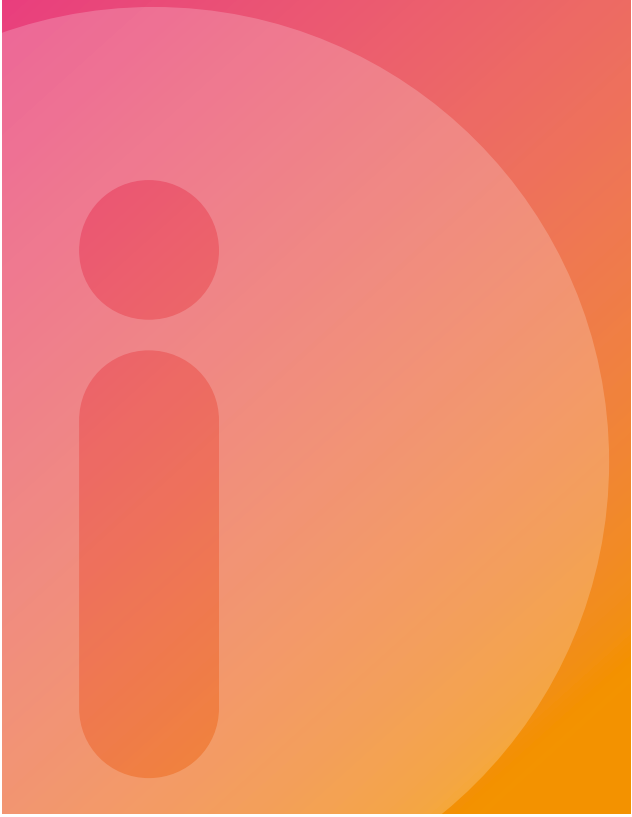
Breast calcifications

This leaflet tells you about breast calcifications. It explains what calcifications are, how they're found and what will happen if they need to be followed up.



Benign breast conditions information provided by Breast Cancer Care

Breast Cancer Care doesn't just support people when they've been diagnosed with breast cancer

We also highlight the importance of early detection and provide up-to-date, expert information on breast conditions and breast health.

If you have a question about breast health or breast cancer you can call us free on **0808 800 6000** or visit **breastcancercare.org.uk**

We hope you found this information useful. If you'd like to help ensure we're there for other people when they need us visit **breastcancercare.org.uk/donate**

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What are breast calcifications?

Breast calcifications are small dots of calcium salts that can occur anywhere in the breast tissue. They are very small so you won't be able to feel them, and they don't cause any pain.

Breast calcifications are very common. They are usually due to benign (not cancer) changes that occur as part of aging.

Sometimes they form because of other benign changes in the breast, such as a fibroadenoma or breast cyst. They can also form if you've had an infection in your breast, if you've injured your breast, or if you've had surgery or a breast implant.

Breast calcifications can develop in the blood vessels of the breast. These may be age-related or caused by other medical conditions, but don't usually require further assessment.

Breast calcifications are more common in women, but can also be found in men.

Occasionally, breast calcifications can be an early sign of cancer. Because of this, you may need further tests to check what sort of calcifications you have.

How are they found?

Breast calcifications are usually found by chance during a routine screening mammogram (breast x-ray) or during an investigation at a breast clinic for another breast problem. The calcifications show up on a mammogram as small white dots.

When you have a mammogram, the image is looked at by radiologists or specialist practitioners (doctors and other trained staff who specialise in the use of imaging to diagnose and treat disease). When calcifications are found, they will look carefully at:

- Their size – such as large or small
- Their shape – such as round, 'popcorn like' or 'large rod like'
- Their pattern – such as scattered, in a line or in a group

They will categorise the calcifications as looking benign, indeterminate (uncertain) or suspicious of being cancer.

Types of calcifications

Microcalcifications are small. They often occur because of benign (not cancer) changes, but occasionally microcalcifications can be an early sign of cancer.

Macrocalcifications are larger. They usually occur because of benign (not cancer) changes and do not need to be investigated.

How are they treated?

If the calcifications look benign, nothing more needs to be done. They do not need to be removed and won't cause you any harm.

If the calcifications look indeterminate (uncertain) or suspicious you will need further tests, as in many cases a mammogram won't give enough information. This doesn't mean something is wrong, but further tests will help to make an accurate diagnosis.

These tests are usually done in the breast clinic or x-ray department as an outpatient. You won't have to stay overnight in hospital.

Further tests could include the following.

Mammogram

You may need to have another mammogram that gives a close-up (magnified) picture of the affected area.

Ultrasound scan

An ultrasound scan uses sound waves to produce an image of the breast tissue. It's painless, and generally done in a few minutes but can take longer.

Core biopsy

A core biopsy uses a hollow needle to take a sample of breast tissue, and is done using a mammogram or ultrasound for guidance. The sample will be sent to a laboratory to be looked at

under a microscope. Several tissue samples may be taken at the same time. This procedure will be done using a local anaesthetic.

Because calcifications are so small, a mammogram is often used to locate them accurately. A biopsy can then be taken from the affected area (known as a stereotactic core biopsy).

Vacuum assisted biopsy

This procedure takes a little longer than a core biopsy and is done using a mammogram or ultrasound for guidance. After an injection of local anaesthetic, a small cut is made in the skin. A hollow probe connected to a vacuum device is placed through this cut. Breast tissue is then sucked through the probe by the vacuum into a collecting chamber. This means that several samples of breast tissue can be collected without removing the probe. The samples are sent to a laboratory to be examined under a microscope.

Vacuum assisted excision biopsy

Occasionally, you may have a vacuum assisted excision biopsy to remove an area of calcification. This is a similar procedure to a vacuum assisted biopsy, but more tissue may be removed.

This may mean that an operation under a general anaesthetic can be avoided.

Inserting a metal marker

Sometimes a small metal clip (or marker) is placed in the breast where the biopsy has been taken. This is so the area can easily be found again if a further biopsy or surgery is necessary. If another procedure isn't needed, the clip can be safely left in the breast.

The marker clip is usually made of titanium (the same metal used for joint replacement surgery). It will not set off alarms at airports. Most clips are now suitable for having an MRI, but if the marker clip is left in and you need to have an MRI scan in the future, let your doctor or radiographer know.

Localisation

You may be recommended an operation to remove the area of calcification if it's not possible

to get a biopsy of the area, or if the biopsy did not confirm a diagnosis. You may also need an operation if the biopsy results show an unusual change (called atypia), or the biopsy results show a sign of early cancer.

Because the calcification cannot usually be felt, the exact position has to be 'marked' for the surgeon, so that they can remove the right area. In this case a technique called wire localisation is used. In the x-ray department, a mammogram or ultrasound scan will be used as a guide to insert a fine wire into the breast under local anaesthetic. The wire is then carefully secured under a small dressing and left in place until the operation to remove the area of calcification. The operation is usually done under a general anaesthetic on the same day, and the wire will be removed during the operation.

Some hospitals are using a new localisation procedure. Instead of a fine wire a tiny, very low dose radioactive seed (about the size of a grain of rice) or a small radiation-free magnetic marker (known as a Magseed) is inserted into the breast tissue. This can be done up to two weeks before your operation. During surgery, a special probe is used to locate the seed and guide the surgeon to the tissue that needs to be removed. The seed will be removed during the operation.

Sometimes the operation is done on a different day and in this case you'll go home after the wire or seed has been inserted, and come back to the hospital the day of your operation. If the wire or seed feels uncomfortable while it is in place you can have mild pain relief, such as paracetamol.

After your operation, you may feel soreness and discomfort but this can be managed with pain relief. There will be a scar, but this should fade in time.

Follow-up

It's likely that your tests will show the calcifications are due to benign changes, and in this case you won't need any more treatment.

If the calcifications are part of another benign breast condition or an unusual change (called atypia), you will be told if anything else needs to be done. We have information on other types of benign breast conditions.

If you're told that the calcifications are an early sign of breast cancer, your treatment team will talk to you about what this means and discuss your future treatment. You may want to read our booklets **Breast cancer and you: coping with diagnosis, treatment and the future** and **Treating primary breast cancer**.

Do breast calcifications increase my risk of breast cancer?

Most breast calcifications are due to benign (not cancer) changes, which does not increase your risk of breast cancer.

However, if the breast calcifications are due to atypical change, this may slightly increase your risk of breast cancer.

Your treatment team will be able to discuss this further with you.

It's important to continue to be breast aware, and to go back to your GP if you notice any changes in your breasts, however soon this is after you were told you had calcifications.

You can find out more about being breast aware in our booklet **Know your breasts: a guide to breast awareness and screening**.

Further support

Having breast calcifications may make you feel anxious and in need of further support.

To speak with one of our nurses, call our free Helpline on **0808 800 6000**.

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About this leaflet

Breast calcifications was written by Breast Cancer Care's clinical specialists, and reviewed by healthcare professionals and people affected by breast problems.

For a full list of the sources we used to research it:

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