

#### **Breast Calcifications**

Breast calcifications are small areas of calcium in the breast. They cannot be felt and can only be detected on a mammogram. Calcifications are very common, and in most cases are harmless.

There are two types: macro-calcifications and micro-calcifications.

#### **Macro-calcifications:**

##### **What are macro-calcifications?**

They are coarse calcium deposits in the breast. They look like large white dots or dashes on a mammogram. They are found in about half of the women over the age of 50, and in about 1 in 10 younger women. They may be caused by calcium deposits in a cyst, or in milk ducts, as women get older. They may also be the result of previous injuries or inflammation. Calcium in the diet does not cause calcifications.

Macro-calcifications are harmless. They are not linked with cancer and do not need any treatment or monitoring.

#### **Micro-calcifications:**

##### **What are micro-calcifications?**

They are tiny deposits of calcium in the breast tissue that show up as fine white specks on a mammogram.

#### **How common are they?**

Micro-calcifications are very common.

#### **How are they found?**

Micro-calcifications can be seen on a mammogram. Unless you have a mammogram you would be unaware that you have them.

#### **Do they turn into cancer or increase the risk of cancer?**

Usually, micro-calcifications are not due to cancer. However, in a small number of cases, a group of micro-calcifications seen in one area (a cluster) may be a sign of pre-cancerous changes in the breast or of an early breast cancer.

#### **What is done about them?**

If your mammogram shows that there are calcifications, a doctor who is specialised in reading X-rays and scans (a Radiologist) will look at the size, shape and pattern of calcifications to decide if any further tests or investigations are needed.

If micro-calcifications are found, you may be asked to come back for a close up mammogram (magnification views) of the affected area and sometimes an ultrasound.

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Depending on the results of this the radiologist may recommend:

- No further action as the changes are clearly not cancer
- A biopsy – taking a small sample of tissue with a needle so that it can be looked at under a microscope. This is done using an ultrasound or mammogram linked to a computer, which produces detailed images (pictures) of the breast tissue, and helps the doctor to guide the needle to the area of the calcification

#### **What a needle biopsy might show:**

##### **Benign (non-cancerous) changes**

There are many benign causes of micro-calcification.

Some of the most common are:

##### **Fibrocystic Change**

The most common cause of breast lumps in women aged 30-50, fibrocystic changes occur because some of the breast tissue overreacts to normal monthly changes in hormonal levels.

This can lead to scarring around the ducts, which can block the duct and cause micro (tiny) cysts to accumulate.

##### **Fibroadenoma**

A fibroadenoma is a non-cancerous lump that grows in a young woman's breast. With menopause and aging these can shrink and calcify.

##### **Fat necrosis**

Previous injury, surgery or infection in the breast can cause scarring, which may calcify.

##### **Involution**

Aging alone can cause calcifications.

None of these changes by themselves give you a significantly increased risk of breast cancer or turn into breast cancer. The calcifications therefore do not need to be removed, nor do you need to be screened more often than other women your age.

##### **What happens if you have benign changes only?**

Your calcifications do not increase your risk of developing a cancer compared with other women your age. You should continue to have your mammograms regularly. If you notice a lump or anything else unusual in either breast, see a doctor.