This leaflet tells you about fat necrosis. It explains what fat necrosis is, how it’s diagnosed and what will happen if it needs to be followed up or treated.

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 find 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 is fat necrosis?

Fat necrosis is a benign (not cancer) condition and does not increase your risk of developing breast cancer. It can occur anywhere in the breast and can affect women of any age. Men can also get fat necrosis, but this is very rare.

Breasts are made up of lobules (milk-producing glands) and ducts (tubes that carry milk to the nipple). These are surrounded by glandular, fibrous and fatty tissue. Sometimes a lump can form if an area of the fatty breast tissue is damaged. This is called fat necrosis (necrosis is a medical term used to describe damaged or dead tissue).

Damage to the fatty tissue can occur following a breast biopsy, radiotherapy to the breast or any breast surgery, including:

- breast reconstruction
- breast reduction
- lipomodelling (when fat taken from another part of the body is injected into the breast, for example to improve the appearance of dents following surgery)

The fatty breast tissue can also be damaged by a bruise or injury to the breast. Sometimes it develops without any trauma and many women with fat necrosis don’t remember a specific injury.
What are the symptoms?

Fat necrosis feels like a firm, round lump (or lumps) and is usually painless, but in some people it may feel tender or even painful. The skin around the lump may look red, bruised or occasionally dimpled. Sometimes fat necrosis can cause the nipple to be pulled in.

Sometimes, within an area of fat necrosis the damaged tissue can form a cyst containing an oily fluid (oil cyst). Breast cysts don’t usually need any treatment or follow-up. Most cysts go away by themselves and are nothing to worry about. If the cyst is large or causing discomfort, your specialist may draw off the fluid using a fine needle and syringe.

How is fat necrosis diagnosed?

Fat necrosis usually becomes noticeable as a lump in the breast. After a breast examination your GP (local doctor) is likely to refer you to a breast clinic where you’ll be seen by specialist doctors or nurses.

Sometimes fat necrosis is found by chance following a mammogram (breast x-ray) during a routine breast screening appointment.

At the breast clinic most people have a breast examination followed by one or more of the following tests:

- mammogram (breast x-ray) or ultrasound scan (uses high frequency sound waves to produce an image)
- fine needle aspiration (FNA), core biopsy or vacuum assisted excision biopsy
During the breast examination fat necrosis can be confused with breast cancer. It may also look like breast cancer on x-rays and scans which can cause a lot of anxiety. If the mammogram or ultrasound scan clearly shows fat necrosis, an FNA or core biopsy may not be needed. If there is any doubt about what the mammogram or ultrasound scan shows, then a biopsy will be done.

An FNA uses a fine needle and syringe to take a sample of cells for analysis.

A core biopsy uses a hollow needle to take a sample of breast tissue. Several tissue samples may be taken at the same time. Because tissue is taken rather than cells, this gives more detailed information. A local anaesthetic is usually given before a core biopsy.

These samples are then sent to the laboratory to be looked at under a microscope.

Mammograms are less commonly used in women under 40, although they may sometimes be used to help with the diagnosis. Younger women’s breast tissue can be dense which can make the x-ray image less clear so any normal changes or benign breast conditions can be harder to identify.

Call our free Helpline if you’d like more information about any tests you may be having, or see our booklet Your breast clinic appointment.

**How is fat necrosis treated?**

Fat necrosis is harmless so you won’t usually need any further treatment or follow-up. In most cases the body will break it down over time (this could take a few months).
Surgery is usually avoided if possible because it can sometimes cause further fat necrosis. However, an operation to remove the fat necrosis may be recommended if:

- the biopsy hasn’t given enough information to confirm a diagnosis of fat necrosis
- the fat necrosis is uncomfortable or tender
- the lump or lumpy area doesn’t go away by itself, or gets bigger

If you do need surgery, you’ll usually have an excision biopsy. This is an operation to remove the dead or damaged tissue, and may be done using either a local or a general anaesthetic. The operation will leave a small scar but this usually fades over time.

Some people are offered a vacuum assisted excision biopsy to remove the fat necrosis. 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. Using ultrasound or mammography as a guide, breast tissue is sucked through the probe by the vacuum into a collecting chamber. The biopsy device is used until the fat necrosis has been removed. This may mean that an operation under a general anaesthetic can be avoided.

Following an excision biopsy or vacuum assisted excision biopsy, the tissue removed is sent to the laboratory and examined under a microscope.

If you have fat necrosis that causes you discomfort but you’re not having an operation to remove it, your doctor may suggest treating it with pain relief such as paracetamol or an anti-inflammatory drug like ibuprofen.
Can fat necrosis increase the risk of breast cancer?

Having fat necrosis does not increase your risk of developing breast cancer. Some people think the fat necrosis might ‘turn into’ breast cancer, but there’s no evidence to support this.

However, it’s still important to be breast aware and go back to your GP if you notice any changes in your breasts, regardless of how soon these occur after your diagnosis of fat necrosis.

You can find out more about being breast aware in our booklet Know your breasts: a guide to breast awareness and screening which can be downloaded or ordered from our website breastcancercare.org.uk

If you have any questions about fat necrosis or would just like to talk it through with an expert, you can call our free Helpline on 0808 800 6000.
About this leaflet

**Fat necrosis** 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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- Email publications@breastcancercare.org.uk

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