

YOUR VALUES
YOUR PREFERENCES
YOUR CHOICE

Allina Health 

Breast Cancer Surgery Options

Lumpectomy With Radiation Therapy or Mastectomy



Members of Your Health Care Team

■ **Breast surgeon**

A breast surgeon will talk with you about surgical treatment options and help identify the best treatment plan for you.

■ **Plastic surgeon**

A plastic surgeon will meet with you if you choose to have breast reconstruction to rebuild your breast.

■ **Medical oncologist**

A medical oncologist will meet with you if your treatment plan includes taking medicine. This medicine may include chemotherapy, endocrine therapy or both (see page 14).

■ **Advanced practice provider**

An advanced practice provider can treat illnesses and diseases such as breast cancer. An advanced practice provider and doctor work together as a team. Advanced practice providers include: clinical nurse specialists, nurse practitioners or physician assistants.

You may work with an advanced practice provider during your hospital stay or at a follow-up appointment.

■ **Radiation oncologist**

A radiation oncologist will meet with you if your treatment plan includes radiation therapy (see page 15).

■ **Nurse navigator**

A nurse navigator is a registered nurse who will support, educate and guide you during treatment.

■ **Cancer rehabilitation care team**

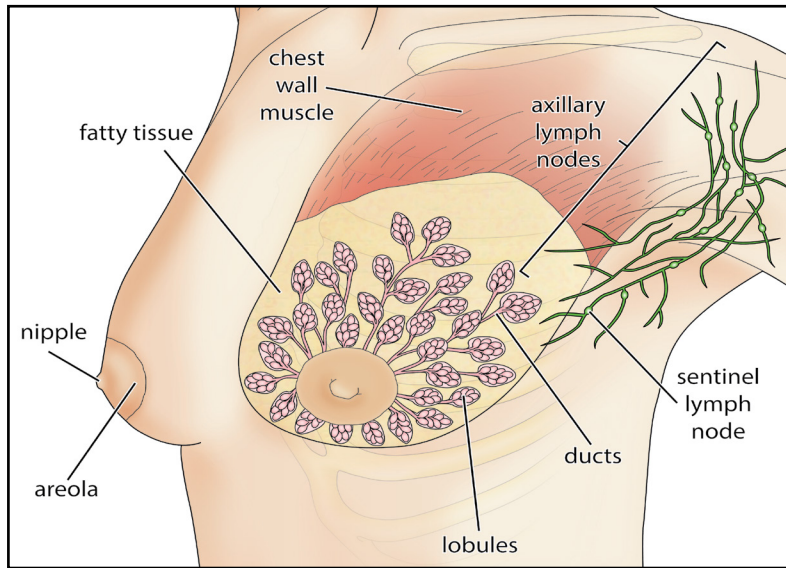
Cancer rehabilitation care team members may help you regain or improve the abilities you feel have changed as a result of your cancer or cancer treatment. They can help you maintain or regain your independence and enjoy your life to the fullest.

The care team may include: physical medicine and rehabilitation providers, physical therapists, occupational therapists and lymphedema therapists.

■ **Registered nurse**

A registered nurse will provide and coordinate your personal care. The nurse will educate you about your cancer and treatment, and provide support to you and your family.

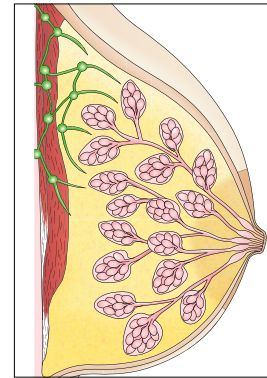
Understanding Breast Cancer



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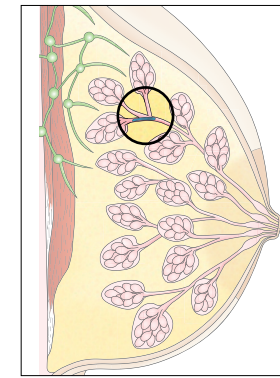
The sentinel lymph node(s) are the first lymph nodes to drain the breast.

Cancer is a disease in which cells in the body grow out of control. When cancer starts in the breast, it is called breast cancer. Breast cancer can be found in either the ducts or the lobules. Sometimes it is in both areas. Breast cancer is the most common cancer among women.



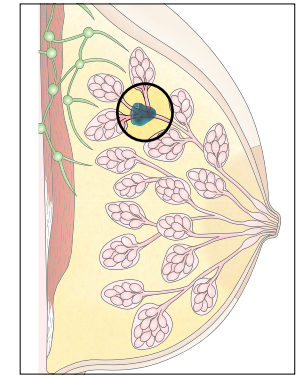
Normal breast tissue

- The cells are healthy.



Noninvasive breast cancer

- The cancer cells are only found in the ducts.
- This is known as ductal carcinoma in situ (DCIS).



Invasive breast cancer

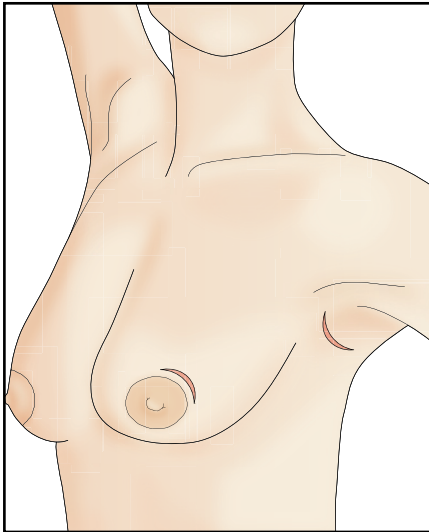
- The cancer cells in the ducts have grown into nearby tissue.

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Breast Cancer Surgical Treatment Options

There are two types of surgery to treat breast cancer: lumpectomy and mastectomy. Your surgeon will review both surgical options with you.

Lumpectomy (Breast-conserving Surgery)



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After a lumpectomy, you will have one scar on your breast that is close to where the cancer was. You may have a second scar in your underarm area if your surgeon needs to remove some of your lymph nodes.

Lumpectomy is a surgery to remove part of your breast. It removes the cancer and a rim of healthy breast tissue around the cancer. This healthy tissue is called the margin.

Most women need radiation therapy after a lumpectomy. Radiation therapy helps reduce the chance of breast cancer coming back in the same breast.

You will have radiation therapy every weekday Monday through Friday. Radiation therapy lasts between 4 and 7 weeks. Your radiation oncologist will talk with you about the treatment plan.

Some women over the age of 70 with small cancers may be able to do lumpectomy without radiation therapy. Your team will decide if this is an option for you.

Are you leaning toward one of the surgery options?

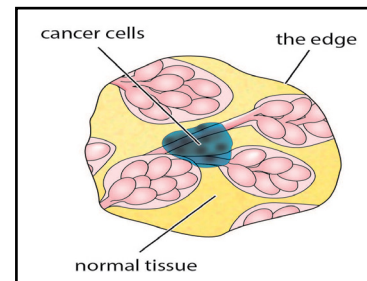
Margins

During surgery, your surgeon will remove an area of normal cells around the cancer cells. This is to make sure all of the cancer cells are removed.

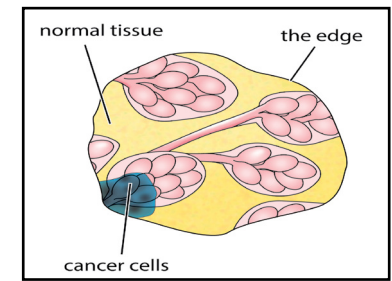
The rim of normal cells is known as a margin.

- If there are no cancer cells in the margin, it is known as a negative, or clear, margin.
- If there are cancer cells in the margin it is known as a positive, or not clear, margin.

Your margins will be checked if you choose either a lumpectomy or a mastectomy.



Negative/clear margin:
There are no cancer cells on the outside edge of the tissue that was removed.



Positive/not clear margin:
There are cancer cells at the outside edge of the tissue that was removed.

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Breast Cancer Surgical Treatment Options (continued)

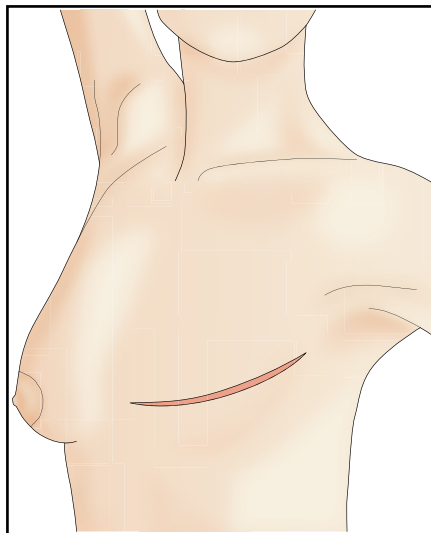
Mastectomy

This is a surgery to remove your entire breast. This may include your nipple and areola.

You may choose to have breast reconstruction to rebuild your breast. Breast reconstruction involves a series of surgeries that may take 1 to 2 years to complete. The timing will depend on your other treatment needs (chemotherapy, radiation therapy) after the mastectomy.

A plastic surgeon can meet with you if you want to learn more about the different options.

To learn more about breast reconstruction, see page 6.



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After a mastectomy and no reconstruction: You will have a scar on your chest where your breast was. You will lose your breast's natural feeling and look. If lymph nodes need to be removed with mastectomy, this is usually done through the same incision.

When a Mastectomy May Be Right

Your surgeon may recommend you have a mastectomy if:

- a lumpectomy would remove a large portion of your breast. This depends on the size of your cancer and breast, and the location of your cancer.
- there are 2 or more areas of cancer in your breast
- you have a genetic mutation associated with a higher risk of cancer. You have inherited a genetic change which may increase your risk of developing a second breast cancer in the future.
- you have a physical limitation or health problem that would make radiation therapy unsafe for you
- you have had radiation before to your chest wall.

Together, you and your surgeon will decide which surgery is right based on the benefits, risks and your values and preferences.

Comparing Your Options

	Lumpectomy With Radiation Therapy	Mastectomy
Surgical options — <i>What is removed during surgery?</i>	<ul style="list-style-type: none"> Your surgeon will remove part of your breast. This will remove the cancer and a rim of healthy tissue (margin) around the cancer. 	<ul style="list-style-type: none"> Your surgeon will remove your entire breast. You may be able to keep your nipple(s). This is called a nipple sparing mastectomy. Your surgeon and plastic surgeon will determine if this is an option for you.
— What is most important to you?		
Breast appearance after surgery — <i>What will my breast look like after I have healed?</i>	<ul style="list-style-type: none"> You will keep more of your breast's natural look. You will have a scar on your breast. If your surgeon removed some of your lymph nodes, you will also have a scar in your underarm area. 	<ul style="list-style-type: none"> You will lose your breast's natural look. If you choose not to have breast reconstruction, you will have a scar on your chest where your breast was. If you choose to have breast reconstruction, your plastic surgeon can create a new breast and nipple for you. You may need several procedures to complete reconstruction.
— What is most important to you?		
Breast reconstruction — <i>Will I need breast reconstruction?</i>	<ul style="list-style-type: none"> Breast reconstruction is usually not needed. Reduction or another surgery of the breast may be an option if your breasts looks different after radiation. 	<ul style="list-style-type: none"> You may choose to have breast reconstruction to rebuild your breast. Breast reconstruction involves a series of surgeries that may take 1 to 2 years to complete. The timing will depend on your other treatment needs (chemotherapy, radiation therapy) after the mastectomy. Each surgery has risks and needs recovery time.
— What is most important to you?		

Comparing Your Options (continued)

	Lumpectomy With Radiation Therapy	Mastectomy
Breast sensation (feeling) after surgery — <i>What will my breast feel like after I have healed?</i>	<ul style="list-style-type: none"> ■ You will keep more of your breast’s natural feeling. ■ You may have changes in sensation near your incision(s). 	<ul style="list-style-type: none"> ■ You will have changes in sensation where your breast was. Your skin will likely feel numb. ■ If you choose to have breast reconstruction, your breast and nipple will not have any sexual stimulation.
— What is most important to you?		
Hospital stay — <i>How long will I be in the hospital?</i>	<ul style="list-style-type: none"> ■ You will usually go home the same day of surgery. 	<ul style="list-style-type: none"> ■ You will be in the hospital for 1 to 2 nights.
— What is most important to you?		
Drains — <i>Will I have surgical drains?</i>	<ul style="list-style-type: none"> ■ In general, no drains are needed. 	<ul style="list-style-type: none"> ■ You will have 1 or more drains in place to help reduce fluid from collecting under your skin. You will have the drain in place for 1 to 2 weeks or longer.
— What is most important to you?		
Recovery time — <i>How long will I need to recover?</i> — <i>When can I return to my regular activities?</i>	<ul style="list-style-type: none"> ■ You will need 3 to 7 days of recovery before you return to your regular activities. 	<ul style="list-style-type: none"> ■ You will need 3 to 6 weeks of recovery before you return to your regular activities. ■ If you also have breast reconstruction, recovery times depend on your reconstruction options. Recovery times vary from 3 to 8 weeks.
— What is most important to you?		

Comparing Your Options (continued)

	Lumpectomy With Radiation Therapy	Mastectomy
<p>Surgical problems (complications)</p> <ul style="list-style-type: none"> — <i>Are there surgical risks?</i> — <i>Why is the risk different for each surgery?</i> — <i>What are the general risks?</i> 	<ul style="list-style-type: none"> ■ This surgery has less risk of complications than a mastectomy. This is because the surgery is shorter, uses less anesthesia, removes less breast tissue and has a smaller cut (incision). ■ General risks include infection, anesthesia problems and bleeding. ■ Less common long-term risks include loss of flexibility in your arm, shoulder or both. 	<ul style="list-style-type: none"> ■ This surgery has greater risk of complications than a lumpectomy. This is because the surgery is longer, uses more anesthesia, removes more breast tissue and has a larger cut (incision). ■ General risks include infection, anesthesia problems and bleeding. ■ Less common long-term risks include loss of flexibility in your arm, shoulder or both. ■ If you also have breast reconstruction, each surgery has the risk of complications described above.
<ul style="list-style-type: none"> — What is most important to you? 		
<p>Additional breast cancer surgery</p> <ul style="list-style-type: none"> — <i>Will I need an additional surgery to remove breast tissue?</i> 	<ul style="list-style-type: none"> ■ A re-excision (second surgery to remove a small amount of breast tissue) may be needed if you have a positive or not clear margin (disease extending to where your surgeon has cut) or if the margin is too small for the type of cancer you have. ■ This type of surgery usually happens within a few weeks of your first surgery. 	<ul style="list-style-type: none"> ■ A re-excision is usually is not needed after a mastectomy. ■ If you have breast reconstruction, you will likely have additional surgeries. ■ Timing for these types of surgeries will vary.
<ul style="list-style-type: none"> — What is most important to you? 		

Comparing Your Options (continued)

	Lumpectomy With Radiation Therapy	Mastectomy
Radiation therapy — <i>Will I need radiation therapy?</i>	<ul style="list-style-type: none"> ■ Radiation therapy will likely be recommended. ■ Radiation therapy typically starts 4 to 6 weeks after surgery. ■ You will need to go to radiation therapy every weekday Monday through Friday for 4 to 7 weeks. Each visit lasts 15 to 20 minutes. ■ You may have side effects from radiation therapy. Common side effects may include: <ul style="list-style-type: none"> — short-term fatigue (tiredness) — short-term redness or discomfort in the treated area that is similar to a sunburn — long-term changes in your breast's skin color and texture — increased risk for lymphedema — other more rare side effects may be possible. Your radiation oncologist will review these with you in more detail. 	<ul style="list-style-type: none"> ■ Radiation is much less likely to be recommended, but there are times when it may be needed.
— What is most important to you?		
Chemotherapy — <i>Will I need chemotherapy?</i>	<ul style="list-style-type: none"> ■ You may need chemotherapy before or after surgery. This is not affected by which surgery you choose. 	
— What is most important to you?		

Comparing Your Options (continued)

	Lumpectomy With Radiation Therapy	Mastectomy
Endocrine or antiestrogen therapy (hormone therapy) — <i>Will I need hormone therapy?</i>	<ul style="list-style-type: none"> Most patients will need endocrine therapy before or after surgery. 	
— What is most important to you?		
Breast cancer screening — <i>Will I need regular breast exams and mammograms after surgery?</i>	<ul style="list-style-type: none"> Your doctor(s) will do regular breast exams (feeling for lumps) to check for signs of cancer coming back. You will need regular mammograms for both your breasts. 	<ul style="list-style-type: none"> If you have only one breast removed (single mastectomy), you will need regular breast exams and mammograms on your remaining breast. If you have both breasts removed (double mastectomy), you will not need regular mammograms.
— What is most important to you?		
Future breast cancer and local recurrence* — <i>Can cancer return to the same area after surgery?</i> *Your risk may vary depending on your situation and cancer.	<ul style="list-style-type: none"> The chance of a future breast cancer is slightly higher than mastectomy because some breast tissue remains. <p>Talk with your doctor about your specific risk.</p>	<ul style="list-style-type: none"> The chance of a future breast cancer is slightly lower because the entire breast has been removed, but the risk is never zero. <p>Talk with your doctor about your specific risk.</p>
— What is most important to you?		
Overall survival — <i>How do these surgeries affect my chance of survival?</i>	<ul style="list-style-type: none"> These surgery options have equal survival outcomes. Having a mastectomy does not help you live longer than a lumpectomy. 	

My Understanding

Questions	Answers
<p>Women who have a mastectomy live longer than women who get a lumpectomy with radiation therapy.</p> <p><input type="checkbox"/> True <input type="checkbox"/> False</p>	<p>False. The length of time you will live is the same for both options.</p>
<p>Women who have a lumpectomy with radiation therapy are slightly more likely to have a future breast cancer compared to women who have a mastectomy.</p> <p><input type="checkbox"/> True <input type="checkbox"/> False</p>	<p>True. A lumpectomy only removes part of your breast. Because you keep more of your breast tissue during a lumpectomy, there is a slightly higher chance of a future breast cancer.</p>
<p>Having a mastectomy will completely eliminate your risk of breast cancer in the future.</p> <p><input type="checkbox"/> True <input type="checkbox"/> False</p>	<p>False. A mastectomy slightly reduces your risk for future breast cancer. Your risk may vary depending on your situation and cancer. Talk with your doctor about your specific situation.</p>
<p>Which surgical treatment has more risk of problems (complications) and a longer recovery?</p> <p><input type="checkbox"/> Lumpectomy <input type="checkbox"/> Mastectomy</p>	<p>Mastectomy. A mastectomy has more risk of complications and a longer recovery. A lumpectomy has less risk of complications and a shorter recovery.</p>
<p>Which surgical option usually requires radiation therapy after surgery?</p> <p><input type="checkbox"/> Lumpectomy <input type="checkbox"/> Mastectomy</p>	<p>Lumpectomy. Women who get a lumpectomy usually need radiation therapy starting about 1 month after surgery. Women who get a mastectomy usually do not need radiation therapy.</p>

My Preferences

Questions	My Thoughts
Do you understand the surgical options explained in this booklet?	
As you think about the possible risks, what are your fears or concerns?	
As you think about both options, what are your hopes or goals?	
Are you clear about the benefits and risks of each option? What matters most to you?	
Which of these options, at this time, do you feel fits best with your treatment goals?	
Is there anything that may get in the way of you doing this?	
Do you feel you have enough support and information?	

My Preference at This Time

lumpectomy mastectomy undecided

Glossary

■ Axilla

This is the underarm or armpit area. This area is where blood vessels and nerves enter and leave the upper arm.

■ Axillary node dissection

This is a procedure to remove all of the lymph nodes in your underarm. It may happen with either a mastectomy or lumpectomy.

■ Benign

This means that the area tested or biopsied does not have cancer.

■ Biopsy

This is a procedure to remove a sample of tissue.

■ Cancer

This is a group of diseases in which abnormal cells divide without control and can invade nearby tissues.

■ Chemotherapy

Chemotherapy uses medicine to destroy cancer cells. These medicines are usually given through an IV (intravenous) line.

■ Hormone therapy (endocrine therapy)

Hormone therapy uses medicine to treat breast cancer that is estrogen receptor positive. These medicines are pills that are taken by mouth.

■ Invasive breast cancer

The cancer cells in the ducts or lobules have grown into nearby tissue.

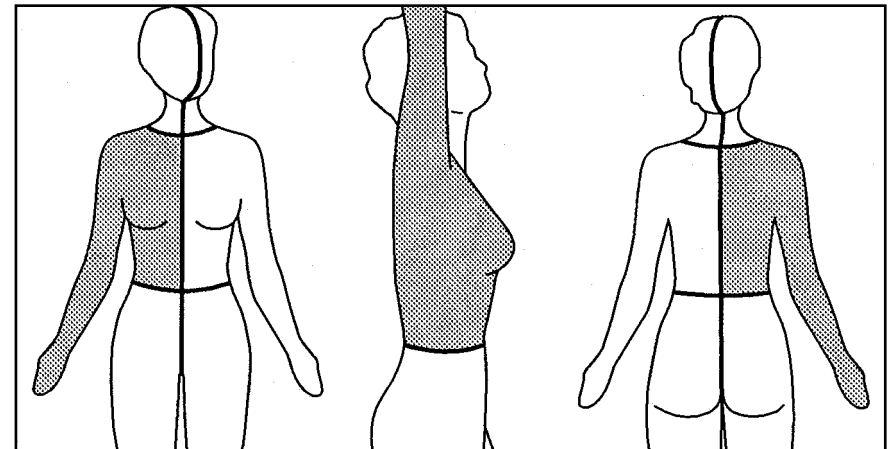
■ Local recurrence

Local recurrence happens when cancer returns near the location of the original cancer.

■ Lymphedema

Lymphedema is the swelling of body tissue that can be caused by tissue damage or lymph node removal. The main cause is cancer or cancer treatment, such as surgery, radiation or lymph node removal.

This swelling most often occurs in your arm or breast. Only the side of your body that had damage or nodes removed would be affected. Lymphedema can develop right away after surgery or many years later.



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Swelling can occur in the arm or chest.

■ Lymph nodes

They act like filters to remove dead cells and bacteria (germs) from the body and keep them out of the bloodstream. Breast cancer can spread to the axillary (underarm) lymph nodes.

Glossary (continued)

- **Malignant**
This means the area tested or biopsied has cancer cells.
- **Margin**
Margin is a rim of healthy breast tissue around the cancer that is removed during surgery.
- **Neoadjuvant chemotherapy**
This is a type of chemotherapy that is given before surgery. It is sometimes recommended with invasive cancer in an attempt to shrink tumors before surgery.
- **Re-excision**
Re-excision is a second surgery to remove a small amount of breast tissue. This occurs if the first surgery did not remove a large enough margin.
- **Radiation therapy**
Radiation therapy uses high-energy X-rays to destroy cancer cells.
- **Sentinel node**
The sentinel node is the first lymph node that drains the area of your body that has the cancer. If cancer cells have started to break off from the original cancer, the sentinel node would filter them.
- **Sentinel node biopsy**
A sentinel lymph node biopsy is the removal of the sentinel lymph node to see if there are cancer cells in it. The sentinel lymph node(s) are the first lymph nodes to drain the breast.
- **Tumor**
This is an abnormal mass of tissue that happens when cells divide more than they should or do not die when they should.

Resources

- **Allina Health**
allinahealth.org
- **American Cancer Society**
cancer.org
- *“Dr. Susan Love’s Breast Book”* by Susan Love, MD
- **National Cancer Institute**
cancer.gov
- **National Comprehensive Cancer Network**
nccn.org

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