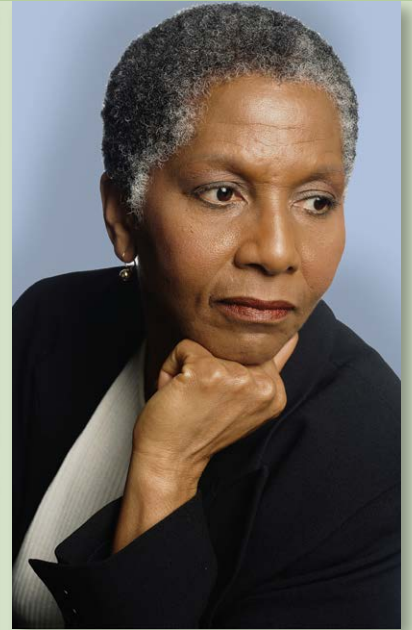
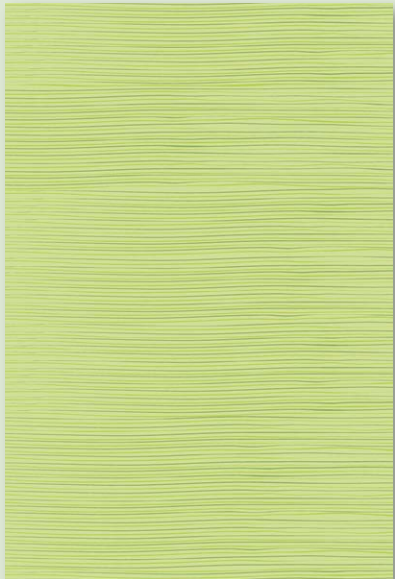
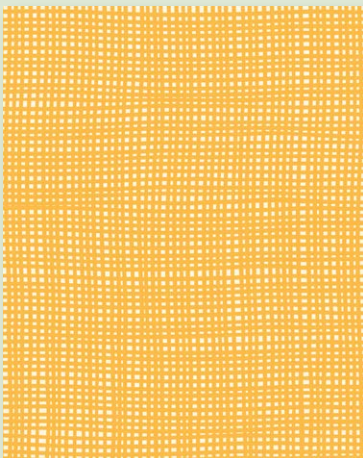
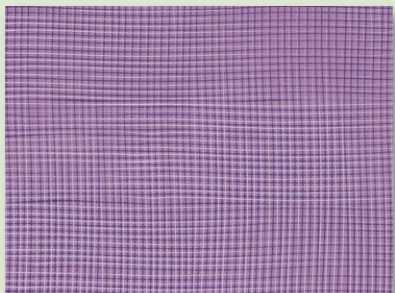
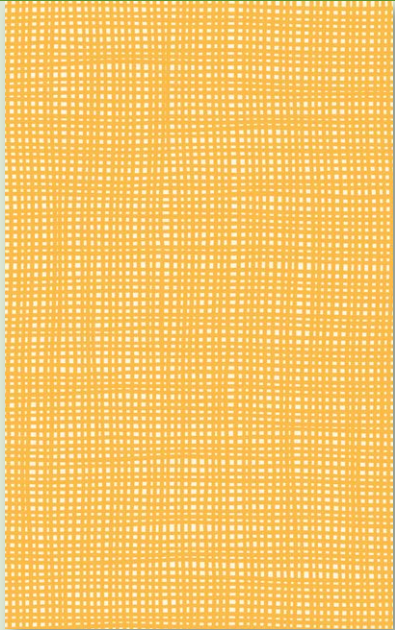
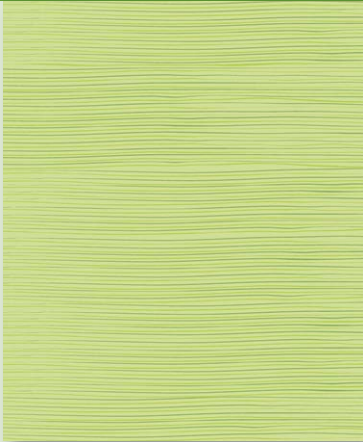
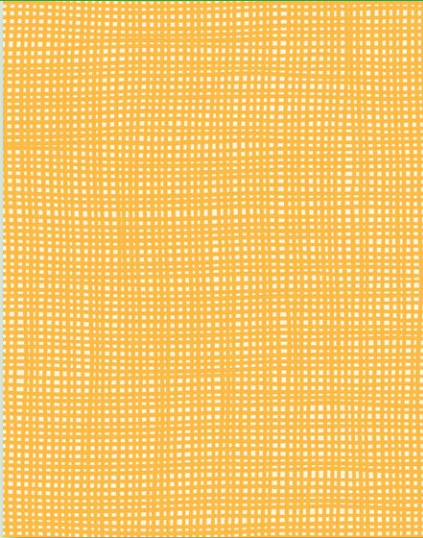


Surgery Choices

For Women with DCIS or Breast Cancer



The National Cancer Institute is grateful for our partnership with the National Research Center for Women & Families and its Cancer Prevention and Treatment Fund. Together, we have adapted their booklet, *Making an Informed Choice: Is Lumpectomy a Safe Option for Me?*, for national use. Our thanks, also, to the expert development team, writers, reviewers, and those who took part in our pilot tests and focus groups.



Surgery Choices for Women with DCIS or Breast Cancer

As a woman with DCIS (ductal carcinoma in situ) or breast cancer that can be removed with surgery, you may be able to choose which type of breast surgery to have. Often, your choice is between breast-sparing surgery (surgery that takes out the cancer and leaves most of the breast) and a mastectomy (surgery that removes the whole breast). Research shows that women with DCIS or breast cancer who have breast-sparing surgery live as long as those who have a mastectomy. Most women with DCIS or breast cancer will lead long, healthy lives after treatment.

Once you are diagnosed, treatment will usually not begin right away. There should be enough time for you to meet with breast cancer surgeons, learn the facts about your surgery choices, and think about what is important to you. Learning all you can will help you make a choice you can feel good about.

This resource is for women who have DCIS or breast cancer that can be removed with surgery. If your tumor cannot be removed with surgery, this resource does not have the information you need. See “Ways to Learn More” on page 16 for ways to find information for you. If you are not sure if this resource is right for you, ask your doctor or nurse.

This resource is a starting point.

This resource is for women who have DCIS or breast cancer that can be removed with surgery. Most women who are facing surgery will need more information than this resource gives them to make a decision. For a list of groups that offer more information and support, see “Ways to Learn More” on page 16.





When I first found out I had breast cancer, I thought it would kill me. Then, I learned that most women treated with surgery for breast cancer live long, healthy lives after treatment.

Three Women...

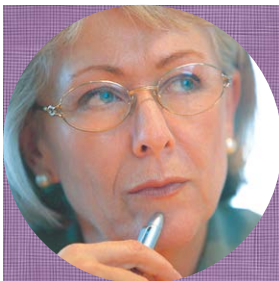
Three Surgery Choices



At first, I was so overwhelmed that I wanted someone to tell me what to do. But, once I took some time to learn about my choices, I decided that breast-sparing surgery followed by radiation therapy was the best treatment for me.



I didn't know where to start. So, I learned about each type of surgery and thought about what was important to me. I also asked my family and friends what they thought. I finally decided that mastectomy was the way to go.



I decided to have a mastectomy, followed by breast reconstruction. There were many things to learn and think about before I made this decision. This choice may not be right for everyone, but it was right for me.

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Talk with Surgeons

Talk with a breast cancer surgeon about your choices. Find out what happens during surgery, the types of problems that sometimes occur, and any treatment you might need after surgery. Ask a lot of questions and learn as much as you can. You may also wish to talk with family members, friends, or others who have had breast cancer surgery.

After talking with a surgeon, think about getting a second opinion. A second opinion means getting the advice of another surgeon. This surgeon might tell you about other treatment options. Or, he or she may agree with the advice you got from the first doctor. Some people worry about hurting their surgeon's feelings if they get a second opinion. But, it is very common and good surgeons don't mind. Also, some insurance companies require it. It is better to get a second opinion than worry that you made the wrong choice.

If you think you might have a mastectomy, this is also a good time to learn about breast reconstruction. Think about meeting with a reconstructive plastic surgeon to learn about this surgery and if it seems like a good option for you.

Learn the Facts about DCIS and Breast Cancer

DCIS

DCIS stands for ductal carcinoma in situ. If you have DCIS, this means that abnormal cells were found in the lining of the breast duct, but they have not spread outside the duct to the breast tissue. These abnormal cells are not invasive cancer, but they may become cancer. DCIS is also called Stage 0 or noninvasive cancer.

Because doctors do not know which cases of DCIS will turn into invasive cancer and which ones will not, DCIS is treated with surgery the same as invasive cancer. Surgery choices for DCIS are based on how much of the breast has abnormal cells in it and where they are in the breast.

Breast Cancer

When you find out you have breast cancer, your doctor will do tests to find out what stage it is. Stage describes how big the tumor is, if it has spread, and where it has spread. Surgery can be used to treat some, but not all, stages of breast cancer. This resource has information for women whose cancer can be removed with surgery. If your cancer cannot be removed with

surgery, this resource does not have the information you need. Ask your doctor or nurse if you are not sure if surgery is right for you.

Learn about Your Surgery Choices

Most women who have DCIS or breast cancer that can be treated with surgery have three surgery choices. They are:

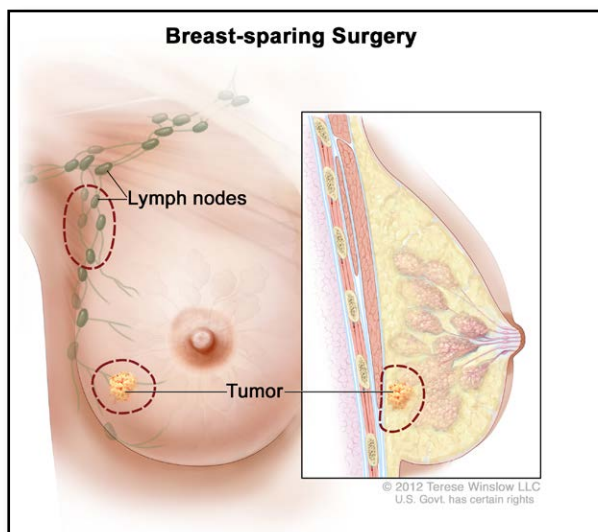
- Breast-sparing surgery, followed by radiation therapy
- Mastectomy
- Mastectomy with breast reconstruction surgery

Breast-Sparing Surgery

Breast-sparing surgery means the surgeon removes only the DCIS or cancer and some normal tissue around it. If you have cancer, the surgeon will also remove one or more lymph nodes from under your arm. Breast-sparing surgery usually keeps your breast looking much like it did before surgery. Other words for breast-sparing surgery include:

- Lumpectomy
- Partial mastectomy
- Breast-conserving surgery
- Segmental mastectomy

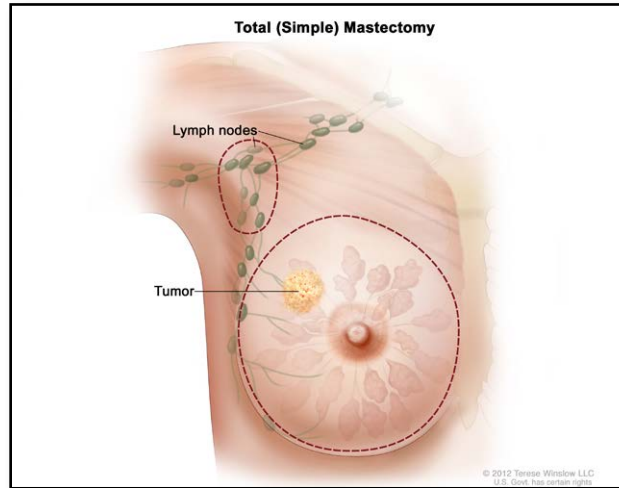
After breast-sparing surgery, most women also receive radiation therapy. The main goal of this treatment is to keep cancer from coming back in the same breast. Some women will also need chemotherapy, hormone therapy, and/or targeted therapy.



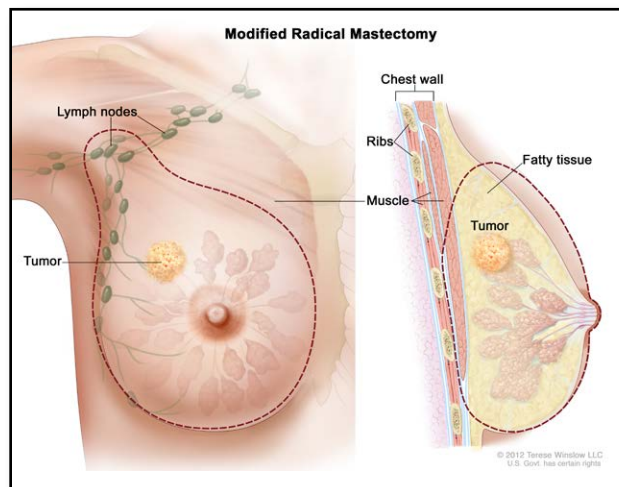
Mastectomy

With a mastectomy, the surgeon removes the whole breast that contains the DCIS or cancer. There are two main types of mastectomy. They are:

- **Total (simple) mastectomy.** The surgeon removes your whole breast. Sometimes, the surgeon also takes out one or more of the lymph nodes under your arm.



- **Modified radical mastectomy.** The surgeon removes your whole breast, many of the lymph nodes under your arm, and the lining over your chest muscles.



Some women will also need radiation therapy, chemotherapy, hormone therapy, and/or targeted therapy.

If you have a mastectomy, you may choose to wear a prosthesis (breast-like form) in your bra or have breast reconstruction surgery.

Breast Reconstruction Surgery

You can have breast reconstruction surgery at the same time as the mastectomy, or anytime after. This type of surgery is done by a plastic surgeon with special training in reconstruction surgery. The surgeon uses an implant or tissue from another part of your body to create a breast-like shape that replaces the breast that was removed. The surgeon may also make the form of a nipple and add a tattoo that looks like the areola (the dark area around your nipple). There are two main types of breast reconstruction surgery:

Breast implant. Breast reconstruction with an implant is often done in steps. The first step is called tissue expansion. In this step, the plastic surgeon places a balloon expander under the chest muscle. Over weeks or months, saline (salt water) will be added to the expander to stretch the chest muscle and the skin on top of it. This process makes a pocket for the implant.

Once the pocket is the correct size, the surgeon will remove the expander and place an implant (filled with saline or silicone gel) into the pocket. This creates a new breast-like shape. Although it looks like a breast, you will not have the same feeling in it because nerves were cut during your mastectomy.

Breast implants do not last a lifetime. If you choose to have an implant, chances are you will need more surgery later on to remove or replace it. Implants can cause problems such as breast hardness, pain, and infection. An implant may also break, move, or shift. These problems can happen soon after surgery or years later.

Tissue flap. In tissue flap surgery, a reconstructive plastic surgeon builds a new breast-like shape from muscle, fat, and skin taken from other parts of your body (usually your belly or back). This new breast-like shape should last the rest of your life. Women who are very thin or obese, who smoke, or who have serious health problems often cannot have tissue flap surgery.

Healing after tissue flap surgery often takes longer than healing after breast implant surgery. You may have other problems, as well. For example, if you have a muscle removed, you might lose strength in the area from which it was taken. Or, you may get an infection or have trouble healing. Tissue flap surgery is best done by a reconstructive plastic surgeon who has special training in this type of surgery and has done it many times before.

To learn more about breast reconstruction, see
“Ways to Learn More” on page 16.



Lymph Nodes, Lymphedema, and Sentinel Lymph Node Biopsy

If you have breast cancer, no matter which type of surgery you have, you will likely have one or more lymph nodes removed from under your arm. This is not the case if you have DCIS, since cells in DCIS will not travel to other parts of the body.

Lymph nodes are part of the immune system, which protects your body against infection and disease. Lymph nodes are small, round organs that are clustered in many areas of the body, such as the underarm. They are connected to one another by lymph vessels, which carry a clear fluid, called lymph. Cancer cells can spread to lymph nodes and other parts of the body through lymph vessels.

Once lymph nodes are removed, they will be checked for cancer. Knowing whether cancer is in the underarm lymph nodes can help the doctor decide if you need any treatment in addition to surgery. And, if so, what type you might need.

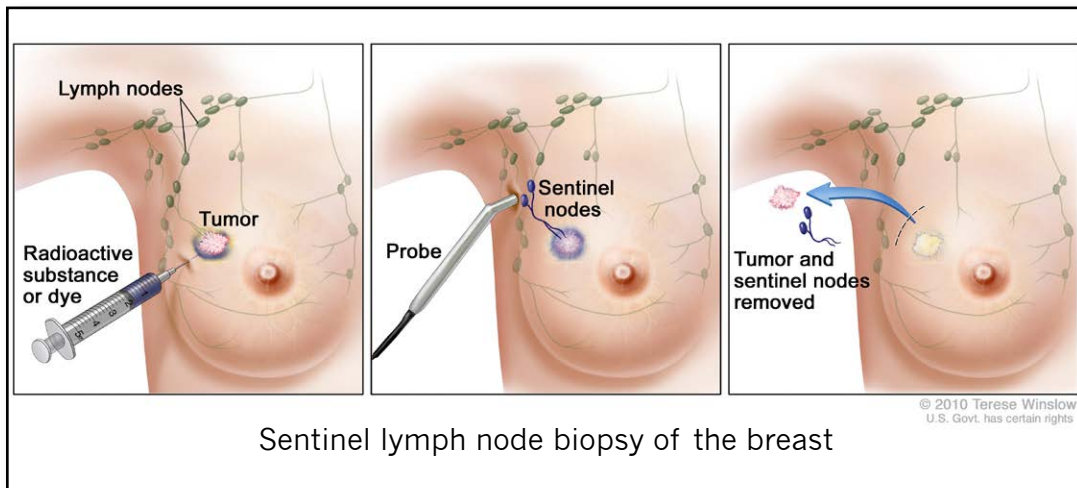
Lymphedema is swelling caused by a build-up of lymph. You may have this type of swelling in the hand, arm, chest, or back on the side of your body where lymph nodes were removed by surgery or damaged by radiation therapy.

Some important facts to know about lymphedema are:

- Lymphedema can show up soon after surgery.
- Sometimes, lymphedema can last for years.
- Lymphedema can show up months or years after cancer treatment is over.
- Lymphedema might develop after an insect bite, minor injury, or burn on the arm where lymph nodes were removed or damaged.
- Lymphedema can cause pain and other problems. To help with these problems, some people find it helpful to work with a physical therapist or doctor who specializes in rehabilitation and has special lymphedema training.

Sentinel Lymph Node Biopsy is a type of surgery in which the surgeon removes a few lymph nodes for testing. First, the surgeon injects a dye, a radioactive tracer, or both into the breast near the tumor. This helps the surgeon see which lymph nodes the lymph from that area of the breast flows to first. Then, he or she removes the node or nodes that contain the dye or radioactive tracer to see if they have cancer. If they do not contain cancer, it is not likely that the other nodes under the arm have cancer. This means that the surgeon usually doesn't have to remove any other lymph nodes.

Fewer lymph nodes are removed with sentinel lymph node biopsy than with standard lymph node surgery. Having fewer lymph nodes removed helps lower the chances that you will develop lymphedema and other problems caused by damage to lymph vessels and lymph nodes.



To find out more about lymphedema, see
“Ways to Learn More” on page 16.

Compare Your Choices



Before Surgery

	Breast-Sparing Surgery	Mastectomy	Mastectomy with Reconstruction
Is this surgery right for me?	Most women with DCIS or breast cancer can choose to have breast-sparing surgery, usually followed by radiation.	<p>Most women with DCIS or breast cancer can choose to have a mastectomy.</p> <p>You may decide to choose a mastectomy if:</p> <ul style="list-style-type: none"> ■ You have small breasts and a large area of DCIS or cancer. ■ You have DCIS or cancer in more than one part of your breast. ■ The DCIS or cancer is under the nipple. ■ You are not able to receive radiation therapy. 	<p>If you have a mastectomy, you might also want breast reconstruction surgery.</p> <p>You can choose to have reconstruction surgery at the same time as your mastectomy or wait and have it later.</p>
Will insurance pay for my surgery?	Every plan is different. Check with your insurance company to find out how much it pays for breast cancer surgery, reconstructive surgery, or other needed treatments.		



Recovering from Surgery

	Breast-Sparing Surgery	Mastectomy	Mastectomy with Reconstruction
Will I have pain after surgery?	Most people have some pain after breast-sparing surgery.	Most people have some pain after mastectomy.	Most people have pain after major surgery, such as mastectomy and reconstruction surgery.
	Talk with your doctor or nurse before surgery about ways to control pain after surgery. Also, tell them if your pain control is not working. To learn more about pain control, see “Ways to Learn More” on page 16.		
How long before I can return to normal activities?	Most women are ready to return to most of their usual activities within 5 to 10 days.	It may take 3 to 4 weeks to feel mostly normal after a mastectomy.	Your recovery will depend on the type of reconstruction you have. It can take 6 to 8 weeks or longer to fully recover from breast reconstruction.

continued on next page

	Breast-Sparing Surgery	Mastectomy	Mastectomy with Reconstruction
What other problems might I have?	You may feel very tired and have skin changes from radiation therapy.	You may feel out of balance if you had large breasts and do not have reconstruction surgery. This may also lead to neck and shoulder pain.	<p>You may not like how your breast-like shape looks.</p> <p>If you have an implant:</p> <ul style="list-style-type: none"> ■ Your breast may harden and can become painful. ■ You will likely need more surgery if your implant breaks or leaks. <p>If you have flap surgery, you may lose strength in the part of your body where a muscle was removed.</p>
	<p>You may get an infection.</p> <p>You may have trouble healing.</p> <p>If you had lymph nodes removed or damaged from radiation therapy, you are more likely to have lymphedema—a problem in which your arm or hand swells. To find out more about lymphedema, see “Lymph Nodes, Lymphedema, and Sentinel Lymph Node Biopsy” on pages 6 and 7 and “Ways to Learn More” on page 16.</p>		
What other types of treatment will I need?	You will usually need radiation therapy. These treatments are usually given 5 days a week for 5 to 8 weeks.	You may also need radiation therapy.	You may also need radiation therapy.
	<p>No matter which type of surgery you choose, you may need other types of treatment, such as:</p> <ul style="list-style-type: none"> ■ Hormone therapy ■ Chemotherapy ■ Targeted therapy 		



Life after Surgery

	Breast-Sparing Surgery	Mastectomy	Mastectomy with Reconstruction
What will my breast look like after surgery?	<p>Your breast should look a lot like it did before surgery.</p> <p>But if your tumor is large, your breast may look different or smaller after breast-sparing surgery.</p> <p>You will have a small scar where the surgeon cut to remove the DCIS or cancer. The length of the scar will depend on how large an incision the surgeon needed to make.</p>	<p>Your breast and nipple will be removed. You will have a flat chest on the side of your body where the breast was removed.</p> <p>You will have a scar over the place where your breast was removed. If you have smaller breasts, your scar is likely to be smaller than if you have larger breasts.</p>	<p>You will have a breast-like shape, but your breast will not look or feel like it did before surgery. And, it will not look or feel like your other breast.</p> <p>You will have scars where the surgeon stitched skin together to make the new breast-like shape.</p> <p>If you have tissue flap reconstruction, you will have scars around the new breast, as well as the area where the surgeon removed the muscle, fat, and skin to make the new breast-like shape.</p>
	<p>To get a better idea of what to expect, ask your surgeon if you can see before and after pictures of other women who have had this type of surgery.</p> <p>Remember, even though surgery leaves scars where the surgeon cut the skin and stitched it back together, scars tend to fade over time.</p>		

	Breast-Sparing Surgery	Mastectomy	Mastectomy with Reconstruction
Will my breast have feeling?	Yes. You should still have feeling in your breast, nipple, and areola (the dark area around your nipple).	Maybe. After surgery, the skin around where the surgeon cut and maybe the area under your arm will be numb (have no feeling). This numb feeling may improve over 1 to 2 years, but it will never feel like it once did. Also, the skin where your breast was may feel tight.	No. The area around your breast will not have feeling.
Will I need more surgery?	If the surgeon does not remove all the DCIS or cancer the first time, you may need more surgery.	If you have problems after your mastectomy, you may need more surgery.	You will need more than one surgery to build a new breast-like shape. The number of surgeries you need will depend on the type of reconstruction you have and if you choose to have a nipple and areola added. Some women may also decide to have surgery on the opposite breast to help it match the new breast-like shape better. If you have an implant, you are likely to need surgery many years later to remove or replace it.
	You may need more surgery to remove lymph nodes from under your arm.		



	Breast-Sparing Surgery	Mastectomy	Mastectomy with Reconstruction
Will the type of surgery I have affect how long I live?	No. Research has shown that women who have breast-sparing surgery live as long as women who have a mastectomy. This does not change if you also have reconstruction.		
What are the chances that my cancer will return in the same area?	<p>About 10% of women (1 out of every 10) who have breast-sparing surgery along with radiation therapy get cancer in the same breast within 12 years.</p> <p>If this happens, you will need a mastectomy, but it is not likely to affect how long you live.</p>	<p>About 5% of women (1 out of every 20) who have a mastectomy will get cancer on the same side of their chest within 12 years.</p>	<p>Your chances are the same as mastectomy, since breast reconstruction surgery does not affect the chances of the cancer returning.</p>



I thought about how each surgery choice would affect my life, and that helped me figure out which one was best for me.

Think about What Is Important to You

After you have talked with a breast cancer surgeon and learned the facts, you may also want to talk with your spouse or partner, family, friends, or other women who have had breast cancer surgery.

Then, think about what is important to you. Thinking about these questions and talking them over with others might help.

Surgery Choices

- If I have breast-sparing surgery, am I willing and able to have radiation therapy 5 days a week for 5 to 8 weeks?
- If I have a mastectomy, do I also want breast reconstruction surgery?
- If I have breast reconstruction surgery, do I want it at the same time as my mastectomy?
- What treatment does my insurance cover? What do I have to pay for?

Life after Surgery

- How important is it to me how my breast looks after cancer surgery?
- How important is it to me how my breast feels after cancer surgery?
- If I have a mastectomy and do not have reconstruction, will my insurance cover prosthesis and special bras?
- Where can I find a breast prosthesis and special bras?

Learning More

- Do I want a second opinion?
- Is there someone else I should talk with about my surgery choices?
- What else do I want to learn or do before I make my choice about breast cancer surgery?



"It wasn't easy to choose the best type of surgery for me. But, after I learned all I could and talked with my doctor, partner, and friends, I know I made the best choice for me."

Make Your Choice

You have talked with your surgeon, learned the facts, and thought about what is important to you—it's time to decide which surgery is best for you.



"Now that my surgery is over, I feel good about the choices I made."

To learn more about life after cancer, you might want to read *Facing Forward: Life After Cancer Treatment*. To get a copy of this booklet, visit www.cancer.gov/publications or call 1-800-4-CANCER (1-800-422-6237).



Ways to Learn More

About Breast Cancer

National Cancer Institute

We offer research-based information for patients and their families, health professionals, cancer researchers, advocates, and the public.

- **Call:** NCI's Cancer Information Service at 1-800-4-CANCER (1-800-422-6237)
- **Visit:** www.cancer.gov or www.cancer.gov/espanol
- **Chat:** www.cancer.gov/livehelp
- **E-mail:** cancergovstaff@mail.nih.gov

Cancer Prevention and Treatment Fund

This program of the National Research Center for Women & Families uses objective, research-based information to encourage new, more effective programs and policies for the prevention and treatment of cancer in adults and children.

- **Call:** 202-223-4000
- **Visit:** www.stopcancerfund.org
- **E-mail:** info@stopcancerfund.org

Office on Women's Health

National Women's Health Information Center

The federal government's source for women's health information.

- **Call:** 1-800-994-9662
- **Visit:** www.womenshealth.gov

Agency for Healthcare Research and Quality

Provides publications and online information for patients and families to help them make informed, evidence-based choices about their health care.

- **Call:** 301-427-1104
- **Visit:** www.ahrq.gov and www.effectivehealthcare.ahrq.gov

American Cancer Society

Dedicated to helping persons who face cancer. Supports research, patient services, early detection, treatment, and education.

■ **Call:** 1-800-227-2345

■ **Visit:** www.cancer.org

About Lymphedema

National Lymphedema Network

Nonprofit organization that provides education and guidance to lymphedema patients, health care professionals, and the general public by providing information about how to prevent and manage lymphedema.

■ **Call:** 1-800-541-3259

■ **Visit:** www.lymphnet.org

■ **E-mail:** nln@lymphnet.org

About Breast Reconstruction Surgery and Implants

National Library of Medicine's Medline Plus®

MedlinePlus is the National Institutes of Health's website for patients and their families and friends. Produced by the National Library of Medicine, it brings you information about diseases, conditions, and wellness issues in language you can understand. MedlinePlus offers free, reliable, up-to-date health information, anytime and anywhere.

■ **Visit:** www.nlm.nih.gov/medlineplus/breastreconstruction.html

U.S. Food and Drug Administration (FDA)

FDA's mission is to make sure the products they approve are safe and effective, and that includes breast implants. It is a federal agency within the U.S. Department of Health and Human Services.

■ **Visit:** <http://www.fda.gov/medicaldevices/productsandmedical-procedures/implantsandprosthetics/breastimplants/default.htm>

For more resources, see National Organizations That Offer Cancer-Related Services at www.cancer.gov. or call 1-800-4-CANCER (1-800-422-6237) for more help.



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