

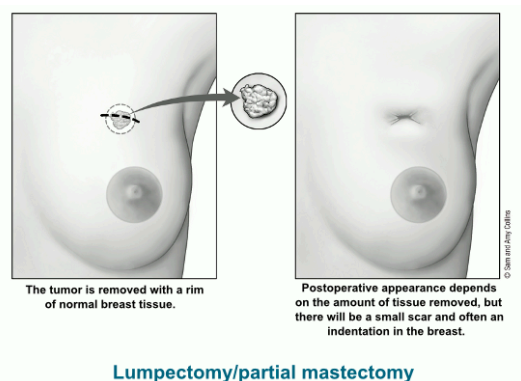
Breast-conserving Surgery (Lumpectomy)

Breast-conserving surgery (BCS) removes the cancer while leaving as much normal breast as possible. Usually, some surrounding healthy tissue and lymph nodes also are removed. Breast-conserving surgery is sometimes called **lumpectomy**, **quadrantectomy**, **partial mastectomy**, or **segmental mastectomy** depending on how much tissue is removed.

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What you should know before having breast-conserving surgery

- How much of the breast is removed depends on the size and location of the tumor, your breast size, and other factors.
- Breast-conserving surgery allows a woman to keep most of her breast, but makes it likely she will also need [radiation](#).
- After BCS, most women will have radiation therapy. Some women might also get other treatments, such as [hormone therapy](#) or [chemotherapy](#).
- Choosing BCS plus radiation over mastectomy does not affect a woman's chances of long-term survival.
- If you think you want [breast reconstruction](#), talk to your doctor **before** your breast cancer surgery.
- Not all women with breast cancer can have BCS. Talk to your doctor to find out whether BCS is an option for you.
- Side effects of BCS may include pain, a scar and/or dimple where the tumor was removed, a firm or hard surgical scar, and sometimes [lymphedema](#), a type of swelling, in the arm.



Who can have breast-conserving surgery?

Breast-conserving surgery (BCS) is a good option for many women with early-stage cancers. The main advantage is that a woman keeps most of her breast. However, most women will also need radiation therapy, given by a **radiation oncologist** (a doctor who specializes in radiation). Women who have their entire breast removed ([mastectomy](#)) for early-stage cancers are less likely to need radiation, but they may be referred to a radiation oncologist for evaluation because each patient's cancer is unique.

BCS might be a good option if you:

- Are concerned about losing a breast
- Are willing to have radiation therapy and are able to get to the appointments (if you need help getting to and from your appointments see [Road To Recovery](#)).
- Have not already had that breast treated with radiation therapy or BCS
- Have only one area of cancer in the breast, or multiple areas in one quadrant (multifocal) that are close enough to be removed together without changing the look of the breast too much
- Have a tumor smaller than 5 cm (2 inches), that is also small relative to the size of the breast
- Are not pregnant or, if pregnant, will not need radiation therapy immediately (to avoid risking harm to the fetus)
- Do not have a gene mutation (change) such as a *BRCA* or *ATM* mutation, which might increase your chance of a second breast cancer
- Do not have certain certain connective tissue diseases such as scleroderma or Sjögren's

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After your surgery, it's important to know what to expect. Most women are able to function after going home and can often return to their regular activities within 2 weeks. Some women may need help at home depending on how extensive their surgery was.

Ask a member of your health care team to show you how to care for your surgery site and affected arm. Usually, you and your caregiver(s) will get written instructions about care after surgery. These instructions might include:

- How to care for the surgery site and dressing
- How to care for your drain, if you have one (This is a plastic or rubber tube coming out of the surgery site that removes the fluid that collects during healing.)
- How to tell if an infection is starting
- Tips on bathing and showering after surgery
- When to call the doctor or nurse
- When to start using your arm again and how to do [arm exercises](#) to prevent stiffness
- When you can start wearing a bra again
- The use of medicines, including pain medicines and possibly antibiotics
- Any restrictions on activity
- What to expect regarding sensations or numbness in the breast and arm
- What to expect regarding feelings about body image
- When to see your doctor for a follow-up appointment
- Referral to an ACS CARES volunteer. Through [ACS CARES](#) a specially trained volunteer who has had breast cancer can provide information, comfort, and support.

Possible side effects of breast-conserving surgery

As with all operations, bleeding and infection at the surgery site are possible. Other side effects of breast-conserving surgery can include:

- Pain or tenderness or a "tugging" sensation in the breast
- Temporary swelling of the breast
- Hard scar tissue and/or a dimple that forms at the surgical site
- Swelling of the breast from a collection of fluid (seroma) that might need to be drained
- Change in the shape of the breast
- Neuropathic (nerve) pain (sometimes described as burning or shooting pain) in the chest wall, armpit, and/or arm that doesn't go away over time. This can also happen in mastectomy patients and is called [post-mastectomy pain syndrome](#) or PMPS.
- If [axillary lymph nodes are also removed](#), other side effects such as [lymphedema](#) may occur.

Was all the cancer removed?

During BCS, the surgeon will try to remove all the cancer, plus some surrounding normal tissue. This can sometimes be difficult depending on where the cancer is located in your breast.

After surgery, a doctor, called a pathologist, will look closely at the tissue that was removed in the lab. If the pathologist finds no invasive cancer cells at any of the edges of the removed tissue, it is said to have **negative** or clear margins. For women with DCIS, at least 2mm (0.08 inches) of normal tissue between the cancer and the edge of the removed tissue is preferred. If DCIS cancer cells are found near the edges of the tissue (within the 2mm), it is said to have a **close** margin. If cancer (invasive or DCIS) cells are found at the edge of the tissue, it is said to have a **positive** margin.

Having a **positive** margin means that some cancer cells may still be in the breast after surgery, so the surgeon often needs to go back and remove more tissue. This operation is called a **re-excision**. If cancer cells are still found at the edges of the removed tissue after the second surgery, a mastectomy might be needed.

Breast reconstruction surgery after breast-conserving surgery

Before your surgery, talk to your breast surgeon about how breast-conserving surgery might change the look of your breast. The larger the portion of breast removed, the more likely it is that you will see a change in the shape of the breast afterward. If your breasts look very different after surgery, it may be possible to have some type of [reconstructive surgery](#) or to have the size of the unaffected breast reduced to make the breasts more symmetrical (even). It may even be possible to have this done during the initial surgery. It's very important to talk with your doctor (and possibly a plastic surgeon) **before** the cancer surgery to get an idea of how your breasts are likely to look afterward, and to learn about your options.

Treatment after breast-conserving surgery

Most women will need radiation therapy to the breast after breast-conserving surgery. Sometimes, to make it easier to aim the radiation, small metallic-like clips (which will show up on x-rays) may be placed inside the breast during surgery to mark the area where the cancer was removed.

Many women will have hormone therapy after surgery to help lower the risk of the cancer coming back. Some women might also need chemotherapy after surgery. If so, radiation therapy and hormone therapy are usually delayed until the chemotherapy is completed.

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Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as editors and translators with extensive experience in medical writing.

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