

## Biopsy basics

If you develop a breast lump or other breast change, you may need to have a biopsy. A biopsy is a procedure that removes a sample of cells or tissue from the breast to be tested. The cells or tissue that have been removed are examined under a microscope to look for signs of cancer. A biopsy is generally not painful because the breast is numb but you may feel some discomfort.

There are two main types of biopsies: *needle biopsy* and *open surgical biopsy*. The method you

and your doctor choose depends mainly on the nature and location of the abnormality and your general health and preference.

Most women who have a biopsy are not diagnosed with cancer. Among those women whose abnormality was found through a mammogram, less than half will have cancer. Even so, you may want to bring a friend or family member to your biopsy for support and to drive you home.

## Needle biopsy

Because it is fast and simple, this method is often done first. If your doctor cannot feel the lump, special equipment is used to guide the needle to the area.

**Core needle biopsy** — A thin, hollow needle is used to remove a small amount of tissue. It can be used on both suspicious areas that can be felt and those that can only be seen on a mammogram, digital mammogram or MRI. The skin is nicked with a scalpel so the needle can enter. This type of needle biopsy is done in an outpatient setting.

**Fine needle aspiration** (also known as fine needle biopsy) — A thinner needle than in core needle biopsy that is used to remove a few cells from the breast lump. It can be done in an outpatient setting and only takes a few minutes.

**Vacuum assisted biopsy** — A thicker, hollow needle removes cores of tissue by means of a single insertion of a vacuum assisted probe. Vacuum assisted breast biopsy is done under a local anesthetic in an outpatient setting. This type of needle biopsy may be done with the guidance of stereotactic mammography or ultrasound imaging.

## Open surgical biopsy

An open surgical biopsy is a surgical procedure that removes the abnormality from the breast. It is done in a hospital or outpatient setting with anesthetic. Most women are able to go home the same day.

**Excisional** — The entire lump plus some surrounding normal tissue are removed. This is the most common type of open biopsy and the most accurate way to diagnose breast cancer. Although the primary purpose is to diagnose cancer, an excisional biopsy can also be a surgical treatment to remove cancer.

**Incisional** — Only a portion of the lump is removed. It is most often done on women with advanced stage cancer whose tumors are too large to be removed by excisional biopsy.

Types of biopsy	Advantages	Disadvantages
<b>needle biopsy</b> <ul style="list-style-type: none"> <li>• fine needle</li> <li>• core needle</li> <li>• vacuum assisted breast biopsy</li> </ul>	<ul style="list-style-type: none"> <li>• simple procedure — can be done in an outpatient setting with mammographic or ultrasound guidance</li> <li>• accurate</li> <li>• quicker than open surgical biopsy</li> <li>• generally not painful because the breast is numb</li> <li>• less expensive than open surgical biopsy</li> <li>• results available within 48-72 hours</li> </ul>	<ul style="list-style-type: none"> <li>• open biopsy may be necessary</li> <li>• does not remove all of the lump</li> <li>• if needle misses the tumor, an open biopsy will be needed</li> <li>• <i>fine needle only</i>: requires cytopathologist to review the results</li> <li>• <i>fine needle only</i>: cannot fully distinguish in situ cancer from invasive cancer</li> </ul>
<b>open biopsy</b> <ul style="list-style-type: none"> <li>• incisional</li> <li>• excisional</li> </ul>	<ul style="list-style-type: none"> <li>• takes only about an hour</li> <li>• more accurate than needle biopsy</li> <li>• provides more information for treatment plan</li> <li>• <i>excisional only</i>: removes entire lump</li> <li>• might be the only surgery needed</li> </ul>	<ul style="list-style-type: none"> <li>• a surgical procedure</li> <li>• more expensive than needle biopsy</li> <li>• possible side effects such as infection or blood collection under the skin, scarring and changes in the breast contour</li> <li>• <i>excisional only</i>: removing tissue can change the look and feel of the breast</li> </ul>

## Questions to ask your doctor

What type of biopsy do you recommend?  
Why do you prefer this method?

How much of the lump will be removed?

Where will my tissue be stored?  
How can I access it in the future?

How long will the biopsy take?  
Can I go home the same day?

Will I be awake? (*If you are having an open biopsy and think you might want a sedative, be sure to bring it up with your doctor.*)

How visible will my scar be? Where will it be?

What possible side effects should I know about?

How soon will I know the results of the biopsy?

How can I get a copy of the pathology report?

## Resources

### Organization

Susan G. Komen for the Cure  
1-877 GO KOMEN  
[www.komen.org](http://www.komen.org)

### Books

*Dr. Susan Love's Breast Book*, 4th ed., by Susan M. Love with Karen Lindsey. 2005 (Addison-Wesley).  
See Chapter 8.

*Mayo Clinic Guide to Women's Cancers* by Lynn C. Hartmann and Charles L. Loprinzi, 2005 (Mayo Clinic Health Information).

### Internet

NOAH: NY Online Access to Health.  
[www.noah-health.org/en/cancer/types/breast/](http://www.noah-health.org/en/cancer/types/breast/)

### Related fact sheets in this series:

- Breast Cancer Detection
- Mammography
- Breast Surgery