Fat necrosis was written by Breast Cancer Care's clinical specialists, and reviewed by healthcare professionals and members of the public.

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Breast Cancer Care doesn't just support people affected by breast cancer. We also highlight the importance of early detection and answer your questions about breast health. Our publications and website provide up-to-date, expert information on breast conditions and looking after your breasts.

If you have a breast cancer or breast health query contact our Helpline on 0808 800 6000 or visit www.breastcancercare.org.uk

Fat necrosis

This leaflet tells you about fat necrosis. It explains what fat necrosis is, how it’s found and what will happen if it needs to be treated or followed up. We hope this information helps you understand more about what it is and what it means for you.

Although it’s much more common in women, fat necrosis can also affect men.
Fat necrosis can occur anywhere in the breast and can affect women of any age. It’s a benign (not cancer) condition and does not increase your risk of developing breast cancer.

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

The damage to the fatty tissue can occur following a needle biopsy, breast surgery (including breast reconstruction), or radiotherapy to the breast. The breast tissue may also be damaged by a bruise or injury to the breast, although many women don’t remember any specific injury.

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 (retracted).

Sometimes within an area of fat necrosis, cysts containing an oily fluid can occur. These are called oil cysts. If you develop an oil cyst the information in our Breast cysts leaflet may be relevant to you.

**What is fat necrosis?**

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 you’ll probably have three different tests, known as triple assessment, so that a definite diagnosis can be made. These include a:

- breast examination
- 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.

If the ultrasound or mammogram clearly shows fat necrosis, an FNA or core biopsy may not be needed.

An FNA uses a fine needle and syringe to take a sample of cells for analysis. A core biopsy uses a larger needle to obtain a sample of tissue from the area of concern. Several tissue samples may be taken at the same time. Because tissue is taken rather than cells, it 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.

FNA and core biopsy can cause fat necrosis.

**How is it found?**

Fat necrosis often goes away by itself. If the lump or lumpy area doesn’t disappear, or gets bigger, you may need to have a small operation to remove it. You may also need an operation if the biopsy hasn’t given enough information to confirm fat necrosis.

This is called an excision biopsy and may be done using either a local or a general anaesthetic. The operation will leave a small scar but this will fade over time.

You may be 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. The tissue removed is sent to the laboratory and examined under a microscope.

Although mammograms are less commonly used in women under 40, they may sometimes be needed to complete the assessment. 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.

**Treatment and follow-up**

If you’ve been told you have fat necrosis you won’t usually need any further treatment or follow-up. If the fat necrosis contains fluid (an oil cyst), this may be drawn off with a needle and syringe (aspirated) to relieve any discomfort.

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**What this means for you**

Having fat necrosis does not increase your risk of developing breast cancer. 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 you were told you had fat necrosis.

You can find out more about being breast aware in our booklet: Your breasts, your health: throughout your life.

If you’d like any further information or support, call our free Helpline on 0808 800 6000 (Text Relay 18001).

**Call our Helpline on 0808 800 6000 Visit www.breastcancercare.org.uk**