

# Contrast Enhanced Mammography

## Information for patients

Edinburgh Breast Unit

### **What is contrast enhanced mammography?**

A Contrast Enhanced Mammogram (CEM) examination provides additional information beyond a standard mammogram, and may demonstrate breast disease more clearly than a standard mammogram.

Contrast enhanced mammography can be performed in conjunction with tomosynthesis (a 3D mammogram) and a normal mammogram in the same time frame. CEM uses contrast dye containing iodine (the same dye as used in CT scans). This dye makes it easier to find new blood vessels that develop when cancers grow.

## **Why might I need a contrast enhanced mammogram?**

Your doctor may recommend that you have a contrast enhanced mammogram for:

- Providing more information to any lumps in your breast(s) that were found during a physical examination.
- Providing more detail of your breasts after a cancer diagnosis especially if you have dense breast tissue.
- Checking how your breast cancer has responded to the treatment you have been given.
- Follow up after treatment for breast cancer.

## **What to expect.**

A contrast enhanced mammogram is very similar to having a standard mammogram. However, prior to the exam, a small needle will be placed into a vein your hand or arm and the dye will be injected into the vein whilst you are seated. After the injection, you will wait two minutes to allow the contrast agent to work inside your breast. The radiographer will then perform the mammogram.

There is no additional compression required other than that which is generally required for a standard mammogram and it takes the same amount of time.

## **What are the benefits of contrast enhanced mammography?**

Contrast enhanced mammography has been shown to find breast cancers that can't be seen on regular mammograms, especially in women with dense breasts. In this regard it is similar to MRI of the breast.

## **What are the risks of contrast enhanced mammography?**

People who undergo contrast enhanced mammography are exposed to slightly more radiation than people who have regular mammograms. This additional radiation is about the same as having one extra mammogram picture taken (e.g. five pictures instead of four).

Rarely, people can have an allergic reaction to intravenous (IV) contrast. Most reactions are mild. A minority of people can have more serious reactions, such as having trouble breathing or facial swelling. You should tell your doctor if you:

- Have had kidney disease or poor kidney function.
- Have ever had an allergic reaction to iodinated contrast in the past.
- If you are a diabetic on metformin.

Contrast enhanced mammography is not advised for women who are pregnant. During breast feeding CEM may be performed if necessary after discussion with your doctor.

## **Will I need to have other imaging or tests after contrast enhanced mammography?**

Just like with regular mammogram you may need to have additional tests to provide more information about what has been seen on your contrast enhanced mammogram. These may include an ultrasound, magnetic resonance imaging (MRI) or a biopsy.

### **Before your contrast enhanced mammogram.**

If you are older than 65 years of age or have diabetes, you will need to have a blood test called an eGFR (a test for kidney function) beforehand. This test checks to see how your kidneys are working.

### **On the day of your examination:**

You can eat a light meal (such as a sandwich or soup) on the day of your appointment. The contrast may cause you to feel some mild nausea. As with any contrast test in Radiology, we recommend you drink plenty of water before and after the test.

Do not use deodorant, lotion, cream, powder, talc, oils, or perfume before your mammogram.

Your radiographer or radiologist will insert a needle into one of your veins to administer the IV contrast. Two minutes after you receive the contrast, your mammogram will be performed. You may feel a warm sensation as the IV contrast is inserted. This is normal.

Let your radiographer know if you have pain at your IV site or if you feel any unusual symptoms such as itchiness, swelling, dizziness, difficulty breathing, or feeling like you are going to faint.

The appointment for a contrast enhanced mammogram takes about 15 minutes longer than a standard mammogram. This extra time is needed for the contrast portion of the test. The whole attendance at this appointment will be around 30 minutes.

### **After your CEM exam.**

After the examination is performed, the needle will be removed and a dressing (plaster) applied. You can remove the dressing after an hour if there is no bleeding. Drink six to eight (8 ounce) glasses of water in the 24 hours after your contrast enhanced mammogram. Drinking water will help remove the contrast from your body.

### **Contact details**

**Mammography Xray, WGH**

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