injection of dye there is a slight risk of a reaction. The dye contains iodine which some people are allergic to. **If you know that you are allergic to iodine, please tell a member of the team.** If you have asthma there is a small risk that you may experience a mild attack, and although rare, some may have a more serious allergic reaction. Please speak to our staff about any concerns that you may have.

### Other uncommon complications:

- **Effects on your kidneys:** Whilst uncommon, around 1 in 100 people may experience an issue with their kidneys. If we have any concerns about the impact of this procedure on your kidneys, we will not offer you CESM.
- **Needle complications (Extravasation):** Despite taking great care to place the needle in the correct place, a rare complication is the potential leakage of the special dye into the tissues around the needle. After the injection of dye we will be looking for early signs of leakage so that, where possible, we can avoid problems.

## Are there any risks with a Vacuum Biopsy?

**With any medical procedure, there is always some risk, and our staff will talk to you about those and give you the chance to ask questions.**

- **Pain:** Around half of patients tell us they experience some form of pain even though we will use a local anaesthetic to numb the area where the needle will be inserted. It is normal to feel pressure and movement during the biopsy, but it should not be painful. After the procedure we recommend paracetamol for any pain as the anaesthetic wears off, usually after a few hours.
- **Bruising:** Patients may have some bruising but any risk from that bruise is low. To minimise the risk, a member of staff will press firmly on the area after the biopsy to try and reduce this.
- **Bleeding:** You can expect some bleeding, however the risk of severe bleeding is low, around 1 in 100 patients. A member of staff will press firmly on the area to stop any bleeding. Sometimes you might need to stay in hospital for observation and very rarely a small operation may be needed to control bleeding
- **Infection:** There is a very low risk of infection, around 1 in 10,000 patients. With any procedure where the skin is broken there is a risk of infection and every effort is taken to keep this risk to a minimum. of infection is minimum.

## Are there any other options?

As with any procedure, we need to think about the risk and benefits.

### You should not have CESM Biopsy if you:

- are pregnant,
- are breastfeeding,
- are allergic to iodine,
- have kidney failure,
- cannot give informed consent,
- would not be able to have a mammogram because of physical problems.

Before we do the CESM we complete a checklist. This is to check that the CESM is right for you. If the CESM is not right for you, we will talk about other options with you.

## Data Protection

CESM Biopsy is a relatively new procedure at University Hospitals of Leicester Breast Imaging Unit. We would like to collect information from your test to see how useful it is, and for education and training purposes. Your information will be kept in a secure database. Any pictures used for training or publication will have your details removed, so that you cannot be identified.

## Contact numbers

It is very unlikely that you will have any harmful effects after your CESM. However please use the numbers below if you feel you need any advice.

## Breast Care Nurses

If you have any questions, please call the Breast Care Nurses on **0116 250 2513**.

They are available from:

- Monday to Thursday, between 9am and 4:30pm
- Friday, between 9am and 4pm.

An answerphone service is available on this number, but messages will only be listened to during working hours.

If you need advice **outside these hours** please contact:

- your **GP**,
- NHS **111** (24 hours): the NHS non-emergency number, or
- Ward 24 (Glenfield Hospital) **0116 250 2490** (24 hours, Monday to Friday)

