National Comprehensive Cancer Network®

2026

NCCN Guidelines for Patients®

Cancer care recommendations from leading experts at the National Comprehensive Cancer Network® (NCCN®)

Ductal Carcinoma In Situ



Presented with support from NCCN FOUNDATION Guiding Treatment. Changing Lives.

Available online at NCCN.org/patientguidelines



NCCN Guidelines for Patients®

The essential guide for people facing cancer.

Based on care recommendations from leading cancer experts.

Explains high-quality cancer care provided at state-of-the-art cancer centers.

Reviewed and revised every year.

Did you know that top cancer centers across the United States work together to improve cancer care? This alliance of leading cancer centers is called the National Comprehensive Cancer Network® (NCCN®).

Because cancer care is always evolving, NCCN develops and frequently updates evidence-based cancer care recommendations used by health care providers worldwide. These recommendations are known as the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®).

The NCCN Guidelines for Patients plainly explain these expert recommendations, so you can talk with your care team about the best care for you.

These NCCN Guidelines for Patients are based on the NCCN Guidelines® for Breast Cancer, Version 1.2026 — January 16, 2026.

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1
About DCIS

5 What is DCIS?

5 What are the parts of the breast?

6 How is DCIS treated?

6 How can I get the best care?

Ductal carcinoma in situ (DCIS) is found in the cells that line the ducts in the breast. DCIS is stage 0, or noninvasive, cancer. This means the cancerous cells are in place (in situ) and haven't spread outside the ducts.

What is DCIS?

Ductal carcinoma in situ (DCIS), or intraductal carcinoma, is found in the cells that line the ducts of the breasts. Ducts are thin tubes that carry milk. DCIS is noninvasive cancer. Noninvasive means the cancerous cells are in place (in situ) and haven't spread anywhere else.

What are the parts of the breast?

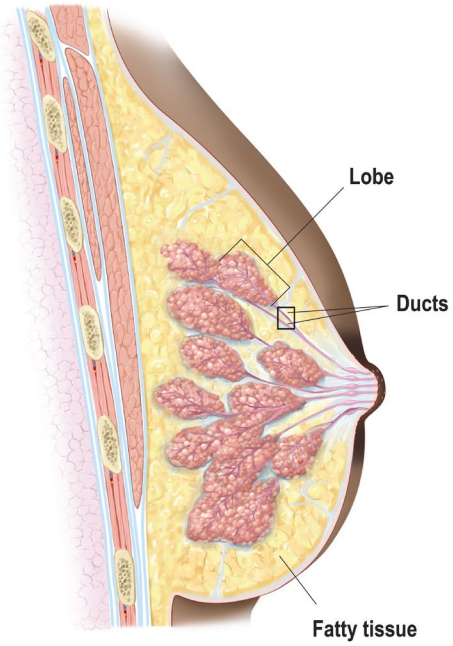
The breast is made of milk ducts, fat, nerves, lymph and blood vessels, ligaments, and other connective tissue. Behind the breast is the pectoral (chest) muscle and rib bones. Muscles and ligaments help hold the breast in place.

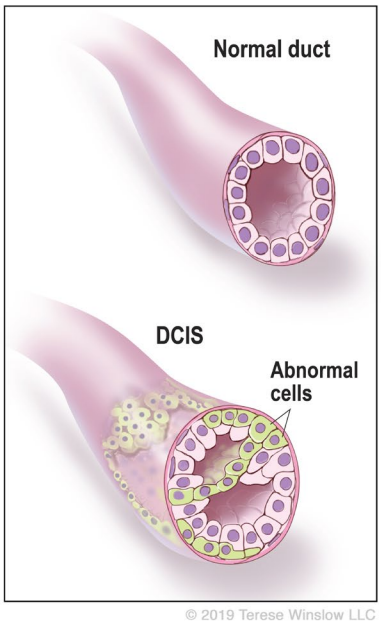
Breast tissue contains glands that can make milk. These milk glands are called lobules. Lobules look like tiny clusters of grapes. Small tubes called ducts connect the lobules to the nipple.

The ring of darker breast skin is called the areola. The raised tip within the areola is called the nipple. The nipple-areola complex is a term that refers to both parts.

DCIS

Ductal carcinoma in situ (DCIS) is found in the cells that line the thin tubes (ducts) that carry milk to the breast. The cancerous cells are in place (in situ) and haven't spread.





How is DCIS treated?

DCIS is usually treated with surgery to prevent cancer from spreading outside the milk ducts or milk glands (lobules) into the surrounding breast tissue or nearby lymph nodes. After surgery, you might have radiation therapy followed by endocrine therapy.

At the time of surgery, about 1 out of 10 people with DCIS have underlying breast cancer and about 1 in 10 people with DCIS will develop invasive breast cancer within 2 to 5 years. Therefore, more treatment, such as drug (systemic therapy), might be needed based on your situation.

Anyone can develop breast cancer, including people assigned male at birth. Although there are some differences between breast cancers in people assigned male at birth and those assigned female, treatment is very similar for all genders.

How can I get the best care?

Advocate for yourself. You have an important role to play in your care. Many people feel more satisfied when they actively take part in planning their cancer care.

The NCCN Guidelines for Patients will help you play a larger role in your care. Discuss the recommendations in this guide with your care team. Ask questions about your options and share your goals and concerns.

Don't know what to ask? You're not alone. That's why we include suggested questions to ask at the end of chapters.

How this guide can help you

Making decisions about cancer care is stressful. There's a lot to learn, and you don't know what the future holds.

Use this guide to get the information and support you need.

Patients, doctors, and other health care professionals trust the NCCN Guidelines for Patients. This guide uses clear, everyday language to explain current cancer care recommendations made by respected experts in the field. Their recommendations are based on the latest research and practices at leading cancer centers.

Your health is unique to you, so your cancer care should be, too. As you read this guide, you'll learn which treatments are likely to provide the best results for you. And you'll be better prepared to talk with your care team.

Keep reading to find the best care for you.

2
Testing for DCIS

8 General health tests

10 Imaging tests

11 Biopsy

12 Estrogen receptor status

12 Genetic cancer risk testing

13 Key points

13 Questions to ask

Not all breast cancers are the same. Treatment planning starts with testing. This chapter presents an overview of the tests you might receive and what to expect.

Breast cancer treatment is becoming more individualized, and it's important to get the right testing. This takes time but is very helpful in making sure you get the best treatment for your type of breast cancer. Biopsy and imaging studies are an important part of testing. Tests you might receive are listed in **Guide 1**.

General health tests

Medical history

A medical history is a record of all health issues and treatments you've had in your life. It asks about past surgeries and current health conditions. Bring a list of old and new medicines and any over-the-counter medicines, herbals, or supplements you take. Some supplements interact with and affect medicines that your care team may prescribe. Also tell your care team about any symptoms you have.

- Since some cancers are fed by hormones such as estrogen or progesterone, it's important to let your medical team know if you're taking any hormones by mouth, through injections, or by placement of a hormone pellet.

Family history

Some cancers and other diseases can run in families. Your care team will ask about the health history of family members who are blood relatives. This information is called family history. Ask members on both sides of your family about their health issues, like heart disease, cancer, and diabetes, and at what age they were diagnosed. It's important to know the specific type of cancer, where the cancer started, if it's in multiple locations, and if they had genetic testing.

Physical exam

During a physical exam, your health care provider may:

- Check your temperature, blood pressure, pulse, and breathing rate
- Check your height and weight
- Listen to your lungs and heart

Guide 1
Possible tests

Medical history and physical exam
Diagnostic mammogram of both breasts
Biopsy with pathology review
Determine cancer estrogen receptor (ER) status
Genetic counseling, if at risk for hereditary breast cancer
Breast MRI as needed
Distress screening

- Look in your eyes, ears, nose, and throat
- Feel and apply pressure to parts of your body to see if organs are of normal size, are soft or hard, or cause pain when touched
- Examine your breasts to look for lumps, nipple discharge or bleeding, or skin changes
- Feel for enlarged lymph nodes in your neck, underarm, and groin

Clinical breast exam

A clinical breast exam is a physical exam of the bare breast performed by a health care provider to check for lumps or other changes. It's done while you're seated and/or lying down. Your provider should take time to palpate (feel) the entire breast, including the armpit. A nurse or assistant might also be in the room during the exam.

Distress screening

Dealing with a cancer diagnosis can be stressful and may cause further distress. Distress is an unpleasant experience of a mental, physical, social, or spiritual nature. It can affect how you feel, think, and act. Distress might include feelings of sadness, fear, helplessness, worry, anger, and guilt. You may also experience depression, anxiety, and sleep issues. Your treatment team will screen your level of distress. This is part of your cancer care.

What's the difference between a screening and diagnostic mammogram?

A mammogram is a picture of the inside of your breast made using x-rays. During a mammogram, the breast is pressed between 2 plates while you stand in different positions. Multiple x-rays are taken. A computer combines the x-rays to make detailed pictures.

Screening mammogram

- Done on a regular basis when there are no signs or symptoms of breast cancer. Results take a few days.

Diagnostic mammogram

- Used for people with symptoms, such as a lump, pain, skin thickening or nipple discharge, or those whose breasts have changed shape or size. An ultrasound is often used with a diagnostic mammogram.
- Also used to take a closer look at an abnormal area found in a screening mammogram.
- A radiologist will evaluate the diagnostic mammogram while you wait so if additional testing is needed, it can be done right away.

Both types of mammograms use low-dose x-rays to examine the breast.

Imaging tests

Imaging tests take pictures of the inside of your body. These tests show where the cancer is located and the amount of the breast involved. A radiologist, a medical expert in interpreting imaging tests, will interpret the test and send a report to your care team.

Diagnostic mammogram

A mammogram is a picture of the inside of your breast. The pictures are made using x-rays. A computer combines the x-rays to make detailed pictures. A bilateral mammogram includes pictures of both breasts. Mammogram results are used to plan treatment.

Diagnostic mammograms look at specific areas of your breasts, which may not be clearly seen on screening mammograms. Diagnostic mammograms include extra compression of certain areas of the breast, more magnification views, or rolling the breast to image additional areas. Other tests may include a breast MRI.

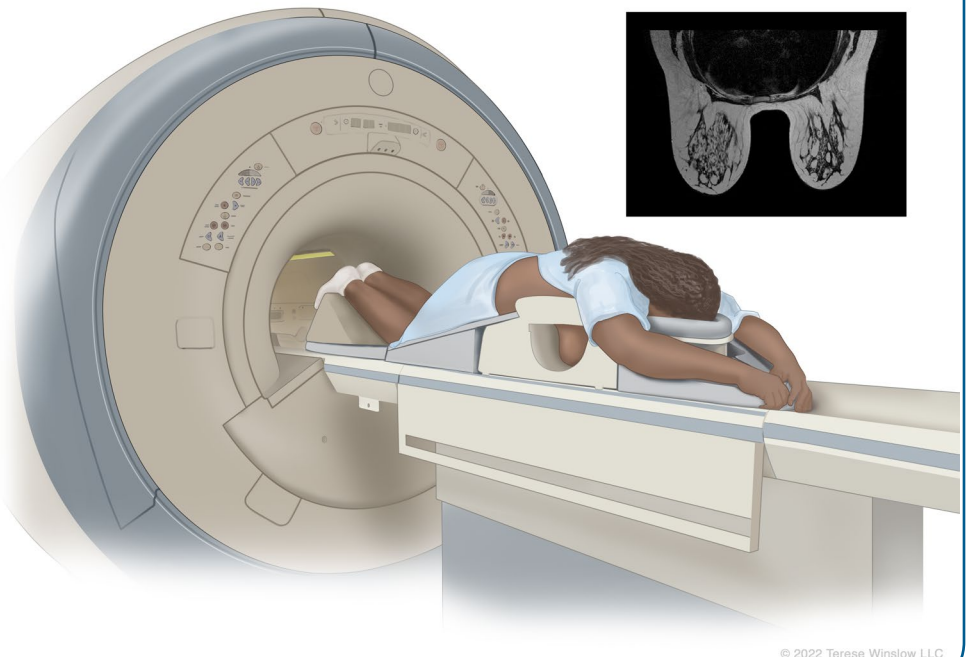
Breast MRI scan

An MRI scan uses radio waves and powerful magnets to take pictures of the inside of your body. MRI doesn't use radiation. If needed, an MRI would be used in addition to a diagnostic mammogram. Because of the very strong magnets used in the MRI machine, tell the technologist if you have any metal in your body.

Contrast material is used to improve the pictures of the breast. Contrast is given through an intravenous (IV) line placed in a vein, typically in the hand or near the elbow.

Breast MRI

If needed, a breast MRI will be done in addition to a mammogram. In a breast MRI, you are positioned face down with your arms overhead.



Biopsy

A biopsy removes a sample of tissue from your body for testing. In DCIS, there isn't a tumor, so the cancerous cells or area of concern are biopsied. A pathologist will examine the biopsy for cancer and write a report called a pathology report. Ask questions about your biopsy results and what it means for your treatment.

There are different types of biopsies. Some biopsies are guided using imaging, such as mammography. The main area of concern is biopsied first. Other areas may also be biopsied. You may have tissue removed from the breast, lymph nodes, or both.

Types of possible biopsies include:

- **Fine-needle aspiration** and **core needle biopsy** use needles of different sizes to remove a sample of tissue or fluid.
- **Vacuum-assisted core biopsy** uses suction through a needle to remove the sample.
- **Incisional biopsy** removes a small amount of tissue through a cut in the skin.
- **Excisional biopsy** removes the entire abnormal area. This isn't the preferred type of biopsy for DCIS, but it may be necessary if other methods aren't possible or the biopsy results don't match the expected findings. An excisional biopsy is usually done using anesthesia in an operating room.

Before biopsies are performed, the area is usually injected with numbing medicine. A core needle biopsy removes more than one tissue sample, but usually through the same area on the breast. The samples are small. The needle is often guided into the area with imaging. When mammography is used during a biopsy, it's called a stereotactic needle biopsy.

One or more clips may be placed near the biopsy area. The clips are small, painless, and made of metal. They mark the site for future treatment and imaging. The clips stay in place until surgery. If the area biopsied is benign, the clip will remain in place to mark the biopsy site on future imaging. The clips cause no problems, even if they are left in place for a long time. You'll be able to go through airport security and have an MRI.

Biopsy results

Your pathology report will contain information about histology. Histology is the study of the anatomy (structure) of cells, tissues, and organs under a microscope. It's used to make treatment decisions. Your health care provider may recommend an open biopsy (surgery) to remove (excise) the area of concern to confirm histology, such as ductal carcinoma. Talk to your health care provider for more information on next steps.

Estrogen receptor status

Estrogen is a hormone that plays a role in breast development. It's made by a gland in your body. When hormones, such as estrogen, attach to receptors (proteins) inside breast cancer cells, they can cause cancer to grow. If found, these estrogen receptors may be targeted using endocrine therapy. For more information, see *Chapter 3: Types of treatment.*

Immunohistochemistry

Immunohistochemistry (IHC) is a special staining process used to find estrogen receptors in breast cancer cells. Using a microscope, a pathologist will measure how many cells have estrogen receptors and the number of estrogen receptors inside each cell. Test results will state whether the breast cancer cells are estrogen receptor-positive (ER+) or estrogen receptor-negative (ER-).

Estrogen receptor-positive

Estrogen receptor-positive (ER+) breast cancer cells may need estrogen to grow. In ER+ breast cancer, IHC finds estrogen hormone receptors in at least 1 out of every 100 cancer cells. Cancer cells deprived of estrogen or that have their ER signal blocked with endocrine therapy may stop growing or die.

Estrogen receptor-negative

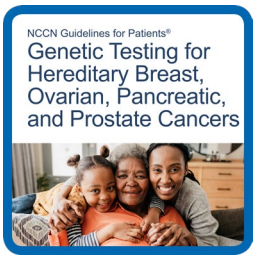
Estrogen receptor-negative (ER-) breast cancer cells don't have estrogen hormone receptors. These cancer cells don't need estrogen to grow. Therefore, estrogen-blocking treatment isn't effective.

HER2 testing isn't used to diagnose or treat DCIS.

Genetic cancer risk testing

About 1 out of 20 breast cancers are hereditary which means they are passed down from birth parents through DNA. Depending on your family history or other features of your cancer, your health care provider might refer you for genetic counseling and hereditary genetic testing to learn more about your cancer. A genetic counselor or trained provider will speak with you about the results. Test results may guide treatment planning.

Genetic testing is done using blood or saliva (spitting into a cup or taking a cheek swab). The goal is to look for gene mutations inherited from your biological (birth) parents, called germline mutations. Some mutations can put you at risk for more than one type of cancer. You can pass these genes on to your children. Also, other family members might carry these mutations. Tell your care team if there's a family history of cancer.



More information on genetic cancer risk testing can be found in *NCCN Guidelines for Patients: Genetic Testing for Hereditary Breast, Ovarian, Pancreatic, and Prostate Cancers*, available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.

BRCA mutation tests

Everyone has *BRCA* genes. Normal *BRCA* genes help to prevent tumor growth, help fix damaged cells, and help cells grow normally. However, mutations in *BRCA1* or *BRCA2* increase the risk of breast, ovarian, prostate, colorectal, pancreatic, and melanoma skin cancers. Mutated *BRCA* genes can also affect how some treatments work.

The technology for genetic testing has improved, so if you tested negative for a gene mutation over 10 years ago, you may be re-tested.

Other genes that might be tested

Other genes, such as *PALB2*, *p53*, *CHEK2*, and ATM, might be tested. For example, *PALB2* normally helps prevent cancer. When *PALB2* mutates, it no longer works correctly. People with a *PALB2* mutation have a higher risk of developing breast cancer.

Key points

- A diagnostic mammogram includes detailed pictures of one or both breasts. It's different from a screening mammogram.
- During a biopsy, tissue or fluid samples are removed for testing. Samples are needed to confirm the presence of cancer and to perform cancer cell tests.
- A sample from your biopsy will be tested for estrogen receptor (ER) status and histology. This provides information about the behavior of your cancer, as well as treatments your cancer may respond to. Other tests may be performed.
- About 1 out of 20 breast cancers are hereditary. Depending on your family history or other features of your cancer, your health care provider might refer you for hereditary genetic testing or to a genetic counselor.

Questions to ask

- What type of biopsy will I have?
- What tests will be done on the biopsy sample and how long will it take to get the results?
- What's the cancer's ER status?
- What does the cancer's ER status mean for my treatment options?
- Should I have genetic cancer risk testing or speak to a genetic counselor?

What's next?

The next chapter provides information on the types of treatment, what to expect from treatment, and some possible side effects of treatment.

3
Types of treatment

15 Your care team

15 Treatment overview

16 Lumpectomy and partial mastectomy

16 Mastectomy

18 Sentinel lymph node biopsy

19 Radiation therapy

19 Endocrine therapy

21 Clinical trials

23 Supportive care

24 Side effects

24 Survivorship

25 Key points

25 Questions to ask

There's more than one treatment for ductal carcinoma in situ (DCIS). This chapter describes treatment options and what to expect from treatment. Together, you and your care team will choose a treatment plan that's best for you.

Your care team

Treating cancer takes a team approach. Treatment decisions should involve a team of health care and psychosocial care professionals from different backgrounds who have knowledge and experience in your type of cancer. This team is united in planning and implementing your treatment. Ask who will coordinate your care.

Treatment overview

Surgery is an operation or procedure to remove cancer from the body. Surgery is the main treatment for ductal carcinoma in situ (DCIS). But this is only one part of a treatment plan.

When preparing for surgery, seek the opinion of an experienced surgeon. The surgeon should be an expert in your type of surgery. Hospitals that perform many surgeries often have better results. You can ask for a referral to a hospital or cancer center that has experience in treating your type of cancer. As explained in the first chapter, sometimes treatment is needed before surgery. Ask your care team for more information.

Goal of surgery

The goal of surgery is to remove all of the cancer. To do this, cancer cells are removed along with an area of normal-looking tissue called the surgical margin. The surgical margin may look normal during surgery, but cancerous cells may be found when viewed under a microscope by a pathologist. In a negative, or clear, margin, no cancer cells are found in the normal-looking tissue around the edge of the area of concern. In a positive margin, cancer cells are found in the normal-looking tissue around the edge of the area of concern.

After surgery, you may receive treatment such as radiation to kill any remaining cancer cells. You might have a wound drain to prevent fluid from collecting in the body after surgery. These drains are usually removed after a few days.

> **"Take things one day or even one step at a time. It might get harder before it gets better, but it will get better."**

Lumpectomy and partial mastectomy

Lumpectomy, or partial mastectomy, is the removal of abnormal cells. It doesn't remove the whole breast. A lumpectomy is also called breast-conserving therapy or breast-conserving surgery.

Before surgery, a wire or seed is used to mark the DCIS. This allows the surgeon to remove the DCIS accurately.

In a lumpectomy, the surgeon aims to remove all DCIS with a rim of healthy tissue around it, called a negative, or clear, surgical margin. Having a negative surgical margin decreases the chance that cancer may return in that area of the breast. You may need more than one surgery to achieve negative margins and ensure all the cancer was removed. A lumpectomy is usually followed by radiation therapy to part or all of the breast.

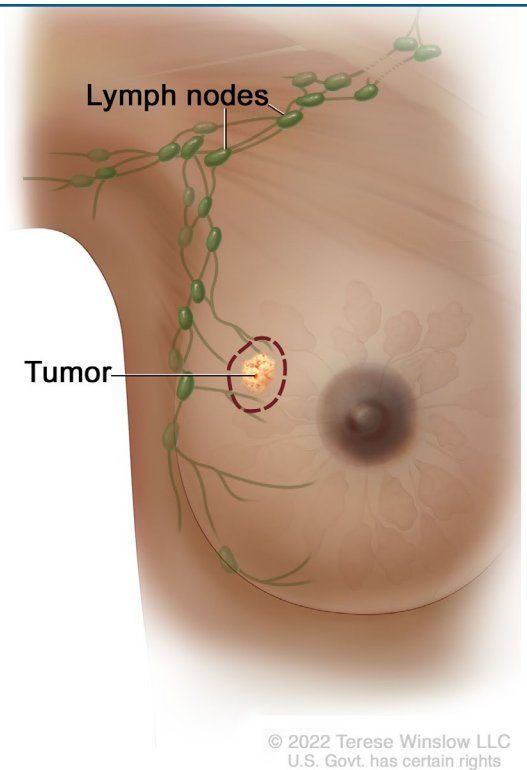
The breast might not look the same after a lumpectomy. Speak to your surgeon about how a lumpectomy might affect the look and shape of your breast and any other concerns you have. You can also seek the opinion of a plastic surgeon.

Mastectomy

A mastectomy removes all of the breast. In some cases, the surgeon may do a sentinel lymph node biopsy before removing the breast (see the next section). Sentinel lymph nodes are the first lymph nodes where the cancer cells are likely to spread from the main cancer area.

Lumpectomy

Lumpectomy is the removal of abnormal cells or tumor (dotted line) and not the whole breast. It's also called a partial mastectomy, breast-conserving therapy, or breast-conserving surgery.



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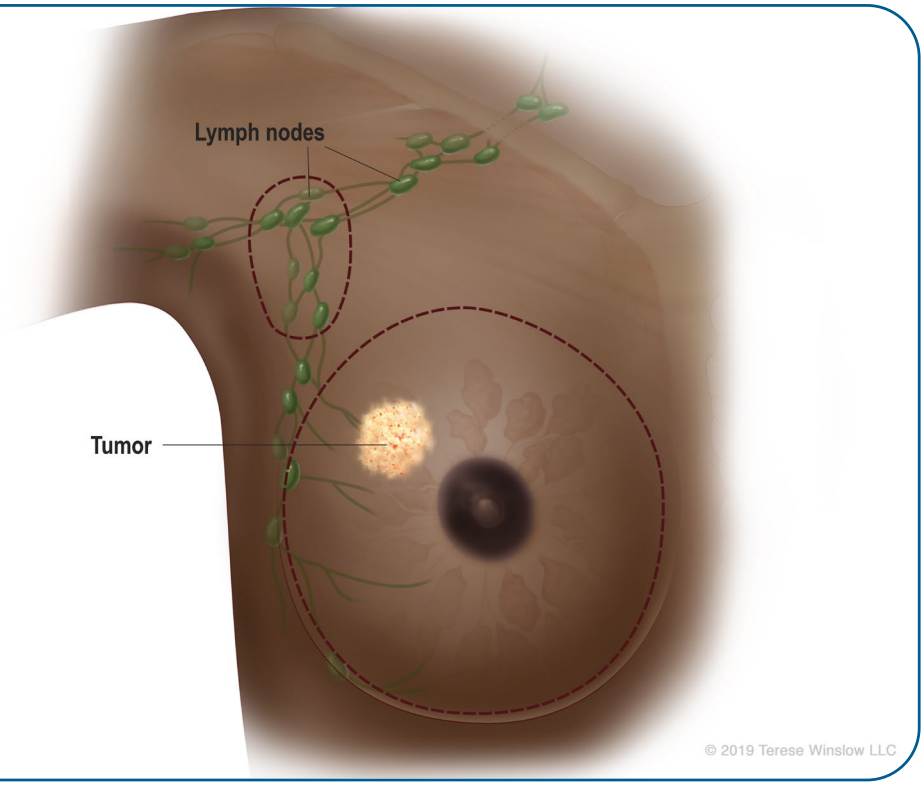
Types of mastectomies include:

- **Total mastectomy, or simple mastectomy,** removes the whole breast with a flat skin closure.
- **Skin-sparing mastectomy** removes the breast but not all of the skin, so you can have breast reconstruction that might include flaps and/or implants.
- **Nipple-sparing mastectomy** preserves the nipple-areola complex as well as all of the skin. Not everyone is a candidate for nipple-sparing mastectomy based upon location of cancer, breast size, and breast ptosis (degree of drooping).

Breast reconstruction is an option after a mastectomy. It might be done at the same time as the mastectomy (immediate) or at some time after completion of cancer treatment (delayed). Breast reconstruction is often done in stages. If you're considering breast reconstruction surgery, it requires collaboration between a breast surgeon and a reconstructive (plastic) surgeon.

Total (simple) mastectomy

In a total mastectomy, the entire breast is removed (dotted line). Some lymph nodes under the arm may also be removed.



Sentinel lymph node biopsy

This procedure is only done in some cases of DCIS.

A sentinel lymph node (SLN) is the first lymph node where cancer cells are most likely to spread. There can be more than one sentinel lymph node. Removal of the sentinel lymph nodes during surgery is called a sentinel lymph node biopsy (SLNB). This procedure may be done during surgery, such as a mastectomy (surgery to remove the breast), to determine if any cancer cells have traveled to the lymph nodes. Just because these nodes are removed doesn't mean they are positive for cancer.

To find the sentinel lymph nodes, radioactive material and other dyes are injected into the breast. The injected materials then travel through the lymphatics in the breast to the lymph nodes. This helps the surgeon find the sentinel lymph nodes. The nodes containing the radioactive material or dye are removed and tested by a pathologist. If cancer is found, then more lymph nodes may be removed.

The best-known way to treat a particular disease based on past clinical trials is called standard of care. There may be more than one treatment considered standard of care. Ask your care team what treatment options are available and if a clinical trial might be right for you.



Radiation therapy

Radiation therapy (RT) uses high-energy radiation from x-rays (photons), protons, and other sources to kill any cancer cells that remain after surgery. Different types of radiation can be used for DCIS. Ask your care team which radiation option(s) are best for you and what side effects to expect.

The types of radiation therapy used in DCIS are:

- **Whole breast radiation therapy (WBRT)** is used to treat the entire breast. Sometimes additional treatments may be given to an area. This is called a boost.
- **Partial breast irradiation (PBI)** is used to treat only an area of the breast.

External beam radiation therapy

External beam radiation therapy (EBRT) uses a machine outside the body to aim radiation at the whole breast (WBRT) or an area of the breast (PBI).

Internal radiation

Internal radiation (brachytherapy) is only used for PBI. It involves placing one or more small tubes into the cancerous area of the breast. A small radioactive seed travels into the tube(s) and delivers radiation to the cancer area of the breast from inside the body.

Endocrine therapy

Endocrine therapy blocks estrogen or progesterone to treat hormone receptor-positive (HR+) breast cancer. The endocrine system is made up of organs and tissues that produce hormones. Hormones are natural chemicals released into the bloodstream.

There are 4 hormones that might be targeted in endocrine therapy:

- **Estrogen** is made mainly by the ovaries but is also made by other tissues in the body, such as fat tissue.
- **Progesterone** is made mainly by the ovaries.
- **Luteinizing hormone-releasing hormone (LHRH)** is made by a part of the brain called the hypothalamus. It tells the ovaries to make estrogen and progesterone and testicles to make testosterone. LHRH is also called gonadotropin-releasing hormone (GnRH).
- **Androgen** is made by the adrenal glands, testicles, and ovaries.

Hormones may cause breast cancer to grow. Endocrine therapy stops your body from making hormones or blocks what hormones do in the body. This can slow cancer growth, shrink the cancer for a period of time, or prevent the cancer from returning.

Endocrine therapy is sometimes called hormone therapy or anti-estrogen therapy. It's different from hormone replacement therapy (HRT) used for menopause.

Endocrine therapy suppresses hormone production and affects the ability to become pregnant. People who want to have children in the future should be referred to a fertility specialist before starting endocrine therapy. Endocrine therapy usually lasts 5 years.

Types of endocrine therapy can be found in **Guide 2**.

Guide 2
Endocrine therapy types

Bilateral oophorectomy	Surgery to remove both ovaries.
Ovarian ablation	Radiation to permanently stop the ovaries from making hormones.
Ovarian or testosterone suppression	Drugs to temporarily stop the ovaries or testicles from making hormones such as LHRH and GnRH. • LHRH agonists include Goserelin (Zoladex) and Leuprolide (Lupron Depot). These are injected every 4 or 12 weeks. They don't affect estrogen made by the ovaries. • GnRH agonists might be used to suppress ovarian hormone or testosterone production.
Aromatase inhibitors (AIs)	Drugs to stop a type of hormone called androgen from changing into estrogen by interfering with an enzyme called aromatase. AIs don't affect estrogen made by the ovaries. Nonsteroidal AIs include Anastrozole (Arimidex) and Letrozole (Femara). Exemestane (Aromasin) is a steroidal AI.
Estrogen receptor (ER) modulators or anti-estrogens	• Selective estrogen receptor modulators (SERMs) block estrogen from attaching to hormone receptors. Tamoxifen and Toremifene (Fareston) are SERMs. • Selective estrogen receptor degraders (SERDs) block and destroy estrogen receptors. Fulvestrant (Faslodex) and Elacestrant (Orserdu) are SERDs.
Hormones	Examples include ethinyl estradiol, fluoxymesterone, and Megestrol acetate (Megace).

Testosterone

For people assigned male at birth whose bodies continue to make testosterone, endocrine therapy includes tamoxifen or an aromatase inhibitor with a testosterone-suppressing therapy.

Premenopause

If you have menstrual periods, you're in premenopause. In premenopause, the ovaries are the main source of estrogen and progesterone.

- Tamoxifen is the endocrine treatment option for people in premenopause.

Menopause

In menopause, the ovaries permanently stop producing hormones and menstrual periods stop. Estrogen and progesterone levels are low, but the adrenal glands, liver, and body fat continue to make small amounts of estrogen. If you don't have periods, a test using a blood sample may be used to confirm your status.

If you stopped having periods due to removal of your uterus (hysterectomy) but you still have your ovaries, then you should have your menopausal status confirmed with a blood test. If both ovaries have been removed (with or without your uterus), you're in menopause.

- Tamoxifen or an aromatase inhibitor is the endocrine treatment for people in menopause. Aromatase inhibitors include anastrozole (Arimidex), exemestane (Aromasin), and letrozole (Femara).

Preventing pregnancy during treatment

If you become pregnant during radiation therapy or endocrine therapy, it can cause birth defects. Non-hormonal birth control methods, such as intrauterine devices (IUDs) and barrier methods, are preferred in people with a breast cancer diagnosis. Types of barrier methods include condoms, diaphragms, cervical caps, and contraceptive sponges.

Clinical trials

You may also be able to receive treatment through a clinical trial. A clinical trial is a type of medical research study. After being developed and tested in a lab, potential new ways of treating cancer need to be studied in people.

If found to be safe and effective in a clinical trial, a drug, device, or treatment approach may be approved by the U.S. FDA.

Everyone with cancer should carefully consider all of the treatment options available for their cancer type, including standard treatments and clinical trials. Talk to your doctor about whether a clinical trial may make sense for you.

Phases

Most cancer clinical trials focus on treatment and are done in phases.

- **Phase 1** trials study the safety and side effects of an investigational drug or treatment approach.
- **Phase 2** trials study how well the drug or approach works against a specific type of cancer.

- **Phase 3** trials test the drug or approach against a standard treatment. If the results are good, it may be approved by the FDA.
- **Phase 4** trials study the safety and benefit of an FDA-approved treatment.

Who can enroll?

It depends on the clinical trial's rules, called eligibility criteria. The rules may be about age, cancer type and stage, treatment history, or general health. They ensure that participants are alike in specific ways and that the trial is as safe as possible for the participants.

Informed consent

Clinical trials are managed by a research team. This group of experts will review the study with you in detail, including its purpose and the risks and benefits of joining. All of this information is also provided in an informed consent form. Read the form carefully and ask questions before signing it. Take time to discuss it with people you trust. Keep in mind that you can leave and seek treatment outside of the clinical trial at any time.

Will I get a placebo?

Placebos (inactive versions of real medicines) are almost never used alone in cancer clinical trials. It's common to receive either a placebo with a standard treatment, or a new drug with a standard treatment. You will be informed, verbally and in writing, if a placebo is part of a clinical trial before you enroll.



Finding a clinical trial

In the United States

NCCN Cancer Centers
NCCN.org/cancercenters

The National Cancer Institute (NCI)
cancer.gov/about-cancer/treatment/clinical-trials/search

Worldwide

The U.S. National Library of Medicine (NLM)
clinicaltrials.gov

Need help finding a clinical trial?

NCI's Cancer Information Service (CIS)
1.800.4.CANCER (1.800.422.6237)
cancer.gov/contact

Are clinical trials free?

There's no fee to enroll in a clinical trial. The study sponsor pays for research-related costs, including the study drug. But you may need to pay for other services, like transportation or childcare, due to extra appointments. During the trial, you'll continue to receive standard cancer care. This care is often covered by insurance.

Supportive care

Supportive care is an important part of cancer care. The goal is to improve your quality of life during and after cancer treatment. Supportive care is for everyone with cancer and their families, not just for people at the end of life.

Supportive care includes a wide range of services. Supportive care prevents or manages the symptoms of cancer and the side effects of cancer treatment, like pain and cancer-related fatigue. It also addresses the mental, social, emotional, and spiritual concerns faced by people with cancer.

Supportive care provides help with additional needs, such as:

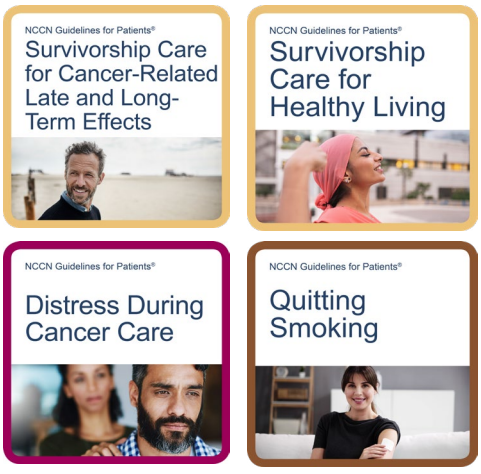
- Making treatment decisions
- Coordinating your care
- Paying for care
- Planning for advanced care and end of life

Read more about the types of support you may receive in *NCCN Guidelines for Patients: Palliative Care*, available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Supportive care resources

More information on supportive care is available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Side effects

All cancer treatments can cause unwanted health issues called side effects. Side effects depend on many factors, including drug type and dose, length of treatment, and the person. Some side effects may just be unpleasant. Others can be very serious. Tell your care team about any new or worsening symptoms.

Some common side effects are described next.

Emotional distress

Depression, anxiety, and sleeping issues are common during a cancer diagnosis. Talk to your care team and those with whom you feel most comfortable about how you're feeling. There are services, people, and medicine that may be able to help relieve your distress.

Loss of appetite

Sometimes side effects from treatment might cause you to feel not hungry or sick to your stomach (nauseated). Healthy eating is important during treatment. It includes eating a balanced diet, eating the right amount of food, and drinking enough fluids. A registered dietitian who is an expert in nutrition and food can help. Speak to your care team if you have trouble eating or maintaining weight.

Pain

Tell your care team about any pain or discomfort.

Survivorship

A person is a cancer survivor from the time of diagnosis until the end of life. After treatment, your health will be monitored for side effects of treatment and the return of cancer. This is part of your survivorship care plan. It's important to keep any follow-up care and imaging test appointments. Seek good routine medical care, including regular doctor visits for preventive care and cancer screening.

A personalized survivorship care plan will contain a summary of possible long-term effects of treatment called late effects and a list of follow-up tests. Find out how your primary care provider will coordinate with specialists for your follow-up care.

Key points

- Treatment for ductal carcinoma in situ (DCIS) is usually a combination of surgery and radiation therapy followed by endocrine therapy.
- Surgery options include a lumpectomy or mastectomy. A lumpectomy is also called breast-conserving surgery or partial mastectomy.
- Chemotherapy isn't used to treat DCIS.
- Supportive care is health care that relieves symptoms caused by treatment and improves quality of life. Supportive care is always given.

Questions to ask

- What is your experience treating breast cancer?
- How many breast cancer surgeries have you done?
- Which treatment do you recommend and why?
- Is there a social worker or someone who can help me decide about treatment?
- Who will coordinate my care?

What's next?

DCIS is treated with surgery. The next chapter provides more detailed information on your surgery options.

4
Surgery options

27 Overview

27 Lumpectomy and partial mastectomy options

28 Mastectomy option

29 Endocrine therapy after lumpectomy

30 Follow-up care

31 Key points

31 Questions to ask

Ductal carcinoma in situ (DCIS) is treated with surgery. The goal of treatment is to reduce the risk of cancer progressing to invasive breast cancer. Together, you and your care team will choose a treatment plan that's best for you.

Overview

Ductal carcinoma in situ (DCIS) is treatable. Surgery is a central part of treatment for DCIS. The goal of treatment is to prevent DCIS from growing outside the duct into surrounding tissue. When cancer spreads into the surrounding tissue, it's called invasive breast cancer. Invasive breast cancer is breast cancer that has spread from the milk ducts or milk glands (lobules) into the breast tissue or to nearby lymph nodes.

Talk to your care team about what to expect from treatment. Your preferences about treatment are important. Make your wishes known. Treatment options are found in **Guide 3**.

Lumpectomy and partial mastectomy options

A lumpectomy is also known as a partial mastectomy or breast-conserving surgery. It may or may not be followed by radiation therapy. Lymph node surgery isn't done with a lumpectomy or partial mastectomy. You may have more than one surgery to ensure all the DCIS is removed.

A lumpectomy followed by radiation therapy is an option for many but not all people with DCIS. It's not an option if you're pregnant, you have some health issues, or the cancer is throughout the breast. The surgical

Guide 3
Treatment options

Option 1	• Lumpectomy with whole breast radiation therapy (WBRT) • Lumpectomy with WBRT and radiation boost
Option 2	• Lumpectomy with accelerated partial breast irradiation (APBI) or partial breast irradiation (PBI)
Option 3	• Lumpectomy only (not an option for most people)
Option 4	• Total mastectomy with sentinel lymph node biopsy • Flat closure or reconstruction after mastectomy

margin must be cancer free. This is called a negative surgical margin. Lumpectomy options are described next.

Lumpectomy with whole breast radiation therapy

Most of your breast will be treated with radiation in whole breast radiation therapy. This type of therapy will help to prevent the return of cancer. If cancer does return, there's an equal chance of developing DCIS again or an invasive type of cancer. Many factors are used to determine risk of recurrence. Ask your care team if your risk of cancer coming back is low or high. If it's high, you may receive extra radiation directed at the surgery area, called a boost.

Lumpectomy with partial breast radiation therapy

When radiation therapy is given only to the lumpectomy site, it's called partial breast irradiation (PBI). This is an option in some cases. You must have a low risk of the cancer returning. Surgical margins must be cancer-free. The size, grade, and other features of the cancer will be considered. Accelerated partial breast irradiation therapy is PBI given over a shorter length of time.

Lumpectomy only

Treatment with a lumpectomy only (no radiation) is an option for a small group of people. You must have a low risk of the cancer coming back. Surgical margins must be cancer free. The size, grade, and other features of the cancer will also be considered.

Mastectomy option

A total mastectomy, or a simple mastectomy, is a surgery that removes the whole breast. Chest muscle isn't removed. You might choose to have a flat closure or breast reconstruction after a mastectomy.

There are many reasons why a total mastectomy might be the best choice for you.

- Cancer may be found at the surgical margin.
- The cancer might be large, too big, or widespread.
- You may be at risk of developing a second cancer.
- You might have a health issue.
- You may want a mastectomy.
- You may not be able to receive radiation to the breast area.

Total mastectomy with sentinel lymph node biopsy

A sentinel lymph node biopsy (SLNB) is often done at the time of mastectomy. Sentinel lymph nodes are the first lymph nodes where cancer cells are likely to spread from the main cancer area. An SLNB finds and removes a few of these nodes. The nodes are then tested for cancer. Once the breast is removed, an SLNB can't be done accurately. This is because a mastectomy permanently changes lymph flow and drainage. Therefore, an SLNB is done at the time of a mastectomy in case there's a small area of invasive cancer in the breast.

Endocrine therapy after lumpectomy

Endocrine therapy is often given after a lumpectomy or partial mastectomy for cancers that are estrogen receptor-positive (ER+). This is meant to reduce the risk of cancer returning. Endocrine therapy includes treatments that stop cancer growth caused by hormones. It's sometimes called hormone therapy, but this isn't the same as hormone replacement therapy.

There's more than one type of endocrine therapy. The type prescribed by your care team is partly based on if you have menstrual periods.

- If you have menstrual periods, tamoxifen is an option.
- If your menstrual periods have stopped for more than 12 months, tamoxifen or an aromatase inhibitor (AI) are both options.

While you're taking endocrine therapy, it's important to have follow-up visits with your care team and seek regular preventive care with a dentist. Let your dentist know if you're taking any of these medicines. Let your care team know about any planned dental procedures.

Medicine might be given to prevent bone loss and fractures during endocrine therapy. Calcium and vitamin D supplements might be recommended, but talk to your care team before taking any supplements.

For endocrine therapy options after a lumpectomy, see **Guide 4**.

Guide 4
Endocrine therapy after lumpectomy

For estrogen receptor-positive (ER+) DCIS, endocrine therapy for 5 years is an option

Endocrine therapy options include:

- For people in premenopause, Tamoxifen
- For people in menopause, Tamoxifen or aromatase inhibitor (AI)

Follow-up care

After treatment, you'll receive follow-up care. It's important to keep any follow-up visits and imaging test appointments. Contact your doctor if you have any new or worsening symptoms.

Medical history and physical exam

An update of your medical history and a physical exam are part of follow-up care. Both should be done every 6 to 12 months for 5 years, then once a year after 5 years of normal results.

Mammogram

A mammogram should be done every 12 months after breast-conserving treatment. The first mammogram might be done as soon as 6 months after completion of radiation or breast-conserving treatment. If you had both breasts removed to reduce your cancer risk, then mammograms aren't needed.

Lowering your risk

There are things you can do to lower your chance of developing breast cancer in the future. Changes in your lifestyle include eating a mostly plant-based diet, exercising, limiting alcohol, and quitting smoking. Your care team can offer information and support on how to lower your risk.

"If you notice something strange or different on your body, get it checked out. Early detection of any cancer generally means a more successful outcome. Stay positive, ask lots of questions, and above all, ask for help when you need it."



Key points

- Ductal carcinoma in situ (DCIS) is treatable. The goal of treatment is to reduce the risk of DCIS progressing to invasive breast cancer.
- Treatment for DCIS starts with surgery.
- Surgery may be a lumpectomy or mastectomy. A lumpectomy followed by radiation therapy is most common.
- Endocrine therapy is often given after a lumpectomy for cancers that are estrogen receptor-positive (ER+).
- Lifestyle changes, endocrine therapy, and surgery help to reduce the risk of future breast cancer.
- Follow-up care includes physical exams and regular mammograms.

Questions to ask

- Which type of surgery do you recommend and why?
- What will be done to manage pain after surgery?
- How long will it take to recover from surgery?
- Who should I call when I have questions or notice changes in my condition?
- Do you recommend endocrine therapy? Why or why not?

What's next?

The next chapter discusses how your breast might look after a lumpectomy or mastectomy. You might consider speaking with a plastic surgeon before surgery.



Let us know what you think!

Please take a moment to complete an online survey about the NCCN Guidelines for Patients.
NCCN.org/patients/response

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The breast after surgery

33 After a lumpectomy or partial mastectomy

33 Flat closure after a mastectomy

34 Breast reconstruction after a mastectomy

36 What to consider

37 Key points

37 Questions to ask

How your breasts look after surgery depends on the type of surgery; the amount of tissue removed; and other factors, such as your body type, age, and size and shape of the area before surgery. You might consider speaking with a plastic surgeon before surgery. This chapter offers more information on volume displacement, flat closure, and breast reconstruction.

The recovery time for each procedure differs. This can affect your ability to return to work or participate in activities. You might consider speaking with a plastic surgeon before surgery to discuss your options and what to expect.

After a lumpectomy or partial mastectomy

With a lumpectomy, most people have a scar and some volume loss. However, if you need a large lumpectomy, your breast may be able to be re-shaped at the time of surgery. This is called volume displacement, oncoplasty, or balancing procedure. The surgeon will shift the remaining breast tissue to fill the space left by the removed area.

If volume displacement is planned, a larger piece of your breast will need to be removed. Despite a larger piece being removed, the natural look of your breast will be kept. However, with large amounts of tissue removed, your breast may be smaller than before. Breast reduction surgery can be performed to make the breasts look similar.

You may not like the results of the volume displacement. In this case, breast revision surgery may help. A second volume displacement may be an option, too. Another option is to get breast implants or a mastectomy with reconstruction.

Flat closure after a mastectomy

In a total mastectomy with a flat closure, the entire breast, including the nipple, extra skin, fat, and other tissue in the breast area, is removed. The remaining skin is tightened and sewn together. No breast mound is created, and no implant is added. The scar will be slightly raised and differ in color from the surrounding skin. A flat closure isn’t completely flat or smooth. The result varies from person to person. Ask to look at pictures from flat closures so you know what to expect.

Breast reconstruction after a mastectomy

Breast reconstruction is surgery to rebuild the shape and recreate the look of the breast after a mastectomy. In many cases, breast reconstruction involves a staged approach. This means it will require more than one procedure.

You may have a choice as to when breast reconstruction is done.

- **Immediate reconstruction** is done within hours after breast removal.
- **Delayed reconstruction** can occur months or years after the cancer surgery.

Reconstruction can also be done in stages, with part of the reconstruction done at the time of the original cancer surgery and finished with another surgery later. A plastic surgeon performs breast reconstruction.

Breasts can be reconstructed with implants and flaps. All methods are generally safe, but as with any surgery, there are risks. Ask your treatment team for a complete list of side effects.

"I've had DCIS 3 times in the last 30 years. While DCIS is thought of as a less problematic cancer, having any cancer repeatedly causes a patient anxiety and a loss of their sense of security about their future. How the treating oncologist supports you and provides tools to lessen recurrence are important to your emotional well-being."



Implants

Breast implants are small bags filled with salt water, silicone gel, or both. They are placed under the breast skin or muscle to look like a new breast following a mastectomy. A balloon-like device, called an expander, may be used first to stretch the tissue. It's placed under your skin or muscle and enlarged every few weeks for 2 to 3 months. When your skin is stretched to the proper size, you'll have surgery to place the final implant.

Implants have a small risk of leaking or causing other issues. You may feel pain from the implant or expander. Scar tissue or tissue death can occur.

Flaps

Breasts can be remade using skin from other parts of your body, known as flaps. These flaps are taken from your abdomen, buttocks, or thigh or from under the shoulder blade. Some flaps are completely removed and then sewn in place. Other flaps stay attached to your body but are slid over and sewn into place.

There are several risks associated with flaps, including death of fat in the flap, which can cause lumps. A hernia may result from muscle weakness. Problems are more likely to occur among people who have diabetes or who smoke.

Implants and flaps

Some breasts are reconstructed with both implants and flaps. This method may give the reconstructed breast more volume to match the other breast. For any reconstruction, you may need surgery on your other breast so both breasts match.

Nipple replacement

Like your breast, a nipple can be remade. To rebuild a nipple, a plastic surgeon can use surrounding tissues, such as from the thigh or the other nipple. Tissue can be darkened with a tattoo to look more like a nipple. Also, a tattoo can be done to look like a nipple without having to take tissue from another part of the body. It’s important to know that while you can remake something to look like a nipple, it won’t have the sensation of your real nipple.

What to consider

Below are some factors to think about when deciding whether to have flat closure or reconstruction after mastectomy.

- **Your desire** – You may have a strong feeling toward flat closure or one form of reconstruction after learning your options. Breast reconstruction should be a shared decision between you and your care team. Make your wishes known.
- **Health issues** – You may have health issues, such as diabetes or a blood disorder, that might affect or delay healing or make longer procedures unsafe.
- **Tobacco use** – Smoking delays wound healing and can cause mastectomy flap death, nipple-areola complex death in a nipple-sparing mastectomy, infection, and failure of implant-based reconstruction. In flap reconstruction, smoking increases the risk of complications. You're encouraged to stop smoking prior to breast reconstruction surgery.
- **Breast size and shape** – There are limits to the available sizes of breast implants. Very large breasts or breasts that lack tone or droop (called ptosis) might be difficult to match. Breast reduction surgery might be an option.
- **Body mass index (BMI)** – People with a higher BMI have an increased risk of infections and complications with breast reconstruction.

If you smoke or vape, seek help to quit

Smoking or vaping nicotine greatly increases your chances of having side effects during and after surgery. Smoking and vaping can limit how well cancer treatment works and prevent wound healing. They also increase your chances of developing other cancers. Cannabis use might also affect the amount of anesthesia used during surgery.

Nicotine is the chemical in tobacco that makes you want to keep smoking and vaping. Nicotine withdrawal is challenging for most people who smoke or vape. The stress of having cancer may make it even harder to quit. If you smoke or vape, ask your care team about counseling and medicines to help you quit.

More information can be found in *NCCN Guidelines for Patients: Quitting Smoking*, available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



For online support, try these websites:

- SmokeFree.gov
- CDC.gov/tobacco

Key points

- With a lumpectomy, most people have a scar and some volume loss.
- After a large lumpectomy, the breast may be able to be re-shaped at the time of surgery. The surgeon will shift the remaining breast tissue to fill the space left by the removed area.
- Flat closure is done after a mastectomy. The skin is tightened and sewn together without the addition of a breast implant.
- Breast reconstruction is surgery to rebuild the shape and recreate the look of the breast.
- Breasts that are fully removed in a mastectomy can be remade with breast implants, flaps, or both.
- Removed nipples can be remade with body tissue and/or tattooing.

Questions to ask

- What will my breast look like after surgery?
- How many breast surgeries or breast reconstructive surgeries have you done? What complications are possible?
- How much pain will I be in, for how long will I be in pain, and what will be done to manage my pain?
- How long does the breast reconstruction process take and what should I expect?
- What options are available if I don't like the look of my breast after surgery?

What's next?

The next chapter provides information about resources and where you can get support.

6
Other resources

39 What else to know

39 What else to do

39 Where to get help

40 Questions to ask

Want to learn more? Here's how you can get additional help.

What else to know

This guide helps you know your options so you can make informed decisions and improve your cancer care. But it's not the only resource that you have.

Ask for as much information and help as you need. Many people are interested in learning more about:

- Finding an oncologist or surgeon who is an expert in breast cancer
- Making treatment decisions
- The details of treatment and possible side effects
- Getting financial help
- Coping with cancer treatment and other health challenges

What else to do

Your health care center can help you with next steps. It often has on-site resources to help meet your needs and find answers to your questions. Health care centers can also inform you of resources in your community.

In addition to help from your providers, the resources listed in the next section provide support for many people like yourself.

Where to get help

Look through the list below and visit the provided websites to learn more about these organizations.

Bone Marrow & Cancer Foundation
bonemarrow.org

Breast Cancer Alliance
breastcanceralliance.org

Breastcancer.org
breastcancer.org

Brem Foundation to Defeat Breast Cancer
bremfoundation.org

CanCare, Inc.
cancare.org

Cancer*Care*
cancercare.org

Cancer Hope Network
cancerhopenetwork.org

Cancer Survivor Care
cancersurvivorcare.org

DiepC Foundation
diepcfoundation.org

FORCE: Facing Our Risk of Cancer Empowered
facingourrisk.org

GPAC Global Patient Advocacy Coalition
gpacunited.org

HIS Breast Cancer Awareness
hisbreastcancer.org

Imerman Angels
imermanangels.org

Inflammatory Breast Cancer Research Foundation
ibcresearch.org

Lobular Breast Cancer Alliance
lobularbreastcancer.org

PAN Foundation
panfoundation.org

Sharsheret
sharsheret.org

Stupid Cancer
stupidcancer.org

Triage Cancer
triagecancer.org

Unite for HER
uniteforher.org

Young Survival Coalition (YSC)
youngsurvival.org

Questions to ask

- Who can I talk to about help with housing, food, and other basic needs?
- What help is available for transportation, childcare, and home care?
- What other services are available to me and my caregivers?
- How can I connect with others and build a support system?
- Who can I talk to if I don't feel safe at home, at work, or in my neighborhood?

"Be your own advocate. Talk to someone who has gone through the same thing as you. Ask a lot of questions, even the ones you are afraid to ask. You have to protect yourself and ensure you make the best decisions for you, and get the best care for your particular situation."





Words to know

anti-estrogen
A drug that stops estrogen from attaching to cells.

areola
A darker, round area of skin on the breast around the nipple.

aromatase inhibitor (AI)
A drug that lowers the level of estrogen in the body.

bilateral oophorectomy
An operation that removes both ovaries.

biopsy
A procedure that removes fluid or tissue samples to be tested for a disease.

breast implant
A small bag filled with salt water, gel, or both used to remake breasts.

breast reconstruction
An operation that creates new breasts.

clinical breast exam
Touching of a breast by a health expert to feel for diseases.

clinical trial
A type of research that assesses health tests or treatments.

contrast
A substance put into your body to make clearer pictures during imaging tests.

core needle biopsy (CNB)
A procedure that removes tissue samples with a hollow needle. Also called core biopsy.

diagnostic mammogram
Pictures made from x-rays that are focused on specific areas inside of the breasts.

ductal carcinoma in situ (DCIS)
Noninvasive cancer cells that line the ducts of the breasts.

duct
A tube-shaped structure through which milk travels to the nipple.

endocrine therapy
A cancer treatment that stops the making or action of estrogen. Also called hormone therapy.

estrogen
A hormone that plays a role in breast development.

estrogen receptor (ER)
A protein inside cells that binds to estrogen.

estrogen receptor-negative (ER-)
A type of breast cancer that doesn't use estrogen to grow.

estrogen receptor-positive (ER+)
A type of breast cancer that uses estrogen to grow.

fertility specialist
An expert who helps people have babies.

fine-needle aspiration (FNA)
A procedure that removes tissue samples with a very thin needle.

flat closure
Procedure done after a mastectomy in which the skin is tightened and sewn together without the addition of a breast implant.

genetic counseling
Expert guidance on the chance for a disease passed down in families.

hereditary breast cancer
Breast cancer likely caused by abnormal genes passed down from biological parent to child.

histology
The structure of cells, tissue, and organs as viewed under a microscope.

hormone
A chemical in the body that triggers a response from cells or organs.

immunohistochemistry (IHC)
A lab test of cancer cells to find specific cell traits involved in abnormal cell growth.

invasive breast cancer
The growth of breast cancer into the breast's supporting tissue.

lobule
A gland in the breast that makes breast milk.

luteinizing hormone-releasing hormone (LHRH)
A hormone in the brain that helps control the making of estrogen by the ovaries.

lymph
A clear fluid containing white blood cells.

lymph node
A small, bean-shaped disease-fighting structure.

magnetic resonance imaging (MRI)
A test that uses radio waves and powerful magnets to make pictures of the inside of the body.

mammogram
A picture of the inside of the breast made using x-rays.

mastectomy
An operation that removes the whole breast.

menopause
12 months after the last menstrual period.

nipple-areola complex (NAC)
The ring of darker breast skin is called the areola. The raised tip within the areola is called the nipple.

partial breast irradiation (PBI)
Radiation therapy used to treat only an area of the breast.

pathologist
A doctor who's an expert in testing cells and tissue to find disease.

premenopause
The state of having menstrual periods.

radiation therapy (RT)
A treatment that uses high-energy rays. Also called radiotherapy.

selective estrogen receptor degrader (SERD)
A drug that blocks and destroys estrogen receptors.

selective estrogen receptor modulator (SERM)
A drug that blocks the effect of estrogen inside cells.

sentinel lymph node (SLN)
The first lymph node to which cancer cells spread after leaving a tumor or area of cancer.

sentinel lymph node biopsy (SLNB)
An operation to remove the disease-fighting structures (lymph nodes) to which cancer first spreads. Also called sentinel lymph node dissection.

side effect
An unhealthy or unpleasant physical or emotional response to treatment.

supportive care
Health care that includes symptom relief but not cancer treatment. Also called palliative care or best supportive care.

total mastectomy
An operation that removes the entire breast with a flat closure. Also called simple mastectomy.

whole breast radiation therapy (WBRT)
Radiation therapy used to treat the entire breast.



We want your feedback!

Our goal is to provide helpful and easy-to-understand information on cancer. Take our survey to let us know what we got right and what we could do better.
NCCN.org/patients/feedback

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This patient guide is based on the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Breast Cancer, Version 1.2026. It was adapted, reviewed, and published with help from the following people:

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