Breast Cancer Surgery Recovery Guide

A collection of resources for recovering after a breast surgery.



University of Pittsburgh Doctor of Occupational Therapy Capstone Project: Bridging Information Gaps



Every cancer journey is unique. We are here for you.

Introduction

This guide was made for people who have had or are planning to have breast cancer-related surgery.

An important part of recovery is taking care of yourself. Your progress and independence will depend on the type of surgery you have, your overall health, and whether you are having other cancer treatments.

This guide is not meant to be read all at once.
Please consider what applies to you and refer to
those sections as needed.

Many of the pages in this guide have links attached, which lead to other pages that add to information in this guide. Some pages contain optional equipment and tools—these are recommendations and should be purchased and used at your discretion.

Please Note

Most breast cancer research refers to women experiencing breast cancer and breast surgery. However, not everyone diagnosed with breast cancer identifies as a woman. <u>ANYONE</u> can be a breast cancer survivor, regardless of sex.

This guide recognizes that anyone can be diagnosed with breast cancer, and everyone experiences breast cancer differently.

Every cancer journey is different. Always consult with your care team to determine what is right for YOU.

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Types of Surgery

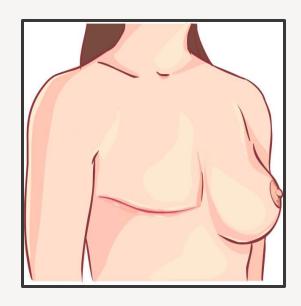
Mastectomy Lumpectomy Axillary Surgery Reconstruction

Mastectomy

A mastectomy is the removal of the entire breast which includes the nipple, areola, and all underlying breast tissue. No muscle is removed. This results in a smooth, "flat chest" with a horizontal incision across the chest.

Possible Side Effects

- o Pain or tenderness near the incision
- o Temporary swelling of the breast
- Limited movement in the arm and shoulder
- Build-up of blood or clear fluid at the wound site
- Post-Mastectomy Pain Syndrome (PMPS)



Short-Term Recovery

- Pratt (JP) drain.
 - The drain removes fluid from the surgical site, allowing the wound to heal properly.
 - o This can be in for a few weeks.
- Recovery, healing time, and severity depends if reconstruction surgery occurred during the mastectomy procedure.

Types of Mastectomies

- o Simple Mastectomy
- Double Mastectomy
- Modified Radical Mastectomy

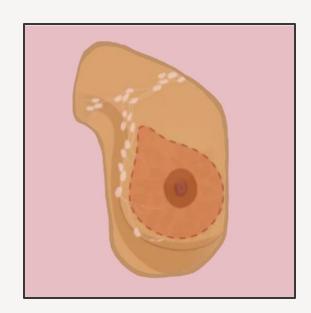
Mastectomy: Types



Simple/Total Mastectomy

A simple or total mastectomy surgery removes the whole breast (tissue and skin) that has cancer. One or more lymph nodes may be removed under the arm. NO muscle is removed.

- o If reconstruction surgery is not performed, the remaining breast skin is used to create a flat closure.
- A double mastectomy is the total removal of both breasts.

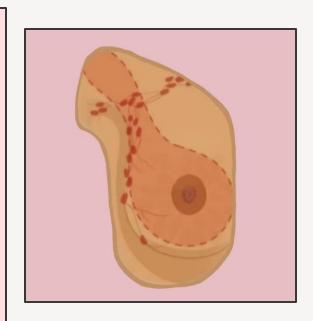




Modified Radical Mastectomy

A modified radical mastectomy removes the entire breast, most lymph nodes under your arm, and the lining over the muscles in your chest. More simply, it combines a simple mastectomy and axillary lymph node dissection procedure.

 This is the most extensive type of mastectomy. Until the 1970s, it was the standard treatment for breast cancer. It is now used depending upon stage of diagnosis



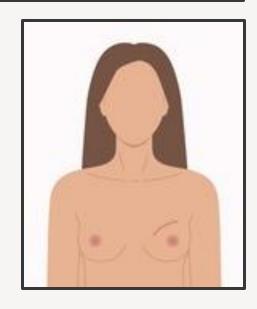
(BreastCancer.org, 2023) (Liu, 2022) (UPMC Hillman Cancer Center, n.d.)

Lumpectomy (Partial/Segmental Mastectomy)

A lumpectomy is the surgical removal of a known breast cancer tumor. The cancerous tissue is removed along with a clean margin of surrounding tissue. This is a breast-conserving surgery, as the goal is to leave as much normal breast tissue as possible.

Possible Side Effects

- o Numbness—this is usually temporary
- Hard scar tissue or a dimple where the tumor was removed
- Temporary swelling of the breast
- Pain or tenderness or a tugging sensation in the breast
- Limited range of motion, or movement of the affected arm



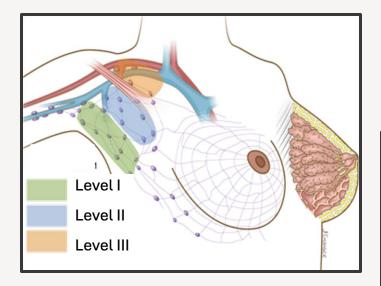
Localization of Early- Stage Breast Cancers

Some people present with a palpable lump, or a lump you can feel. The lump allows the surgeon to know exactly where to make the incision to remove the area of concern. Mammograms and other breast imaging can detect suspicious findings before feeling a lump. There are two ways to locate these early stage breast cancers prior to a lumpectomy:

- O1 Radioactive Seed Localization
- O2 Wire Placement

Axillary Surgery: Overview

It is possible for breast cancer to spread to nearby lymph nodes under the arm. It is important to identify if the lymph nodes are involved with cancer to further prevent the spread. There are three levels of axillary lymph nodes that may be affected.



Possible Side Effects

- o Lymphedema
- o Infection
- o Bleeding
- Build-up of fluid under the arm
- o Numbness under the arm
- o Lymphatic cording
- A burning or tingling sensation

Levels of Lymph Nodes in the Underarm

Cancer cells usually spread to the Level I lymph nodes first, to Level II next, and then to Level III.

- Level I: located in the lower part of the underarm
- Level II: located in the middle part of the underarm
- Level III: located in the upper part of the underarm, near the breastbone

Types of Axillary Surgeries

- O1 Sentinel Lymph Node Biopsy
- O2 Axillary Lymph Node Dissection

Axillary Surgery: Types

Talk with your healthcare team to determine which axillary surgery is right for you. It often depends on your stage of breast cancer diagnosis.

01

Sentinel Lymph Node Biopsy

A minimally-invasive procedure to test if the cancer has spread beyond the original tumor and into the lymph nodes. This procedure is specifically for removing and testing Level I lymph nodes.

Advantages: Sentinel node biopsies have a lower risk of complications, minimal scarring, and faster recovery times than ALND. It is most suitable for early stage breast cancer patients.

Disadvantages: However, it may not be the best procedure if large tumors are present, as it may not be able to fully test the lymph nodes.

02

Axillary Lymph Node Dissection (ALND)

A more extensive surgical procedure to remove more lymph nodes in the underarm area to determine how much cancer has spread.

 This surgery requires the placement of a JP drain to remove fluid from the site of your surgery.

Advantages: ALND allows for a more thorough evaluation of lymph node involvement. It helps determine the cancer stage and the appropriate treatment plan.

Disadvantages: This procedure requires a longer recovery time and often has higher risks of side effects, including lymphedema.

Reconstruction Surgery

People may choose breast reconstruction surgery to rebuild the shape and look of their breast. The goal of all reconstruction surgeries is to make the reconstructed breast look natural and symmetrical to the original breast.

Breast reconstruction surgery can occur at the same time as your mastectomy, or it can be delayed. The decision for reconstruction to be at the same time or delayed is determined by multiple factors. These factors include cancer stage, medical condition, additional therapies (radiation therapy), etc.. Ask your care team what is best for you.

Questions to Ask your Care Team about Reconstruction

- Can I have breast reconstruction?
- Will reconstruction interfere with chemotherapy and/or radiation?
- What type of reconstruction do you think would be best for me?
- What are the risks and benefits of each option?
- o Will my insurance cover this?
- How much time do I need to wait to have the surgery?
- What kinds of changes in the breast can I expect over time?

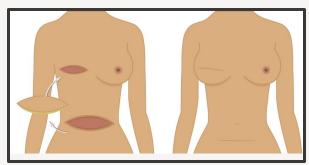


Image of a tissue (flap) reconstruction

Types of Breast Reconstruction Procedures

- **01** Implant Reconstruction
- O2 Tissue (Flap) Reconstruction
- O3 Tissue Expander/ Implant reconstruction

Types of Touch-Up Procedures

- o Fat Grafting
- Scar Revision
- Nipple and Areola Reconstructions

Reconstruction Surgery: Types

01

Implant Reconstruction

A procedure to reconstruct the breast(s) using silicone implants.

- o In some cases, implant reconstruction requires a tissue expander to be placed. The tissue expander is comparable to a flat water balloon which is gradually filled until the desired size is reached. The expander is then removed and replaced with an implant.
- Sometimes, it's possible to have direct-to-implant breast reconstruction at the same time as mastectomy, without the use of an expander.

Advantages: You can avoid additional incisions and scars on other parts of your body. Surgery is less invasive, with a quicker recovery time than a flap reconstruction.

Disadvantages: It is not an option until radiation is completed. You need to have enough healthy tissue and skin to support an implant. Implants can rupture, and cause infection or pain.

02

Tissue (Flap) Reconstruction

A procedure to rebuild the shape of the breast using skin and soft tissue flaps from your own body.

o The most common natural flap procedures use tissue from the abdomen or back. Flaps can also be taken from the buttocks or thighs.

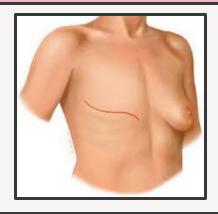
Advantages: Tissue flaps look, feel, and act more natural than implants. Implants may need to be replaced, but this is not an issue with tissue flaps. Tissue flaps are often used by themselves to reconstruct the breast, with no implant needed for volume.

Disadvantages: Tissue flaps require more surgery and a longer recovery. The operation leaves two surgical sites and scars (one where the tissue was taken from and one on the breast). Some people have donor site problems, including abdominal bulging, contour distortions, and muscle damage.

Reconstruction Surgery: Aesthetic Flat Closure

Aesthetic Flat Closure, also known as "Going Flat", can be performed if you do not want reconstruction or are not a candidate for reconstruction.

During an aesthetic flat closure, extra skin, fat, and other tissue in the breast area are removed. The remaining tissue is then tightened and smoothed out so that the chest wall appears flat. Speak to your breast surgeon if "going flat" is an option you are interested in.



Resources to learn more about "Going Flat"



Not Putting on a Shirt

An organization advocating for optimal surgical outcomes for women who choose to go flat after mastectomy.

2

Flat and Happy

A comprehensive guide for people who are seeking options other than reconstruction surgery.

3

Flat Closure Now

Flat Closure Now provides resources and links to support groups, blogs & books, pages & projects, podcasts & videos, non-profits & foundations, businesses, and medical literature regarding aesthetic flat closure.



Managing Surgical Drains

The JP Drain
Caring for Your JP Drain at Home
JP Drain Log & Safety
Drains & Getting Dressed

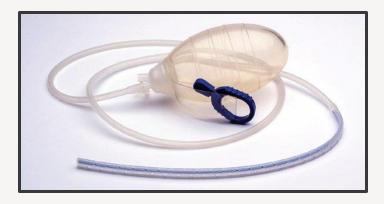
The JP Drain

After surgery, you may have a Jackson Pratt drain which is often called a "JP Drain." The JP Drain is a hollow tube (also known as a catheter) that begins inside the surgical site. The end of the tube will look like an egg-shaped bulb. When the bulb becomes filled with fluid, it needs to be emptied.

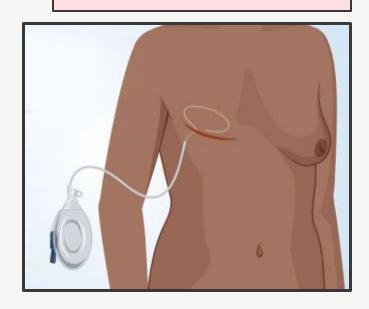
Surgeries that will result in having a JP drain:

Mastectomy with or without reconstruction

Axillary Node Dissection



You will likely have the drain for a few weeks after your surgery



Wearing your drain throughout the day



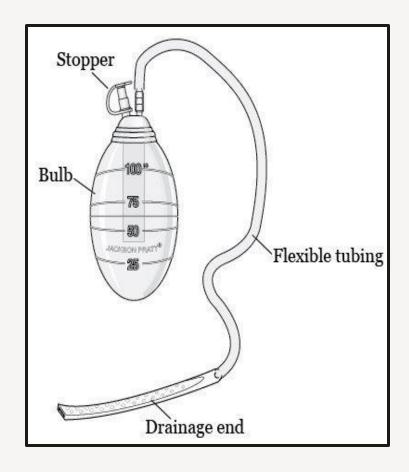
Drain Belt: A drain belt can be worn under clothing to minimize risk of pulling the tube of the drain.

Links to Drain Belts:

- Post surgical drain belt moisture wicking
- Post surgical drain belt mesh & solid fabric

Caring for Your JP Drain at Home

Refer to your healthcare team's instructions on milking (moving clots through the tubing) and emptying the JP drain.



Drain Station

Keep drain supplies in a convenient place, preferably near a mirror to see what you are doing.

The JP drain daily log will help you keep track of fluid amounts and how often you empty the bulb.

Supplies to keep at your home "drain station"

Daily Log

Measuring Cup

Pen/Pencil

Alcohol Wipes

Drain Belt

Hand Sanitizer

JP Drain Log & Safety

JP Drain Daily Log

Date	Drain 1: Time Emptied	Drain 1: Total Fluid in Bulb	Drain 2: Time Emptied	Drain 2: Total Fluid in Bulb

Contact your surgeon's office IMMEDIATELY with any signs and symptoms of:

Sudden and/or excessive This could represent a swelling or bruising of the seroma or hematoma (fluid or blood collection). wound This could represent an Redness, warmth, fever, chills, abnormal drainage infection. The bulb is not holding suction AND/OR fluid is not coming out into the drain This could mean the drain is displaced or malfunctioning A stitch comes out or the white

part of the drain (drainage end)

comes out of the skin

Drains & Getting Dressed

Before you leave the hospital, your doctor will typically provide you with a support bra or surgical top.

If you have drains placed after surgery, activities such as getting dressed can be difficult. However, there are many adaptive clothing options to help manage your drains and keep them securely attached to you throughout the day. (See "Managing Drains" section for more information about drains)



Front Closure Drain Bra



Drain Belt

Link to drain clothing options



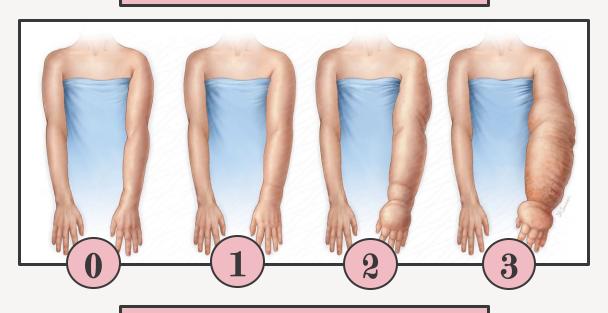
Managing Conditions

Lymphedema Lymphatic Cording Post-Mastectomy Pain Syndrome

Lymphedema

Lymphedema is swelling due to the build-up of lymph fluid in the tissues under the skin. This is caused by disruption to the lymph nodes that help drain the fluid. You may be at higher risk of lymphedema if lymph nodes on the side of your surgery are removed, treated with radiation, or cancer has spread to the lymph nodes.

Stages of Lymphedema



Common Signs & Symptoms

Swelling in the arm and hand

NOTE: Some swelling is normal after surgery. Lymphedema is a chronic disease.

Hardening, thickening, or other changes in the skin

Restricted movement and/or flexibility in joints such as the wrist or elbow

New aching or discomfort in the arm

Trouble fitting your arm into a jacket, rings/watches/bracelets feel tight
(American Cancer Society, 2021: Mayo Clinic Staff, 2022)

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Lymphedema

Preventing Lymphedema

There is no sure way to prevent lymphedema related to cancer, but there are ways to help lower your risk for it, and to reduce the chance of it worsening.

Get regular medical checkups.

Report any changes to your doctor.

Maintain a
healthy weight.
Talk to your
care team
about what is
right for you.

Exercise. Work with a certified specialist to design a plan for you.

Avoid skin infections, burns, and injuries.

Be careful with injections or blood draws.

Watch for signs of cellulitis (i.e., infection of the tissues under the skin).

Avoid tight or restrictive clothing or jewelry.

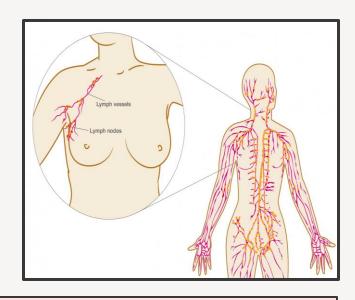
Tips to Prevent Injury or Infection

- o Treat infections of the at-risk arm and hand right away.
- o Wear gloves when doing housework or gardening.
- Keep skin clean and well-moisturized.
- o Avoid sunburn and excess heat from saunas, hot baths, tanning, etc.
- Don't cut your nail cuticles. Use a cuticle stick to push your cuticles back when they're soft (e.g., after a bath).
- o Use insect repellent when outdoors.
- o Avoid injuries, including scratches and bruises, to the at-risk arm.

Lymphedema

Lymphedema may start right after surgery or radiation, or months or even years later.

The most common form of lymphedema is painless. It tends to slowly develop, most often within 3 years of surgery. It does not get better without treatment.



Survivors Guide to Lymphedema: Nena Cote, breast cancer survivor, gives a brief explanation of lymphedema, recommendations for compression clothing, and tips and techniques to manage lymphedema.

Lymphedema Resources in Pittsburgh

- Advanced Wound Healing Cente r at Allegeheny General Hospital
- <u>UPMC Lymphedema</u><u>Management</u>
- Three Rivers Vein Center:
 Lymphedema Management

National Lymphedema Resources

- National Lymphedema Network
 (NLM) Garment Program Ask
 your provider if they are a
 member of the NLM.
- Lymphatic Education &
 Resource Network Resource
 Guide

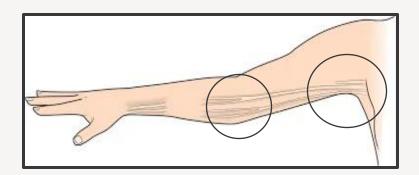
Lymphatic Cording

Axillary Web Syndrome (AWS), also known as "**lymphatic cording**" is the development of cord or rope-like structures in the underarm (axilla) area.

Cording can develop in the days, weeks, and even months after surgery.



Up to 86% of breast cancer patients develop axillary cording following surgery.





However, with treatment, approximately 90% of cording resolves within 3-6 months of development.



Cording occurs as a result of inflammation and damage to the lymphatic vessels during surgery. This damage can cause hardening of lymphatic vessels, blood vessels, and connective tissues. This leads to visible cords.

Risk Factors

Younger Age

Lower Body Mass Index

Extent of Surgery

Complications During Healing

Signs & Symptoms

Rope or cord-like structures that you can see and feel

Pain and tightness in underarm, elbow, or inner arm

Limited range of motion, difficulty raising arms above head or reaching

Lymphatic Cording Cont.

Impact on Daily Life: Due to pain, tightness, and limited range of motion, the following daily activities may be difficult:

Putting on a shirt



Washing your hair

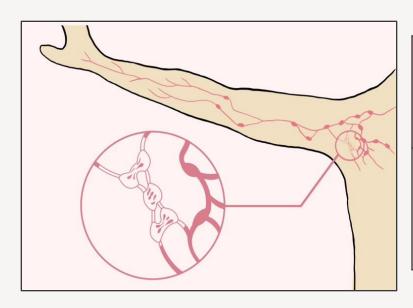


Putting on a seatbelt



Getting a cup from the cabinet





Pay attention to everyday tasks that involve using your affected arm and note if it is getting harder to do them.

NOTE: There are a few tests you can do at home to check for cording. Please consult with your physician before attempting the tests.

If there is any new tension, loss of strength, or you feel any cording, webbing, or string-like ropes, contact your healthcare team.

Treatment

- Cording may get better over time on its own, however it is still very important to talk to your healthcare team about treatment options.
- While cording does not typically come back or have long-term side effects, it can increase your risk of developing lymphedema.
- Physical or occupational therapy is often recommended to help you regain function.

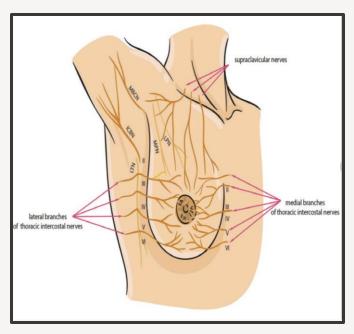
Check for cording **regularly** during the first **3-6 months** after surgery and check periodically for up to 3 years after surgery.

Post-Mastectomy Pain Syndrome (PMPS)

Post-Mastectomy Pain Syndrome, or PMPS, is a diagnosis referring to chronic pain after breast cancer surgery. This pain occurs at or near the operation site, lasting for at least 3 months after surgery. It is thought to be linked to damage done to the nerves in the underarm and chest during surgery. It is called postmastectomy pain syndrome, but it can also occur after a lumpectomy, breast reconstruction, or any surgery affecting nerves in this area.

Symptoms

- Symptoms may present as nerve pain, muscle spasm pain, or a combination of both, depending on which nerves are affected.
- Nerve pain symptoms can include numbness, shooting or prickly pain, and/or unbearable itching.
- Muscle spasm pain may occur in the chest wall, underarm, or arm.
- Most people with PMPS report their symptoms as MILD and not severe.



Nerves near or surrounding the breast that may be affected.

Treatment

Your healthcare team will determine what is best for your care and how to best manage your PMPS symptoms. Listed are some potential treatments your team may recommend.

- Myofascial Release: Specialized type of therapy technique to release the compressed nerves.
- Mind-Body Connection Techniques
- Procedures to Relieve Pain: Intercostal Nerve Blocks, Botox, Acupuncture, Nerve Stimulators



Interacting with Your Care Team

Before Surgery After Surgery Your Pharmacy

Interacting with Your Care Team: *Before* Surgery

Your cancer journey is yours. You have the <u>right</u> to ask questions and receive answers from your care team. Your care team is capable and willing to answer any questions you may have.



Questions to Ask Your Care Team Before Surgery



What type of breast surgery do you suggest for me? What are the risks and side effects of this surgery?

If I get chemotherapy or another type of treatment before surgery, will I need more after surgery?

How long will I be in the hospital? How much time should I expect for recovery at home? Will I need help from a caregiver?

Will I have stitches or staples at the surgery site? Will I have a drain in place when I get home? If so, how will I care for it?

What are the long-term side effects or health risks of this surgery? How does the removal of lymph nodes affect my chances of getting lymphedema?

Will I need occupational and/or therapy after surgery? Are there certain exercises I should do?

Who will coordinate my care?
Who will talk with me about the cost of my treatment?

When should I return for followup?

Interacting with Your Care Team: *Before* Surgery

You can use the following forms to gather details about your surgery and the recovery process. It may help to bring a friend with you to your appointments to help you ask questions and take notes.

Keep Track of Your Appointments & Questions

Use this form to record your appointment details and any questions you want to ask your care team before meeting with them.

> Click here for downloadable PDF

My Appointments and Questions

Use this form to record your appointments and questions you would like to ask your health care provider.

Date	Time	Appointment with	Phone	Notes/Questions

Short Form for Appointments

Use this form to keep track of general information during appointments about your surgery from various care team members.

Date of Surgery _____

Surgery Recovery Notes

Medical Oncologist

Treatment

Recovery Notes

Radiation Oncologist

Treatment _____

Recovery Notes

Interacting with Your Care Team *After* Surgery

If you experience the symptoms noted with ***, <u>call 911 or go to the</u>

<u>nearest emergency room</u></u>. If this is not a medical emergency, call your care
team. They always have someone on call, even on weekends. You should
always be cautious when it comes to your health.



When to Contact Your Care Team



***Signs of infection: redness, fever, increased pain/soreness that cannot go away, swelling, bad-smelling drainage, increased drainage.

***Shortness of breath, dizziness, and/or blurred vision.

Fluid building up near the site of the surgery (e.g., a seroma).

Ongoing problems with arm or shoulder pain, stiffness, or swelling.

Pain, swelling, redness, and bruising due to blood building up near the site of the surgery (e.g., a hematoma).

Any other issues mentioned by your care team including: loss of appetite/weight, coughing, headaches, unusual digestive problems, changes in menstrual periods.

The site of the surgery should heal in 6-8 weeks. However, it may take months for your affected breast, chest, and/or arm to feel "normal" again. Sometimes, the affected area may always feel different.

Interacting with Your Care Team: *After* Surgery

Follow-up appointments with your surgeon are typically **1-2 weeks after surgery**. They will examine you and check how your wound is healing. Your surgeon will also explain the results of your surgery and talk about any further treatments you might need.



When Will You Have Follow-up Appointments?



Follow-up appointments are a chance to raise any concerns you have about your progress and recovery. However, if you have serious concerns at this moment, do not wait to contact your care team right away.

- o <u>If you have finished treatment</u>, your follow-up visits may be every few months at first. The longer you have been free of cancer, typically the less often appointments are needed. After about 3 to 5 years, appointments are usually around once a year.
- o <u>If symptoms, exams, or tests suggest your cancer may have</u> returned, Imaging tests and/or biopsy may be done
- Mammograms typically occur 6-12 months after surgery and radiation are completed, and then at least every year after that. Your care team will provide more information on mammograms needed after surgery.

Interacting with Your Care Team: *After* Surgery

You should keep a record of your cancer surgery, the cancer treatments you receive, and your recommended follow-up care plan. Keeping track of your care can help you share important details with your care team throughout your life.



Click this box to view

"Cancer Treatment and Survivorship Care Plans"

(Scroll down to the "Breast" section)



This plan from the American Society of Clinical Oncology helps organize:

- Basic information about your cancer care history (e.g., treatments you received, medication doses, surgeries)
- Your recommended follow-up care plan if you are done with treatment (e.g., how often you should have check-ups, the types of tests you will need, the potential long-term effects of treatments you received)

This plan is not intended to provide a complete medical record. Fill out what you can on your own or contact your care team to get more information about your individual treatments and follow-up care.

Saving Your Medical Records

Saving your medical records can help you have documentation of your care and it can help the various members of your care team get correct information. You can often access them online or by asking your care team. It is *required by law* for hospitals, clinics, and doctor's offices to help you get your medical records.

Click here to view the American Cancer Society's tips on

Saving Your Medical Records

Interacting with Your Pharmacy

Your care team often works with pharmacies directly to provide you with safe medicines that may be needed after surgery. To ensure that you know the process of getting your medications, here are the general steps:

Blood Work

Blood work is often required to determine the types of medications that work best for you. Most times, blood work is either done on the day of treatment or sometimes beforehand.



Follow-up Appointments

During follow-up appointments, your care team checks if your body is responding well to your medications. You can also ask any questions you may have at this time.



General Process

- 1. Your doctor orders your medications.
- 2. A pharmacist will confirm the dosage of your medication(s) and check your lab/test results.
- 3. Medication labels are printed.
- 4. A pharmacist will prepare your medication(s) to give them to you.

Warning:

Always contact your pharmacy and care team if you are experiencing longlasting symptoms related to new medications to make sure you are taking medications that work best for you.



Self-Care Tasks

Restricted Movements Getting Dressed Showering & Hygiene

Restricted Movements

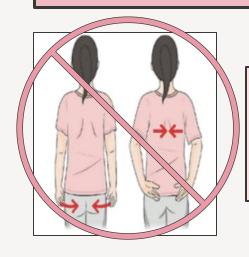
Overview

For ~3 weeks following your surgery, avoid certain movements such as:

- Raising your arms higher than 90 degrees (shoulder height)
- Reaching far in front of you, to the side,
 behind your back, or behind your head

Note: Restrictions and recommendations will vary depending on your surgeon and care team's guidelines, as well as the type of surgery. Below are general recommendations.

Movements to Avoid:



AVOID:

Arms Behind Back



AVOID:

Arms Up & Out to the Side



AVOID:

Arms Above Shoulder



AVOID:

Hands Behind Head

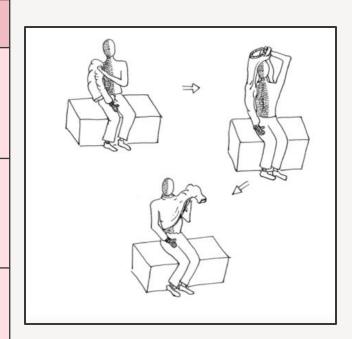
Getting Dressed

Upper Body

Wear loose fitting tops that close in the front for the first few weeks to avoid lifting your arms over your head (e.g., button down, zip-up sweatshirt, bathrobe).

If you have trouble moving your arm, dress that side of your body first, and undress that side last (see picture).

If you wear bras, avoid ones with underwire until your incisions have fully healed.



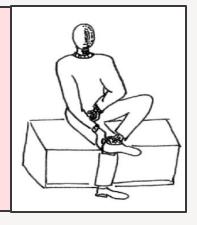
Socks & Shoes

You may be used to bending over to put your socks and shoes on. This bent position may be uncomfortable or painful after your surgery.

Avoid bending for long periods of time.

Here are two methods to make this task easier while you are healing:

Bring your foot up to you by crossing your ankle over your opposite knee.



Use a step stool to make it less of a reach.



Showering & Hygiene

Doctor Recommendations:

Ask your doctor about when you can shower after surgery.

You may have additional showering restrictions if drains were placed during your surgery.

Some doctors may recommend showering within 24 hours after surgery to prevent infection.

Caring for your incision:

Avoid taking a bath or submerging the surgical incision site. Soaking an open wound in water may cause infection.

Steri-Strips: Leave the thin paper strips (Steri-Strips) in place when showering. It is ok if they get wet. Gently pat the area dry when you are done.

Surgical Glue: Do not scrub the surgical glue.

Bathing Alternatives: Consider using products such as face or body wipes or dry shampoo to help you feel clean and refreshed between showers.

Shaving

Do not shave until your incisions have healed and you have talked to your doctor as there is a risk of skin irritation and infection.

Watch in a mirror when you do shave, since you may have decreased sensation or feeling in that area.

Tip for Showering with Drains

Use a lanyard or tie a ribbon around your neck and safety pin your drains to it to keep your drains safe and in place while you shower.



Deodorant

If your incision is near your underarm, do not use deodorant until your surgeon says it is okay, as it may cause irritation. You will typically be able to use it again in 1-2 weeks.





Household Activities

Kitchen Tips & Techniques Cleaning Tips & Techniques Laundry Tips & Techniques

Kitchen: Tips & Techniques



Saving Energy

- o Cook in advance and freeze meals in portion sizes.
- Stock up on pantry/freezer food, so you can limit how often you shop after surgery.
- Consider using disposable plates and utensils if you have limited support and/or do not want to worry about dishes.
- o Prepare meals sitting down to save energy.



Heavy Lifting & Reaching

- Prior to surgery, reorganize your cabinets, drawers, fridge, and freezer, so that you do not need to reach above shoulder height.
- Put bulk items into smaller containers to minimize lifting heavy objects (e.g., milk).
- Use lightweight tools with thick handles.



Shopping

- Make a shopping list and know where items are located to save time and energy in the store.
- Use grocery delivery services (e.g., Instacart and Uber Eats) to have your shopping done for you and delivered to your door.
- You can also use grocery pick-up services to have your shopping done for you and you pick it up at the store (e.g., Target, Whole Foods).

Cleaning: Tips & Techniques



Stocking Items

- Make sure you have all supplies you may need at home after surgery (e.g., wipes, sprays, sponges).
- Keep the items in an easy to reach area such as on a countertop.
- Your care team may tell you to limit bending and twisting movements.



Saving Energy

- o Plan your cleaning to save energy. Do big cleaning jobs when you feel more energetic, such as in the morning.
- Take your time and split big tasks into smaller ones. Rest when you feel tired.
- For example, you could clean one part of your refrigerator on Monday and save another part for Wednesday.



Setting Up Your Home

- Reduce clutter, especially in small areas and narrow walkways, to make it easier to move around your home.
- Prior to surgery, clean all surfaces, replace bedding, and clean your bathroom and kitchen to prepare your home and reduce the risk of potential infections.

Laundry: Tips & Techniques



Setting Up Your Home

- Set up your laundry area so that all your supplies are within reach.
- Keep your laundry basket on a table to avoid bending down.
- Leave a chair where you typically fold clothing, so you have some where to sit.
- Consider having someone help you with laundry until you feel comfortable.



Reducing Heavy Lifting

- Divide laundry into smaller loads to eliminate lifting a heavy basket.
- You can also use a rolling laundry basket to minimize lifting. If you have stairs, you can use a drawstring bag and take breaks as you go upstairs.
- Put liquid detergent into smaller containers, so you do not need to lift a heavy jug, purchase a smaller bottle, OR use laundry pods.

Tools to Help



Laundry Pods



Drawstring Laundry Bag



Rolling Laundry Cart



Sleep & Positioning

Tips & Techniques Optional Equipment & Tools

Sleep & Positioning: Tips & Techniques

In this section, you will find ways to adjust your current sleeping habits to prepare for surgery. Developing proper sleep habits before surgery to improve your overall sleep after surgery.

Speak to your care team about if and how your sleep may be affecting your treatment.



Tips for Sleeping <u>Before</u> Surgery



Sleep on your back

Your surgeon will most likely recommend sleeping on your back after surgery. If you do not usually sleep on your back, practice sleeping on your back PRIOR to the surgery to get more comfortable with positioning.



Maintain a regular sleep schedule

Pick a consistent time to be in bed EVERY day. For example, try to be in bed and relaxing by 9 p.m. everyday including weekends. (9 p.m. is an example. Choose a time that works for you.) It can be difficult to start this immediately after surgery. It is important to maintain a regular sleep schedule *before* surgery to continue the routine *after* surgery.



Set up a relaxing sleep space

Keep your space dark, quiet, and cool. Items such as blackout curtains, a noise machine, and a fan help to create a relaxing sleep space.

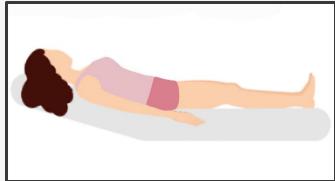
Sleep & Positioning: Tips & Techniques Cont.



Tips for Sleeping <u>After</u> Surgery

Sleeping in a safe position after surgery will help to protect your surgical incision. It will also help you with comfort.







Sleep on your back and, depending on your care team's recommendations, elevate your upper body

Sleeping on your back is the best position after breast cancer surgery. Sleeping on your back limits risk of injury to the affected area and promotes the healing process. Your care team may also recommend slightly elevating your upper body (typically when you have surgical drains in place). This prevents damage to the drains and can make getting out of bed easier.



Tips to stay sleeping on your back throughout the night:

- Use a pillow or wedge with extra neck support
- Place pillows or blankets under your knees
- Place pillows or blankets under your arms

Sleep & Positioning: Optional Equipment & Tools

Cold Packs

Use a cold pack on the incision area while in bed to alleviate pain and swelling. Talk with your care team to determine if you should use a cold pack after surgery.



Underarm Pillow

The area under your arm will be sensitive after surgery. An underarm pillow may protect your arm from rubbing against surgical site.



Wedge Pillow

A wedge pillow can help support your upper body when getting in and out of bed. It can also help improve circulation.



Absorption Pads

Absorption pads can be placed on couch or under fitted sheets to absorb fluids that may leak from drains.



Recliner

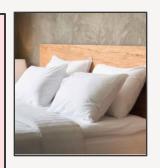
It may be challenging to sleep in your bed for various reasons (i.e. it's on the 2nd floor or it's too uncomfortable to sleep in a flat position). A recliner is an alternative place to sleep for the first few nights after surgery.



Sleep & Positioning: Optional Equipment & Tools Cont.

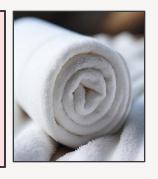
Stacked Pillows or Blankets

Stacked pillows or blankets behind your head and upper back is low-cost way to slightly elevate your upper body in bed. You can use this method if you do not already have or you do not want to purchase a recliner or wedge pillow.



Rolled Towels

Rolled towels can be placed under your arm and can act as an underarm pillow to protect your incision while resting and sleeping. You can use a rope, string, or band to secure the towel under your arm.



Bed Rail

A bed rail to rest your arm onto when getting in and out of bed easier to do after surgery. A bed rail can provide support and prevent strain in your arms and pulling on your chest tissue. It attaches to your bed frame.



Front Button Pajamas

Front button pajamas can help you prevent raising your arms. A smooth satin material also helps to move against bed sheets and pillows and will not get easily caught up in surgical drains.





Movement

Walking Walking Log Arm Recovery

Walking

Walking helps to improve strength and endurance after surgery. Adding a walk to your daily routine can give you the <u>following 3 benefits:</u>

- O1 Improve circulation & blood flow
- O2 Support the healing process
- **03** Reduce Stress

Note: If you experience pain in your arms when walking, support your arms by putting your hand(s) in your pocket (s) OR wear a light over the shoulder bag and rest your hand on the bag.

Movement Resources

Click this link to view: #Dance4Wellbeing – Dancing <u>Exercise</u>

(4-6 minutes)

Click this link to view: Advanced
Intensity Exercises for Cancer
Recovery

(25-35 minutes)

Click this link to view: Exercises after Breast Surgery:

<u>0-3 weeks post-surgery & 3-6</u> <u>weeks post-surgery</u> Click this link to view: General Exercises for Cancer Recovery (30 minutes)

Click this link to view: Mobility

Exercises After Breast Surgery:

For Tightness & Pain

(12 minutes)

Click this link to view: Exploring
New Exercises and Activities
(2 minutes each)

Walking Log

A walking log is a piece of paper that helps you track the amount of time you spend walking or the amount of steps taken. A walking log can be a motivating resource. Below you will find an example of a walking log as well as an empty log that you can use to track minutes walked.

Walking Log Guidelines:

- The steps can be intentional or during your daily tasks such as walking to the bathroom or walking to get a drink from the refrigerator.
- Walk at a comfortable pace and stop BEFORE you feel fatigued. This will allow you to increase and develop endurance.
- Walk with a normal pattern. If you find yourself changing the way you typically walk, STOP!
- It is OK to rest!

Example Walking Log:

		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Minute intended to wal	<u>ded</u>	10 minutes	15 minutes	Rest	10 minutes	12 minutes	Rest	15 minutes
Minut walke		10	Rest	5 minutes	Rest	10 minutes	Rest	15 minutes

Fillable Walking Log

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Minutes intended to walk							
Minutes walked							

Arm Recovery

Why Should You Move Your Arm(s) After Surgery?



It is important to move after surgery to get the arm(s) and shoulder(s) on the side of your surgery moving again. Movement activities can help you:

- Decrease side effects of your surgery (e.g., swelling, pain, and stiffness).
- Get back to your usual daily activities.
- Improve symptoms that may be caused by tight scars and cording.
- Prevent long-term issues with arm/shoulder movement and stiffness.
- Reduce the risk of lymphedema.

If you undergo radiation therapy after surgery, it is even more important to develop a regular habit of movement. Radiation can have long term effects on arm function.

Before You Begin Moving Your Arm(s)

- (1)
- **Talk to your care team.** Do this before starting any arm exercises. You may need to see a physical or occupational therapist, or a certified cancer exercise specialist, especially if you do not have full arm use 3-4 weeks after surgery.
- **(2**)
- **Keep in mind timing.** Some movements should not be done until drains and stitches are removed, but others can be done soon after surgery. The exercises that increase your arm motion can usually be started in a few days. Exercises to make your arm stronger should be added later.
- 3
- **Follow all precautions.** Your care team may also give you specific precautions, or safety guidelines, to follow such as avoiding heavy lifting and avoiding forceful, repetitive motions.

Arm Recovery Cont.



When to Stop Movement Activities



Stop movement activities and talk to your care team right away if you have:

- A collection of fluid or blood under the arm or in the breast/chest area.
- A wound infection or healing problems.
- · Pain that gets worse during exercise or continues once you finish.
- Any other unusual symptoms mentioned by your care team.

Start movement activities again once your care team says it is safe to do so.



Click this link to Princess Margaret

Cancer Centre Video 2

Movement: Additional Resources



cancer surgery depending on where

you are in your recovery.

NOTE: Do not start any of these activities without talking to your care team first. They can let you know which activities are right for you, when you should start doing them, and how often you should do them.

Click this link to American Cancer Society Resource	General guidelines and exercises to start a week or more after breast cancer surgery.
Click this link to Memorial Sloan Kettering Cancer Center Resource	Exercises to do after a mastectomy or breast reconstruction.
Click this link to Breast Cancer Care Booklet	Exercises suitable for breast surgery, lymph node removal, and radiotherapy.
Click this link to Princess Margaret Cancer Centre Video 1	Two sets of exercises to do after breast

50



Coping with Your Emotions

Breast Cancer & Body Image Helpful Resources When you return home after surgery, you might feel vulnerable or helpless. You may need help doing things you used to be able to do yourself. If your body has changed, it may affect your self-esteem.

It is completely normal to take time to get used to any changes in your body. Sometimes these changes can be hard to get used to, and it is okay to feel sad or angry about them. Your care team is ready to help you with those feelings and will not be surprised if you tell them that you feel this way. It is important to let them know if you are feeling this way.



If you or a loved one are experiencing a behavioral or mental health crisis, *call 988 to connect with the National Suicide Prevention Lifeline*. These services are available 24 hours a day, 7 days a week. They are at no cost to the caller.

Breast Cancer & Body Image

Breast cancer surgeries result in a wide range of changes in your body which can lead to various emotions. It is common and normal to feel uncomfortable or self-conscious about scars, the loss of a breast, the look of reconstructed breasts, lymphedema swelling, and weight changes. Changes in the relationship with your body can be profound, and it is important to address these challenges.

Tips for Positive Body Image After Breast Cancer

- O1 Understand that it is common to feel affected by the ways your body has changed after breast cancer surgery.
- **O2** Realize body image concerns can take a serious toll.
- Find ways to connect with your body engage with your body in ways that feel good and are not necessarily about how you look (go on a walk, take a hot bath, etc.).
- O4 Let go of societal appearance standards and ideals that don't suit you and make you feel bad.
- o5 If you are in a relationship, let your partner know what you are going through. Talk about how you are feeling and about how you can restore intimacy with each other.

NOTE: Body images are highly personal and differ for each individual

Resources to Help You Cope with Your Emotions

1

Cancer Bridges

Click the link above for information about free counseling services at Cancer Bridges. The clinicians on staff specialize in short-term support for people diagnosed with cancer, and their supporters. Members must live in PA to receive services.

2

American Cancer Society

Click the link above to learn about coping and living well during treatment. Resources include information on adjusting to life with cancer and ideas and resources to help you manage stress.

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Breast Cancer Now

Click the link above to access an in-depth guide. It features advice and resources on how to cope emotionally with breast cancer, take care of your mental health, and find support from others.

(4)

Susan G. Komen

Clink the link above for information on emotional and social support for you and your loved ones. It also includes information on mental health and current research.



Additional Resources

Additional Resources

1

Cancer Bridges

Click the link above for information about free counseling services at Cancer Bridges. The clinicians on staff specialize in short-term support for people diagnosed with cancer, and their supporters. Members must live in PA to receive services.

2

Centers for Disease Control and Prevention

Click the link above to access information from the CDC about breast cancer research and treatment. The site presents information in the form of videos, podcasts, and presentations.

3

BreastCancer.org

Click the link above to access a variety of resources. Topics include "newly diagnosed", "in treatment", and "caring for someone". Each section goes into detail about how to manage each stage.

(4)

National Breast Cancer Foundation

Click the link above for free information guides. Guides include topics such as how to prepare for a mammogram and breast self-examinations. Additionally, this site provides access to a Patient Navigator Program, which gives tips on how to overcome barriers.

Additional Resources



<u>UPMC Magee Women's Cancer LiveWell</u> <u>Survivorship Program</u>

Click the link above to access information for the Live Well Survivorship Program at UPMC. The program has information about breast cancer treatment, support groups, and volunteer opportunities.



Mastectomy Surgery Checklist

Click the link above to access a mastectomy surgery checklist developed by FORCE. It contains information to prepare yourself and your home for surgery.



AnaOno Insurance Coverage Resource

Click the link above to read an explanation of what insurance can cover after you have a surgery. The website highlights that it is always best to speak with your care team to understand your coverage and out-of-pocket costs.



10 Tips to Get Ready for Your Hospital Stay and Recovery

Click the link above to read tips on how to prepare for your breast cancer surgery recovery at the hospital and at home. These tips were shared by the members of BreastCancer.org.

- American Cancer Society. (2019, January 3). Post-mastectomy pain syndrome.
 - https://www.cancer.org/cancer/managing-cancer/side-effects/pain/post-mastectomy-pain-syndrome.html
- American Cancer Society. (2019, July 15). Preparing for treatment with good nutrition.
 - https://www.cancer.org/cancer/survivorship/coping/nutrition/before-treatment-begins.html
- American Cancer Society. (2019, October 2). *Getting ready for and recovering from cancer surgery*. https://bit.ly/3SoFVn4
- American Cancer Society. (2021, October 20). Breast reconstruction options.
 - https://www.cancer.org/cancer/types/breast-cancer/reconstruction-surgery/breast-reconstruction-options.html
- American Cancer Society. (2021, October 27). Breast-conserving surgery (lumpectomy).
 - https://www.cancer.org/cancer/types/breast-cancer/treatment/surgery-for-breast-cancer/breast-conserving-surgery-lumpectomy.html
- American Cancer Society. (2021, May 25). What is lymphedema? https://www.cancer.org/cancer/managing-cancer/side-effects/swelling/lymphedema/what-is-lymphedema.html
- American Cancer Society. (2022). *Saving your medical records*. https://www.cancer.org/content/dam/cancer-org/cancer-control/en/booklets-flyers/saving-your-medical-records.pdf
- American Cancer Society. (n.d. -a). ASCO cancer treatment and survivorship care plans.
- https://www.cancer.org/cancer/survivorship/long-term-health-concerns/survivorship-care-plans.html
- American Cancer Society. (n.d. -b). Exercising after breast cancer surgery.
 - $\underline{https://www.cancer.org/cancer/types/breast-cancer/treatment/surgery-for-breast-cancer/exercises-after-breast-cancer/surgery.html}$
- American Cancer Society. (n.d. -c). Follow up care after breast cancer treatment.
 - $\underline{https://www.cancer.org/cancer/types/breast-cancer/living-as-a-breast-cancer-survivor/follow-up-care-after-breast-cancer-treatment.html}$
- American Cancer Society. (n.d. -d). Mammograms after breast cancer surgery.
 - $\underline{https://www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/mammograms/having-a-mammogram-after-youve-had-breast-cancer-surgery.html}$
- American Cancer Society. (n.d. -e). People at risk of lymphedema: Lymphedema risk factors.
 - $\underline{https://www.cancer.org/cancer/managing-cancer/side-effects/swelling/lymphedema/for-people-at-risk-oflymphedema.html} \\$
- American Cancer Society. (n.d. -f). Questions to ask your doctor about breast cancer.
 - $\underline{https://www.cancer.org/cancer/types/breast-cancer/understanding-a-breast-cancer-diagnosis/questions-to-ask-your-doctor-about-breast-cancer.html$
- Anam, J. (n.d.). Sentinel Node Biopsy vs Axillary Lymph Node Dissection. Dr. Jay R. Anam:
 - Consultant Surgical Oncologist. https://drjayanam.com/blogs/sentinel-node-biopsy-vs-axillary-lymph-node-dissection/
- AnaOno. (n.d.). Insurance eligibility and coverage. https://www.anaono.com/pages/insurance-coverage
- Breast Cancer Care. (2019). Exercises.
 - https://breastcancernow.org/sites/default/files/publications/pdf/bcc6_exercises_booklet_2019_web.pdf
- BreastCancer.org (2023, October 12). Types of mastectomy.
 - https://www.breastcancer.org/treatment/surgery/mastectomy/types
- BreastCancer.org (n.d. -a). Before mastectomy: 10 tips to get ready for your hospital stay and recovery
 - https://www.breastcancer.org/treatment/surgery/mastectomy/tips-for-hospital-and-recovery
- BreastCancer.org (n.d. -b) Breast cancer information and support. https://www.breastcancer.org/
- BreastCancer.org. (n.d. -c). *Questions to ask your surgeon*. https://www.breastcancer.org/treatment/surgery/what-to-expect/questions-to-ask-surgeon

- Brobe. (n.d). *The post-surgical drain belt*. <a href="https://thebrobe.com/products/post-surgical-drain-belt?variant=556613061&srsltid=AfmBOorZnffDyy-l-vAu5LTB6nrQKt55MOutrZVxPWz5YyPkmJWmm4QpVa8&com_cvv=8fb3d522dc163aeadb66e08cd7450cbbdddc64c6cf2e8891f6d48747c6d56d2c
- Canadian Cancer Society. (n.d.). Axillary lymph node dissection (ALND). https://cancer.ca/en/treatments/tests-and-procedures/axillary-lymph-node-dissection-alnd#:~:text=An%20axillary%20lymph%20node%20dissection,node%20dissection%20or%20axillary%20lymph%20node%20dissection
- Cancer Council: Victoria. (n.d.). *Cancer surgery: Question checklist*. https://www.cancervic.org.au/cancer-information/treatments/treatments-types/surgery-question-checklist.html
- Cancer Council NSW. (n.d.). Emotions and cancer. https://bit.ly/42n015T
- Cedars-Sinai. (n.d.). *Axillary lymph node dissection*. https://www.cedars-sinai.org/health-library/diseases-and-conditions/a/axillary-lymph-node-dissection.html
- Cedars-Sinai. (n.d.). *Lumpectomy or partial mastectomy*. https://www.cedars-sinai.org/health-library/diseases-and-conditions/l/lumpectomy-or-partial-mastectomy.html
- Centers for Disease Control and Prevention. (2023, July 25). *Breast cancer: Resources to share*. U.S. Department of Health and Human Services. https://www.cdc.gov/cancer/breast/resources/index.htm
- Chen, C. F., Lin, S. F., Hung, C. F., & Chou, P. (2016). Risk of infection is associated more with drain duration than daily drainage volume in prosthesis-based breast reconstruction: A cohort study. *Medicine*, 95(49), e5605. https://doi.org/10.1097/MD.0000000000005605
- Cleveland Clinic. (2023, September 8). Sentinel

 Node Biopsy. https://my.clevelandclinic.org/health/diagnostics/9192-sentinel-node-biopsy
- Connor, K. (2023, June 20). *Before mastectomy: 10 tips to get ready for your hospital stay and recovery*. breastcancer.org. https://www.breastcancer.org/treatment/surgery/mastectomy/tips-for-hospital-and-recovery
- Cote, N. (2023, May 15). Survivor's guide to lymphedema. *Keep a Breast*. <a href="https://www.keep-a-breast.org/blog/2023/5/15/lymphedema-guidegad_source=1&gclid=Cj0KCQjwqpSwBhClARIsADlZ_TnEbrbm2-j6YiLor5j5GXZiLMr_xEm1V9K_kvba03etRwP3AUG0hzoaAhyWEALw_wcB_dema-guidegad_source=1&gclid=Cj0KCQjwqpSwBhClARIsADlZ_TnEbrbm2-j6YiLor5j5GXZiLMr_xEm1V9K_kvba03etRwP3AUG0hzoaAhyWEALw_wcB_dema-guidegad_source=1&gclid=Cj0KCQjwqpSwBhClARIsADlZ_TnEbrbm2-j6YiLor5j5GXZiLMr_xEm1V9K_kvba03etRwP3AUG0hzoaAhyWEALw_wcB_dema-guidegad_source=1&gclid=Cj0KCQjwqpSwBhClARIsADlZ_TnEbrbm2-j6YiLor5j5GXZiLMr_xEm1V9K_kvba03etRwP3AUG0hzoaAhyWEALw_wcB_dema-guidegad_source=1&gclid=Cj0KCQjwqpSwBhClARIsADlZ_TnEbrbm2-j6YiLor5j5GXZiLMr_xEm1V9K_kvba03etRwP3AUG0hzoaAhyWEALw_wcB_dema-guidegad_source=1&gclid=Cj0KCQjwqpSwBhClARIsADlZ_TnEbrbm2-j6YiLor5j5GXZiLMr_xEm1V9K_kvba03etRwP3AUG0hzoaAhyWEALw_wcB_dema-guidegad_source=1&gclid=Cj0KCQjwqpSwBhClARIsADlZ_TnEbrbm2-j6YiLor5j5GXZiLMr_xEm1V9K_kvba03etRwP3AUG0hzoaAhyWEALw_wcB_dema-guidegad_source=1&gclid=Cj0KCQjwqpSwBhClARIsADlZ_tnEbrbm2-j6YiLor5j5GXZiLMr_xEm1V9K_kvba03etRwP3AUG0hzoaAhyWEALw_wcB_dema-guidegad_source=1&gclid=Cj0KCQjwqpSwBhClARIsADlZ_tnEbrbm2-j6YiLor5j5GXZiLMr_xEm1V9K_kvba03etRwP3AUG0hzoaAhyWEALw_wcB_dema-guidegad_source=1&gclid=Cj0KCQjwqpSwBhClARIsADlZ_tnEbrbm2-j6YiLor5j5GXZiLMr_xEm1V9K_kvba03etRwP3AUG0hzoaAhyWEALw_wcB_dema-guidegad_source=1&gclid=Cj0KCQjwqpSwBhClARIsADlZ_tnEbrbm2-j6YiLor5j5GXZiLMr_xEm1V9A_jwqpSwBhClARIsADlZ_tnEbrbm2-j6YiLor5j6YiLor
- Department of Human Services. (n.d.). 988 National mental health crisis line. https://www.dhs.pa.gov/Services/Mental-Health-In-PA/Pages/988.aspx
- DePolo, J. (2018, October 30). *Post-mastectomy pain syndrome: What it is and how it's treated.* https://www.breastcancer.org/podcast/postmastectomy-pain-syndrome
- Equilibrium Physiotherapy. (2018). *3 things to improve axillary web syndrome*. https://www.eqphysio.com.au/blog/3-things-to-improve-axillary-web-syndrome
- FORCE. (n.d.). *Mastectomy surgery checklist: How to prepare and suggestions for comfort*. https://acrobat.adobe.com/link/review?uri=urn:aaid:scds:US:566ad285-9df7-3bf0-9e32-387d6fc96425
- Healthline. (2022). *Axillary web syndrome: Causes, symptoms, and treatment*. https://www.healthline.com/health/axillary-web-syndrome
- Inspired Comforts. (n.d.). *Mastectomy & post-surgery drain carrier belt & shower holder (two pack)*. https://www.inspiredcomforts.com/products/mastectomy-post-surgery-drain-carrier-belt-shower-holder-two-pack
- Johns Hopkins Medicine. (2022, May 13). *Treating lymphedema*. https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/treating-lymphedema

- Kim, K. H., Yeo, S. M., Cheong, I. Y., Kim, Y., Jeon, B. J., & Hwang, J. H. (2019). Early rehabilitation after total mastectomy and immediate reconstruction with tissue expander insertion in breast cancer patients: A retrospective case-control study. *Journal of Breast Cancer*, 22(3), 472–483. https://doi.org/10.4048/jbc.2019.22.e40
- Koehler, L. A., Haddad, T. C., Hunter, D. W., & Tuttle, T. M. (2018). Axillary web syndrome following breast cancer surgery: symptoms, complications, and management strategies. *Breast cancer: Targets and Therapy, 11*, 13–19. https://doi.org/10.2147/BCTT.S146635
- Liu, D. (2022, February 9). *Mastectomy overview*. City of Hope Cancer Center. https://www.cancercenter.com/cancer-types/breast-cancer/treatments/surgery/mastectomy
- Massachusetts General Hospital. (2016). What you need to do before and after your breast surgery with post-op drains. https://www.massgeneral.org/assets/mgh/pdf/cancer-center/breast-cancer/preop-breast-drains.pdf
- Mayo Clinic Staff. (2022, November 24). *Lymphedema*. https://www.mayoclinic.org/diseases-conditions/lymphedema/symptoms-causes/syc-20374682
- MD Anderson Cancer Center. (n.d.). *Immediate vs. delayed reconstruction*. https://www.mdanderson.org/treatment-options/breast-reconstruction/immediate-vs--delayed-reconstruction.html
- Milwaukee Liposuction Specialty Clinic. (2023, May 15). *Preparing your home for a surgical recovery*. https://www.milwaukeeliposuction.com/blog/preparing-your-home-for-a-smooth-surgical-recovery-tips-from-aesthetic-surgical-images/
- National Breast Cancer Foundation. (n.d.). *Breast cancer resources*. https://www.nationalbreastcancer.org/about-breast-cancer/early-detection/breast-cancer-resources/
- National Cancer Institute. (n.d.). *Segmental mastectomy*. https://www.cancer.gov/publications/dictionaries/cancer-terms/def/segmental-mastectomy
- KZN Health. (2000). Occupational therapy: Dressing https://www.kznhealth.gov.za/occtherapy/dressing.pdf
- Polo, K. M., Hunter, E. G., & Morikawa, S. (2023). Interventions to improve sleep for people living with or beyond cancer (2018-2022). *American Journal of Occupational Therapy*, 77. https://doi.org/10.5014/ajot.2023.77S10036
- Saratoga Hospital Center for Breast Care. (2022). *Frequently asked questions: Saratoga hospital*. https://www.saratogacenterforbreastcare.org/faqs
- Shimoda, K., Imai, H., Tsuji, T., Tsuchiya, K., Tajima, H., Kanemaki, H., & Tozato, F. (2019). Factors affecting the performance of activities of daily living in patients with advanced cancer undergoing inpatient rehabilitation: results from a retrospective observational study. *Journal of Physical Therapy Science*, *31*(10), 795–801. https://doi.org/10.1589/jpts.31.795
- Strøm, L., Danielsen, J. T., Amidi, A., Cardenas Egusquiza, A. L., Wu, L. M., & Zachariae, R. (2022). Sleep During Oncological Treatment A Systematic Review and Meta-Analysis of Associations With Treatment Response, Time to Progression and Survival. *Frontiers in neuroscience*, *16*, 817837. https://doi.org/10.3389/fnins.2022.817837
- Susan G. Komen Breast Cancer Foundation. (2023, December 28). *Breast reconstruction*. https://www.komen.org/breast-cancer/treatment/type/surgery/breast-reconstruction/
- Susan G. Komen Breast Cancer Foundation. (2024, February 22). *Lymphedema related to breast cancer*. https://www.komen.org/breast-cancer/survivorship/health-concerns/lymphedema/
- The University of Texas MD Anderson Cancer Center. (n.d.). *Immediate vs. delayed reconstruction*. https://www.mdanderson.org/treatment-options/breast-reconstruction/immediate-vs--delayed-reconstruction.html

- Tilley, A., Thomas-MacLean, R., Kwan, W. (2009). Lymphatic cording or axillary web syndrome after breast cancer surgery. *Canadian Journal of Surgery*, *52*(4), 105-106. <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2724805/#:~:text=Lymphatic%20cording%20or%20axillary%20web%20syndrome%20(AWS)%20refers%20to%20a,down%20to%20the%20antecubital%20fossa.
- UPMC Hillman Cancer Center (n.d.) Patient education support binder.
- UPMC Hillman Cancer Center. (n.d.). The livewell survivorship program of Magee-Womens Cancer Program of UPMC Hillman Cancer Center. https://www.upmc.com/locations/hospitals/magee/services/magee-womens-cancers/livewell-survivorship
- University Health Network. (2023, February). Functional rehab after breast cancer surgery. https://www.uhn.ca/PatientsFamilies/Health_Information/Health_Topics/Documents/Your_Functional_Rehabilitation_After_Breast_Surgery.pdf
- Uscher, J. (2023, July 18). *7 tips for positive body image after breast cancer*. BreastCancer.org. https://www.breastcancer.org/managing-life/taking-care-of-mental-health/body-image
- Uscher, J. (2024, March 4). *Breast reconstruction surgery with implants*. BreastCancer.org. https://www.breastcancer.org/treatment/surgery/breast-reconstruction/types/implant-reconstruction
- Very Well Health. (2022, August 27). 10 pillows to use for comfort during breast cancer treatment and recovery. https://www.verywellhealth.com/comfort-pillows-breast-cancer-recovery-430551
- Wilmington Plastic Surgery (September 10, 2020). *Sleeping after breast surgery*. https://www.wilmingtonplasticsurgery.com/Blog/293836/Sleeping-After-Breast-Surgery