



Breast Cancer Handbook:

My Personal Journey to Healing and Recovery



Penn Medicine



CANCER PROGRAM

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Penn Medicine Virtua Cancer Program

1-888-Virtua-3 (1-888-847-8823)

A toll-free line for information about physicians, services, programs and community events

Breast Cancer Handbook® My Personal Journey to Healing and Recovery is confidential and proprietary information.



About the Virtua Breast Care Program



You want the best possible care

A diagnosis of breast cancer can be a frightening experience for any woman and her loved ones. You face many decisions during this challenging time. You have unanswered questions and concerns and want the best possible care. We understand your needs and are here to help you.

This book has been designed to inform you and help you keep all of your breast cancer care information organized. Each woman's journey is a very personal experience, and we believe that the information provided in this guide will help you with the questions and decisions in the days ahead.

This book has been developed to help educate you, decrease your anxiety and assist you as you deal with the physical and emotional aspects of breast cancer. Breast cancer survivors, women that were in your shoes not too long ago, helped create this book. Their tips and insight were so important and we are grateful for their time, wisdom and willingness to share.

The goal of this manual is to provide general information about what to expect and how to care for yourself. Your healthcare providers will be sharing many things with you and may have specific instructions regarding your care. The pages of this book are designed to supplement that information and provide information and answers about most of what you will encounter through this journey. There is a great deal of information contained in this book, and we don't recommend reading it all at once. The table of contents will help you find and choose the information you need.

We sincerely hope that *The Breast Cancer Handbook* will be a valuable tool for you as you make your *Personal Journey to Healing and Recovery*. We welcome any thoughts you would like to share with us about this manual.

This guide cannot answer every question or prepare you for every situation.

Please feel free to call your team – your doctors, nurse navigator, social worker and other team members if you have any questions.



About the Penn Medicine Virtua Cancer Program

www.virtua.org/services/cancer-treatment

The Penn Medicine Virtua Cancer Program combines sophisticated technology and broad-based expertise with personalized care as well as access to the latest cancer treatments, clinical trials, support services and education programs. Closely integrated teams of medical, surgical, radiation, pathology, pharmaceutical, nursing and related cancer specialists combine their expertise to offer patients a care plan that reflects the most current approaches to treatment. Dietitians, social workers, physical and occupational therapists, and home-care professionals support the treatment team. The team's active involvement in clinical research, pursuit of continuing education and direct patient care keeps Virtua at the forefront of cancer treatment.

- A closely integrated team of oncology professionals offers each patient an individual, state-of-the-art treatment plan.
- Comprehensive oncology services are available to treat breast, prostate, lung, colon, rectal, liver, stomach, bone and other types of cancer.
- Radiation oncology delivers advanced treatments in a comfortable setting.
- State-of-the-art chemotherapy medications and techniques are available including innovative methods such as chemoembolization.

- A well-established surgical program includes traditional diagnostic and treatment methods as well as minimally invasive procedures for breast biopsy, such as stereotactic biopsy, and the full range of reconstructive options for those patients undergoing mastectomy.
- The Breast Care Oncology Nurse Navigator Program matches a patient to a nurse navigator who ensures that patients obtain all necessary appointments in an expedited manner. The navigator also helps guide the patients to support services and other available resources through the Virtua Cancer Program.

www.virtua.org/services/cancer-treatment/oncology-nurse-navigation

- An Oncology Licensed Clinical Social Worker provides comprehensive counseling services to patients and their family members. Individual, family, and group counseling services are available.
- Surgeons, medical oncologists, radiation oncologists, radiologists, pathologists, oncology nurses and social workers specializing in breast cancer care attend breast cancer conferences. These interdisciplinary meetings are forums to discuss treatment options and planning for newly diagnosed patients.



- The Cancer Genetics Program at Virtua helps people with a personal and/or family history of cancer learn more about risk factors associated with hereditary cancer. Patients learn up-to-date information about their risk factors as well as screening and prevention options to reduce their risk. Genetic testing is offered for eligible patients. The staff includes licensed and board-certified genetic counselors, medical oncologists, and social workers trained in cancer prevention.
- Renowned physicians provide pathology services and sophisticated techniques for tissue and cell examination.
- Radiology services provide diagnostic examinations and therapeutic procedures using magnetic resonance imaging (MRI), interventional and nuclear radiology, ultrasonography, computed tomography (CT), positron emission tomography (PET) and mammography.
- Clinical trials sponsored by the National Cancer Institute (NCI) and pharmaceutical companies are available.
- Cancer conferences consisting of distinct multidisciplinary groups of clinicians discuss new or unusual cases.
- Inpatient oncology care is provided by a team of oncology professionals who provide high-quality care in a comfortable setting.
- Physical and occupational therapies are used to manage some of the side effects of cancer. There are also specially trained therapists available to provide care and training to patients managing the symptoms of lymphedema.
- Nutritional counseling provides individualized lifestyle recommendations, information about food and drug interactions, and nutritional advice to reduce side effects of treatments.
- Community outreach and home-based programs such as home health care are provided as needed.
- Pastoral care, by clergy of various faiths, is available upon request for spiritual counseling, guidance and prayer.
- Patient education provides special programs and materials to enlighten and to reinforce patient/clinician discussions.
- Exercise programs are in place to help improve both emotional and physical health. Several exercise program options are available to fit individual preferences. Special therapies are also available to help prevent and treat lymphedema.



Is the Penn Medicine Virtua Cancer Program accredited?

Yes, the Penn Medicine Virtua Cancer Program meets state and national accreditation standards that are designed to ensure high-quality care for oncology patients. The Penn Medicine Virtua Cancer Program is accredited by the Commission on Cancer of the American College of Surgeons, and has been recognized with their Outstanding Achievement Award for providing comprehensive care in a community setting. The Penn Medicine Virtua Cancer Program is a member of the Association of Community Cancer Centers. Our Radiology and Radiation Oncology Departments are fully accredited by the American College of Radiology and the Food and Drug Administration. Virtua is also accredited by the Joint Commission on the Accreditation for Healthcare Organizations (JCAHO), and has been recognized with the New Jersey Governor's Award for Quality.

All of our Penn Medicine Virtua Cancer Program physicians are board certified in their specialties, and many of them have completed specialty fellowship training in surgical, medical and radiation oncology. They have been selected by Virtua for their clinical expertise in cancer diagnosis, treatment, and clinical research. Many of our inpatient and ambulatory registered nurses are oncology certified and/or breast care certified— a mark of advanced training in the specialty of cancer care.

We support many national breast cancer advocacy organizations and their local affiliates. A number of our physicians, nurses and staff have been recognized for their outstanding contributions to breast cancer care in our community.

Breast care program accreditation

Virtua's breast program was granted a full accreditation designation in 2009, the 1st in Southern NJ, by the National Accreditation Program for Breast Centers (NAPBC), a program administered by the American College of Surgeons. The accreditation by the NAPBC is given to centers that have voluntarily committed to provide the highest level of quality breast care to patients with disease of the breast. Each center must undergo a rigorous evaluation and review performance and compliance with NAPBC standards. To maintain accreditation, centers must be monitored and undergo a site review every three years.

Where a patient chooses to go for treatment can affect the care they receive and ultimately the results they achieve. Our physicians, nurses, navigators, counselors, social workers and dieticians from across the disciplines meet regularly to develop and review a plan of care for our patients. Virtua's program provides patients every significant advantage in their battle against breast disease:

- Board-certified physicians
- Nurses specially trained in the needs of breast patients
- Treatment by multidisciplinary team of experts
- Continued support during and after treatment
- Information about ongoing clinical trials and new treatments
- Nurse navigators to guide them through treatment and follow-up care



Cancer Genetics Program at Virtua

www.virtua.org/services/cancer-treatment/genetic-counseling-and-testing-cancer

Virtua's Cancer Genetics Program is a unique and comprehensive program designed to assist patients in determining their risk for developing cancer. Licensed and board-certified genetic counselors provide risk counseling designed to meet the unique needs of every patient.

During your Assessment

Risk factors for breast and other associated cancers as well as the benefits and limitations of available screening methods will be reviewed. There will be a discussion of how pregnancy history, hormone use, diet and other factors may be related to these cancers and how having a family history of breast and other types of cancer can increase your risk of developing these diseases. Participants will learn the cancer patterns within their own family as well as ways to reduce risk. Information on clinical trials for high-risk women and genetic testing options including BRCA1 & BRCA2 and other cancer related genes will be provided.

If you answer "yes" to any of the questions below and are 18 years of age or older, you can benefit from our program.

Have you been?

- Diagnosed with breast cancer under age 50
- Diagnosed with triple negative breast cancer at age 60 or younger
- Diagnosed with more than one type of cancer or breast cancer twice
- Diagnosed with breast, ovarian or pancreatic cancer at any age and are of Ashkenazi (Eastern European) Jewish decent
- Diagnosed with breast, pancreatic or ovarian cancer and have one first-degree or second-degree relative with breast &/or ovarian &/or pancreatic &/or prostate cancer on either side of the family (includes parents, siblings, children, aunts and uncles). This includes male breast cancer.
- There is a known cancer gene mutation in the family.

Cancer genetic evaluation through the Virtua Cancer Genetics Program is usually a two-step process. The first visit consists of a family history and medical history evaluation, discussion of the benefits, risks, and limitations of genetic testing and possibly a blood test. The second visit patients meet with a genetic counselor, and possibly a physician. Personalized recommendations of cancer screenings, surgical options and available research for the patient and their family members are also made at this time.



Test Results and Reports

(pocket pages here)



Understanding Breast Cancer



About Breast Cancer

Breast cancer is a complex disease. Not all women receive the same treatment because there are different types of breast cancer. Breast cancers are named according to the part of the breast in which they develop. Cancers beginning in the ducts (milk passages) are called ductal carcinomas and comprise the largest number of cancers in women.

A small percentage of cancers begin in the lobules (milk-producing glands) of the breast and are called lobular carcinomas.

Non-invasive breast cancers

Non-invasive breast cancers are contained within the walls of the breast area where they developed. They have not invaded the surrounding tissue.

Ductal carcinoma in situ (DCIS) is the most common type of non-invasive breast cancer. It is sometimes called intraductal carcinoma. Cancer cells are in the ducts only and have not spread.

Invasive breast cancers

Invasive breast cancers spread beyond the walls of the ducts and lobules. These cells first invade the surrounding breast tissue. They have the potential to spread elsewhere in the body through the bloodstream or lymphatic system. These types of cancers are also referred to as infiltrating carcinomas.

Invasive ductal carcinoma accounts for 80 percent of all breast cancers. Cancer begins in the duct and spreads into the fatty tissue and may spread to other body parts.

Invasive lobular carcinoma accounts for approximately 10 to 15 percent of the invasive breast cancers. Cancer begins in the milk-producing glands and spreads into the breast and possibly other body parts.

Other types of invasive carcinomas account for approximately 10 percent of invasive cases.



How is breast cancer diagnosed?

Once you or your healthcare provider find a suspicious area in your breast it will be necessary to do further testing to determine if there is a cancer in your breast. Your doctor will order a biopsy so that they can remove cells or tissues from the breast which will then be checked under a microscope to see if there are any cancer cells present.

There are two different ways to do a biopsy - with a needle or with surgery. A needle biopsy samples the suspicious area to determine what it is and a surgical biopsy removes the questionable area to look at it under the microscope. With either a needle biopsy or surgical biopsy, if the area cannot be felt or seen, then it will be necessary to use an imaging procedure (mammogram, ultrasound or MRI) to identify the area for biopsy.

Fine needle aspiration biopsy (FNAB) – This technique uses a thin needle to remove fluid or cells from a lesion for biopsy. This is the least invasive approach to biopsy, but also gives the smallest specimen for the pathologist to examine, which may not be enough to make a definite answer.

Core needle biopsy - This technique uses a hollow needle which can remove pieces of the tissue in an abnormal area. Sometimes this needle also uses a vacuum to remove even larger pieces of the tissue.

Surgical biopsy – This procedure removes the area of concern to look at it under the microscope. This is usually done in an outpatient surgery center with local anesthesia in the breast and sedation given intravenously.

Image guidance for biopsies

Stereotactic – The radiologist uses x-ray images from a specially designed mammography unit to guide a needle into the suspicious area to remove tissue from the breast.

Ultrasound - This can be used to guide a needle into the area of concern or it can be used to guide an excisional biopsy. Ultrasound uses sound waves to identify areas of concern in the breast. The patient lies on her back with this approach.

MRI – This is a technique that uses magnetic fields to create images of the breast. It requires the use of an intravenous contrast material. The patient lies on her stomach for the procedure. The MRI is used to guide a biopsy of areas in the breast which cannot be felt or seen with the mammogram or ultrasound. The MRI can be used to guide a core needle biopsy or wire localization for excisional biopsy.

Wire or needle localization – This is an imaging technique that guides a wire or needle into an area in the breast which cannot be felt. This allows precise localization for the surgeon to then remove that area by following the wire or needle.

Remember there are reasons why one biopsy approach may be recommended over another in a given situation and you should discuss this with your physician. Generally an effort is made to make the diagnosis with a needle biopsy and use surgery for the treatment of breast cancer. This may not be possible in all situations and again should be discussed with your physician.



Treating Breast Cancer



How is breast cancer treated?

Treating breast cancer requires a team of specialists. Your overall team includes your doctors, nurses, social workers, dietitians, therapists, clergymen, pastoral care representatives and your family and friends.

The overall treatment approaches are local (treating the breast and surrounding area) and systemic therapy (treating the whole body). In discussing your treatment options and making recommendations, your doctors will consider the type and extent of your cancer, your medical history and your preferences.

Basic types of treatment:

- Surgery
- Radiation therapy
- Targeted Therapy
- Chemotherapy
- Hormonal therapy

Information that can help determine treatment options

Oncotype DX® Breast Cancer Test

The Oncotype DX® breast cancer test is a diagnostic test created to help patients who have been recently diagnosed with early stage, estrogen receptor (ER) positive breast cancer. The test gives patients and their doctors more information about their specific tumor and allows them to create a better treatment plan. Along with other pieces of information, the Oncotype DX® breast cancer test can assist in deciding whether or not to make chemotherapy part of your treatment plan. The test can also help doctors determine the likelihood of the cancer recurring in the future. These test results are different from hereditary cancer testing.

The Oncotype DX® breast cancer test works by examining a sample of the tumor taken at surgery and measures a group of breast cancer genes to see how active they are. The result is reported as a number between 0 and 100, known as a Recurrence Score® result. A lower score means that the cancer has a low chance of recurring, and a higher score means that there is a higher chance of the cancer returning. The score provides patients and doctors with important information regarding the potential benefit of adding chemotherapy to hormonal therapy. A low score indicates minimal benefit, whereas a high score can have significant benefit from chemotherapy. Because everyone's body and tumor are unique, obtaining a Recurrence Score® result helps make treatment decisions tailored to you.



Surgery

Surgery has an important role in the treatment of breast cancer. It is often the first step in your treatment plan. The type of surgery recommended by your doctor is based on several factors including size, location and type of tumor, size of the breasts, whether the cancer has spread, medical history, age, preferences and feelings.

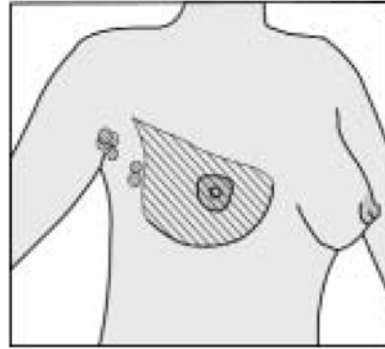
You and your surgeon will discuss your options and your concerns. This information will assist you in making your treatment decisions. Remember that breast cancer treatment requires a team approach, and you are an important member of that team.

This section will give a brief overview of the types of breast cancer surgery including lymph node dissection, sentinel lymph node biopsy and plastic surgery options. Surgical options to treat the whole breast are mastectomy (removal of the breast) or lumpectomy (removal of the cancerous area with a rim of normal tissue). A lumpectomy is usually followed by radiation therapy. Clinical trials have shown that both options provide similar long-term survival rates for most types of early breast cancer. However, neither option guarantees that cancer will not recur. Whichever choice you make, you will be followed by your doctor through tests and examinations.

Types of breast cancer surgery

Modified radical mastectomy

(sometimes called a total mastectomy with axillary node dissection)



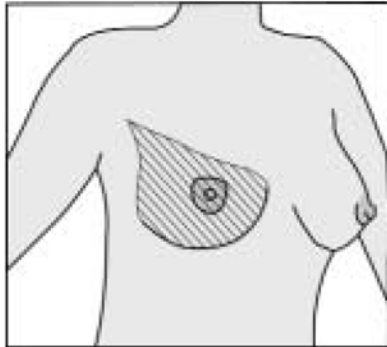
A modified radical mastectomy is an operation that removes the breast (tissue, ducts, lobules and fatty tissue), a portion of the skin with the nipple, the lining of the chest wall muscles and lymph nodes under the arm. The lymph node surgery may consist of a sentinel node biopsy (p. 17) at the time of the mastectomy.

The operation requires general anesthesia and takes approximately two hours. The surgery will take longer if combined with reconstruction. Although this surgery can be done in an outpatient center, generally patients stay in the hospital for one to two days.



Total mastectomy

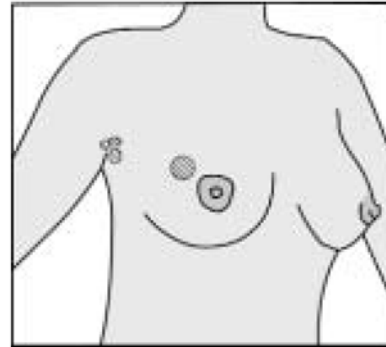
(sometimes called a simple mastectomy)



A total mastectomy is an operation that removes the breast (tissue, ducts, lobules, fatty tissue and nipple). Lymph nodes are not removed with this procedure, although a sentinel node biopsy may be done. A scar across the chest where the breast was removed is present. Generally, you will stay in the hospital for one to two days.

Lumpectomy

(sometimes called a segmental partial mastectomy)



A lumpectomy is an operation that removes the cancerous area and a surrounding rim of healthy, normal tissue. Remembering that local treatment means treating the “whole breast” and not just the lump, this procedure is usually followed by radiation therapy directed at the breast.

A lumpectomy is sometimes referred to as breast conserving therapy because it attempts to maintain the breast’s size, shape and sensation. Not everyone is a candidate for this procedure. Several factors about the tumor size, location and features of the tumor, the size of the breast, ability to get clear margins (a rim of normal tissue around the cancer), the potential cosmetic results and personal preferences all influence the final surgical decision.

A lumpectomy can be done as outpatient surgery and you can go home the same day. Sentinel node biopsy is commonly done at the time of lumpectomy. If you have a lumpectomy with an axillary lymph node dissection at the same time, you may stay overnight in the hospital.



What is a sentinel lymph node biopsy?

A technique for examining the axillary lymph nodes is a sentinel lymph node biopsy. This technique is used to identify cancer cells in the lymph nodes. Depending on the results, this may mean avoiding more extensive surgery. Surgeons at Virtua have been specially trained in identifying sentinel nodes and performing sentinel node biopsies. Your surgeon will discuss this option with you.

The sentinel node is the first lymph node into which a breast tumor drains and is the one most likely to contain cancer cells. By removing just the “sentinel” nodes (can be one to four sentinel nodes) doctors will be able to tell with a great degree of accuracy, and much less surgery, if cancer has spread into the lymph nodes.

How is a sentinel lymph node biopsy performed?

Surgeons use a radioactive tracer and blue dye to locate the sentinel lymph nodes. In the nuclear medicine department, a small amount of a radioactive tracer material is injected into your breast around the tumor site. Some women state that they experience some temporary burning or stinging when the material is being injected. The tracer contains less radiation than an x-ray or bone scan.

In the operating room, a blue dye is injected into the breast tissue to help visually identify the location of the sentinel lymph node. The lymphatic vessels carry the radioactive material and dye from the tumor site to the sentinel node just as a cancer cell might travel.

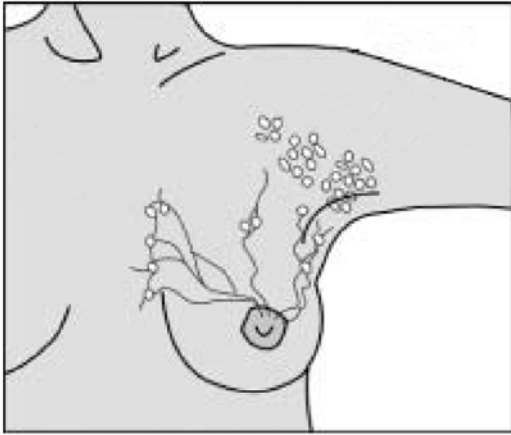
After allowing time for the radio-active material and dye to travel, the surgeon examines the tissue for the blue discoloration and uses a small probe to identify the radioactive material. After the sentinel lymph node(s) are located, the surgeon will make a one- to two-inch incision and remove the sentinel node(s) for the pathologist to examine. Sentinel lymph node biopsy does not usually require the placement of a surgical drain (common with an axillary- node dissection).

The sentinel nodes will be examined by a pathologist and usually this result will be reviewed with you at the time of your post-operative office visit. The main significance of involved lymph nodes, it now appears, is the importance of adding chemotherapy to your treatment plan. In the past, it could also mean additional lymph node removal, but this may not be necessary. This should be reviewed with your surgeon.

In this case, your surgeon will discuss with you the possibility of removing additional lymph nodes or other treatment options.



Axillary Lymph Node Dissection



Whether you have a lumpectomy or mastectomy for invasive breast cancer, your surgeon will probably remove some of the lymph nodes under your arm to check if the cancer has spread outside the breast. This procedure is usually done at the same time as the breast surgery. An incision about two inches long is made under the arm to remove a portion of the fatty tissue containing the lymph nodes.

© Susan G. Komen Breast Cancer Foundation, breastcancerinfo.org

How many lymph nodes are removed during surgery?

You may talk to other patients and find that each of you had a different number of lymph nodes removed at the time of surgery. Some women have a few nodes removed and others have a dozen or more removed. This is normal. The lymph nodes are encased in the fatty tissue under the arm making it impossible to know the total number in the sample. Your surgeon does not plan to remove a specific number of nodes prior to the operation. The most important factor is the testing performed by pathologists on the nodes after they are removed.

A pathologist examines the lymph nodes under the microscope to see if cancer cells are present. Lymph nodes that do not have cancer cells are called negative nodes. Positive lymph nodes (cancer present) may mean that you need additional treatment. However, sometimes additional treatment may be recommended even if the lymph nodes are negative. Your surgeon will talk to you about your results and your treatment plan.

Lymph node removal can result in a swelling of the arm or trunk (called lymphedema) on the side of the body where you had surgery. (Information about lymphedema can be found on page 35).



Reconstructive surgery options after mastectomy

Restoring your body image and sense of balance after a mastectomy can be an important part of recovery. Some women undergo breast reconstructive surgery (operation to rebuild the breast's shape), while others choose to wear a prosthesis (a specially fitted breast form). Only you know what is best for you and what will make you feel most comfortable in dealing with emotional and physical changes from your surgery.

While reconstructive surgery does not treat cancer, it can restore the breast's appearance after mastectomy. However, it cannot restore sensations that are lost due to cut nerves along the chest. Most reconstruction is done at the time of mastectomy. It can also be delayed for weeks or even years later. Making a decision about reconstruction is an individual choice, and it is important to learn as much as you can about your options.

There are many procedures available that use either implants or your own body tissue to reconstruct your breast. A plastic surgeon will discuss the options that will give you the best cosmetic result for you. The reconstruction options will depend on the size of your breasts, the amount of tissue needed for the procedure, your preference, your smoking history, your past medical and surgical history or if you have had, or will need, radiation therapy. Your breast surgeon and plastic surgeon will individualize your surgical plan.

Before you undergo any procedure, you and your doctor will discuss the best option for you, including the risks, benefits, side effects, and procedures involved in completing this process.

Types of reconstructive surgery

Breast implants are saline or silicone-filled artificial forms that are inserted to create the look of a breast. Breast implants are commonly used with a tissue expander (a balloon-like implant filled with saline solution) for reconstruction. At the time of the mastectomy, the plastic surgeon will insert a partially filled expander beneath the chest muscle. In the weeks after surgery, the surgeon will inject additional saline solution through a tiny valve beneath the skin. The expander helps to stretch the skin to the size that is needed to have a permanent implant placed. The idea is similar to a pregnant woman's belly slowly stretching over the course of her pregnancy. Once you have healed or have completed treatment, the expander is removed and a permanent implant is inserted.

Tissue flaps are procedures that use tissue from your stomach or back instead of an artificial implant to reconstruct the breast. The tissue is transferred to the chest to create the breast. Surgery is performed on the breast and the area where the tissue is taken. This means a longer recovery time and a scar in each area.

Nipple and areola reconstruction is also an option when the nipple and surrounding area (called the areola complex) are removed at the time of the mastectomy. This type of procedure is usually done after the reconstructed breast has healed. Skin is taken from other areas to form the nipple. It is then tattooed to achieve the cosmetic result. Another option is to have a micropigmentation specialist create a natural, 3-D appearance for women who have not had nipple reconstruction. This can help to improve your physical and emotional recovery.



Breast Reconstruction, Information, and Resources

American Cancer Society:

<https://www.cancer.org/cancer/breast-cancer/reconstruction-surgery.html>

Reconstruction overview, types of reconstruction and pre- and post-operative care:

www.breastreconstruction.org.

Breast reconstruction at Virtua:

www.virtua.org/services/cancer-treatment/breast-reconstruction

FORCE

Facing Our Risk of Cancer Empowered:

<http://www.facingourrisk.org/get-support/index.php>



Preparing for surgery

All of the information you have received from your doctors, healthcare professionals, family and friends can be confusing and overwhelming at times. It is important that you understand and are well informed about your surgery, recovery time and treatment plan. Having all of your questions addressed and knowing what to expect can decrease some of your anxiety and concerns.

Sometimes it can be intimidating talking to the doctors. You may feel like you are “bothering” them, that they are “too busy” or even that your questions are silly. We want to reassure you that none of that is true. We are here to support you through this challenging time. Always feel free to call your doctors or nurses to ask any questions that you may have about the surgery, recovery time or care. Write down questions and call the office. This book should serve as a supplement to the conversations that you have with your healthcare team.

How is my surgery scheduled?

The staff in your surgeon’s office will make the arrangements for your upcoming operation. They will discuss with you all of the details of the surgery; including date, time, location, type of procedure, insurance information and pre-certification, and any tests that need to be done before surgery.

What type of tests do I need before surgery?

Prior to surgery, your doctor will order tests called Pre-Admission Testing (PATs). These tests are used to evaluate your current health, to “clear” you for surgery and to see if the cancer has spread beyond the breast. Blood tests, EKG and chest x-rays are

common tests for all surgical patients. For patients who are diagnosed with an invasive breast cancer, it is not uncommon to have a bone scan or other radiologic tests as part of your PATs.

What is a consent form?

Before surgery, you will be asked to read and sign a consent form. Signing the form means that you understand everything about the procedure, the risks, the benefits and all of your options. It is important that you read this form carefully and ask questions.

One technique that can help you to understand your treatment plan is to say to your doctor: “I have heard all the information you told me about the surgery. Now, I’m going to repeat this information back to you.” This will allow your surgeon to correct any misunderstandings or to clarify points that are confusing. Writing information down, reading education pamphlets or having a loved one with you to be an “extra set of listening ears” can also help you understand your treatment plan.



What happens the night before surgery?

The night before surgery, one of the hospital staff members will call you at home and tell you what time to arrive at the hospital. This time will be earlier than the actual start time of your surgery. This allows time for you and the staff to prepare for surgery.

Do I have to fast (not eat or drink) the night before?

Yes. You cannot have anything to eat or drink after midnight the night before surgery.

Do I take my usual medications the day of surgery?

You need to discuss medications with your doctor. You will be given specific instructions. It is important that you tell your doctor about each medication you take, even over-the-counter pills, such as aspirin, pain relievers, vitamin supplements and herbal medicines. Some medications and vitamins affect blood clotting or cause bleeding. These are usually stopped several days before surgery. If you are told to take any pills the morning of surgery, you may take a few sips of water to help swallow your pills.

Medication instructions:

What should I bring to the hospital?

Not every patient that has breast surgery needs to stay overnight in the hospital. If you are going to be admitted to the hospital, pack a light bag since your stay may be about one to two days. You will be sore after surgery and may have difficulty lifting your arm over your head. With that in mind, pack a shirt that buttons in the front and/or an over-sized sweatshirt. This will make it easier for you to dress the day you go home. You may find that a soft t-shirt, tank top or camisole will be more comfortable.

The hospital can provide you with toothpaste, a toothbrush, soap, a comb and slippers should you need them. If you prefer, bring your own favorite products (lotions, make-up). It is a good idea to leave your jewelry in the safety of your home. All jewelry is removed before your surgery.

Other items to bring to the hospital:

A loved one to support you	A calling card or cell phone for long distance calls
Insurance card, referrals and paperwork	Pen, note paper and magazines
Any written instructions from your doctor or the hospital	Any comfort items such as a photo, stuffed animal, book or religious item
This book	A few dollars for newspaper, candy or other items



The day of surgery

You should report to:

(Hospital department)

on (date) _____

at (time) _____

What can I expect to happen before my operation?

It is normal to be anxious and nervous before any procedure. Knowing what to anticipate the day of surgery will help decrease some of your concerns. Generally, you can expect the following to occur regardless of the type of surgery you will have or where it will take place (the hospital or the outpatient surgery center). Your nurse will review the specific plan with you on the day of surgery.

When it is time for your surgery, you will completely undress and put on a hospital gown. You will need to remove your jewelry, watch, personal items, eyeglasses, contacts, hearing aids and dentures. You can give them to a family member or your nurse will safely secure these items for you.

You may go to the operating room by stretcher, by wheelchair or by walking with your nurse. Your nurse will check your vital signs (temperature, pulse, respiration and blood pressure), check all of your surgery paperwork, review the surgical plan and answer any questions. You will meet with the anesthesiologist to discuss the medication that will be used during your operation. An intravenous (IV) line will be

started in your hand or arm to provide fluids and medications throughout the surgery.

The surgery will take about two to four hours depending on the type of procedure. Your surgeon will talk with your loved ones in the surgical waiting room while you are in the recovery room.

What can I expect to happen after my operation?

When you wake up from surgery, you will be in the recovery room. You will be drowsy and will probably feel cold. You will be covered with warm blankets. Your nurse will monitor you closely, checking your bandage and IV. You will feel the blood pressure cuff inflating several times. Your nurse will also keep you comfortable and give you medication for pain or nausea if needed. You will slowly wake up, but will probably be drowsy for the first few hours.

You will stay in recovery for one to two hours before you are brought to your hospital room. If you are not being admitted and are going home the same day, you will stay in this area until you are fully awake and you are discharged from the surgery center or hospital.

If you had a sentinel node biopsy and blue dye was used, your urine may be blue for about 24 hours. Although this can be alarming the first time you see it, this is normal. It is a sign that your body is eliminating the dye that was used in the procedure. Additionally, the skin under your arm and chest will be blue from the dye. This will go away in a few days or weeks.



Pain management/sensations

After your surgery, your doctor will prescribe pain medication. The pain or discomfort you experience will be in the breast and/or underarm area. You will also feel pain at the incision site. This is called incisional pain. In about 10 to 14 days, the incision pain will resolve as you heal.

You may also experience some numbness or tingling at the incision site. Some of the nerves on your chest may be cut or irritated during the procedure, which can cause these feelings. The nerves are the slowest part of your body to heal, so it takes time for the sensations to go away. Doing the exercises that you will be taught will help to relieve some of the sensations. Women who have a mastectomy will be permanently numb around their scar since it is necessary to cut the nerves during this operation.

Will I have pain if I have a mastectomy?

Some women have described that they feel pain, heaviness, twinges and tingling sensations or that the breast still feels present after a mastectomy. This is sometimes called phantom pain because you experience these feelings even though the breast has been removed. The brain perceives pain from the remaining nerves in your chest. It takes time for your brain and nerve pathways to sense what has happened to your body. This is normal and will go away in time.

Will I have pain in my arm?

If you had lymph nodes removed as part of your surgery, you will have discomfort in that arm. The pain or discomfort can go down your arm, or you may experience a pins and needles sensation. These are sometimes called referred sensations. The

discomfort will go away as you begin to heal and regain movement in your arm. It is not unusual to have numbness in the arm. The numbness usually improves in the coming months.

Will I be comfortable wearing a bra after surgery?

Women who have had a lumpectomy usually are more comfortable wearing a bra after surgery to support the remaining breast tissue and prevent movement. Following surgery, some women also sleep in a bra for a few days for extra support and comfort.

Mastectomy patients often find that a bra can irritate or rub their incision. Some women go braless and wear loose, soft cotton shirts until the incision heals. Other women choose to wear a tank top, camisole or sports bra for support and comfort – with or without a temporary breast form. A special bra and temporary prosthesis is available for women after having a mastectomy (see page 32 for more information). You can judge which option is most comfortable for you. Your incision should fully heal in about six weeks.

Should I wear a seatbelt after surgery?

Yes. Seatbelts can prevent serious and extensive injuries if you are involved in a car accident. On the ride home from the hospital and during your recovery, place a small pillow over your chest so that you can properly wear a seatbelt. The pillow will help reduce irritation from the seatbelt crossing at your incision site or the pressure from sudden stops.



Caring For Yourself after Surgery

Your surgeon will come see you before you are released from the hospital or outpatient surgery center. The type of surgery you have and the way you feel will impact when you go home. You may be discharged on the same day as your operation or within the following day or two.

Before you leave the hospital or surgery center, your nurse will explain to you and your family all of your care instructions. Your nurse will review with you how to care for yourself at home, when to call your physician and any follow-up instructions and prescriptions. Use this book to write down any information.

We realize that you may be intimidated and anxious about taking care of yourself, your incision and your surgical drain at home. You will see that it is a fairly easy and straightforward process. Call your surgeon's office if you have any questions about your care. Your doctor and nurse can also help arrange visits from a homecare nurse to support and assist you.

Call your surgeon . . .

If you have any of the following:

- Fever of 100.5°F or higher or shaking chills
- Increased pain, warmth, swelling, pus or redness at the incision site
- A discharge at the incision site that is thick, a yellowish/green color and/or has a foul odor
- Bleeding or drainage at the incision site



Incision care

Looking at your incision and breast for the first time after surgery can be difficult and upsetting. You may feel anxious or nervous to take the first look. This is a normal reaction. Some women choose to view it with their surgeon or nurse the day after surgery. Other women prefer to look at it in the privacy of their home with or without a loved one. You will know when the time is right for you. Looking at your incision will help you feel more comfortable with the changes to your body. Over time, the scar will fade. Aside from helping you adjust emotionally, it is important to view the site to make sure you are healing properly.

You will probably go home with a bandage or a dressing covering your incision. Your incision site will need basic care to prevent infection and to promote healing. You may notice some bruising and swelling at the site. This is temporary and will disappear slowly.

Depending on the procedure performed, your incision may only be covered by steri-strips (paper-like tape) and not a dressing. You should not remove the steri-strips from the incision. These will fall off over the next days or weeks. If the steri-strips become wet, pat them dry. You will be given specific instructions if you need to change your dressing at home. Your incision will not heal properly if a wet dressing remains over the site. Please refer to your surgeon's discharge instructions for incision care.

How to change your dressing

Refer to any specific instructions you were given by your surgeon regarding dressing changes. We recommend that you change your dressing in front of a mirror, perhaps in the bathroom, so that you can view the site and note any changes. Always wash your hands with soap and water before and after dressing changes.



Caring for your surgical drain(s)

A drain is inserted to collect fluid from the surgery site to reduce swelling and pain and to promote healing. The fluid that collects is a mixture of blood and lymphatic fluid. You may have more than one drain placed at the time of your surgery.

What is a drain?

A surgical drain has plastic tubing coming from the surgical site with a collection bulb at the other end (away from the skin). The tubing is stitched in place at the time of surgery so the drain will not fall out. The soft, flexible bulb collects the fluid that needs to be emptied each day. The compressed (deflated) bulb provides a gentle suction to the surgical wound.

What will the fluid look like?

The fluid is a mixture of blood cells and lymphatic fluid. As you heal, the amount of drainage will decrease and the color will change. At first, the drainage will be red (bloody). Then it will become pink-tinged. Finally, it will be a yellow, straw color. This is normal. However, if your drainage was yellow and you see that blood is reappearing, you should call your doctor immediately.

How much fluid will I need to empty from the drain?

Some women have a large amount of fluid and other women have a small amount. Neither the amount of fluid, nor the amount of time the drains are in place, has anything to do with your surgery. There is no way to predict how much fluid you will drain or when the drains will be removed. The drainage amount will decrease as you begin to heal.

How do I secure the drain?

It is important to prevent the drains from hanging loosely. Your nurse will show you how to keep your drains secured to your undergarments. You should empty your drains so they don't become heavy. Pressure from the heavy drain or a drain not secured to your clothing can cause pain and discomfort at the surgical site.

Call your surgeon

if you have any of the following:

- You attempted to clear the tubing and the drain tubing remains clogged or is not draining any fluid (instructions on next page)
- Fever of 100.5°F or higher, shaking chills
- Cough, chest pain or shortness of breath
- Increased pain, warmth, swelling, pus or redness at the incision site
- A discharge at the incision site around the tubing that is thick, a yellowish/green color and/or has a foul odor
- Bleeding
- Abnormal change in the drainage color (if the fluid was yellow colored and now blood is reappearing).



How do I empty the drain(s)?

You will need to empty your drain at least three times a day. You should empty the drain if it becomes full or heavy. As you heal, you will see that you have less drainage and the color will change.

How do I empty the drains?	What if the drain is clogged and it is not draining any fluid?
<ol style="list-style-type: none"> 1. Gather all of your supplies: measuring cup, drainage record sheet and pen. 2. Wash your hands with soap and water. 3. Remove the drain tube from your clothing so that you can empty the bulb. 4. Holding the bulb firmly with one hand, use your other hand to remove the plug. Do not touch the opening or inside of the cap. 5. Tip the bulb to the side and pour the fluid into the measuring cup. 6. Measure and write down the date, time, amount and color of the fluid in the cup on the drain record sheet on the next page. 7. Observe the site and color of the drainage. It is normal for the fluid to change color while the drain is in place. Initially the fluid will be red, then pink-tinged. A few days after surgery, the drainage will be a yellow, straw-like color. 8. Once the drain is empty, squeeze the bulb flat with one hand while replacing the plug with the other hand. The bulb should be compressed (deflated) when you replace the plug. 9. Secure the drain to your clothing so it is not hanging and pulling at the incision site. Always keep your drain below the level of the armpit. 10. Empty the measuring cup, flush the contents down the toilet and rinse out the cup. Wash your hands and repeat this process if you have a second drain. 	<p>Sometimes a clot in the drain tubing prevents fluid from entering the bulb. This is not unusual. If you see a clot or notice that little or no fluid is draining, follow these instructions:</p> <ol style="list-style-type: none"> 1. Wash your hands. Remove the drain tube from your clothing. 2. Gently squeeze the area to dislodge the clot in the tubing. The clot will drain into the bulb through gravity. 3. Gently “milk” the tubing starting at the insertion site (closest to the skin) working your way down the entire length of the tubing to the end at the drain bulb. You can use an alcohol swipe to slide down the tubing toward the drain. Repeat several times to clear the tubing. <p>Do not milk the tubing in the reverse order (bulb to skin).</p> <ol style="list-style-type: none"> 4. Secure the drains to your clothing. Check the bulb to make sure the fluid is draining. Check frequently and call your doctor for instructions if you notice that the bulb is empty or is still clogged.



Drain Record Sheet: Please measure and observe the color of the drainage from the bulbs each time you empty your drain. Write down the amount of the drainage on this sheet.

Remember: Bring this sheet with you to your post-op office visit with your surgeon(s).

DATE	TIME	DRAIN 1	DRAIN 2	DRAIN 3	DRAIN 4	DRAIN 5	DRAIN 6
Example 12/1/19	9am	40	40	30	35	45	50
	noon	40	40	50	44	45	50
	7pm	50	42	43	41	35	50
24 Hour Total		130	122	123	110	125	150
24 Hour Total							
24 Hour Total							
24 Hour Total							
24 Hour Total							



24 Hour Total							
DATE	TIME	DRAIN 1	DRAIN 2	DRAIN 3	DRAIN 4	DRAIN 5	DRAIN 6
24 Hour Total							
24 Hour Total							
24 Hour Total							
24 Hour Total							
24 Hour Total							
24 Hour Total							
24 Hour Total							



When will the drain be removed?

The drain can remain in place for approximately two weeks after surgery. Neither the amount of fluid, nor the amount of time the drains are in place, has anything to do with your surgery. There is no way to predict how much fluid you will drain or when the drains will be removed. The drainage amount will decrease as you begin to heal.

Generally, drains will be removed when the amount of fluid draining is less than 30 cc from each bulb for 2 consecutive days. Please complete the drain record sheet so that you and your doctor can monitor the amount of drainage. You may be instructed to call the doctor's office with the amount of fluid that has drained. If the amount has decreased enough, you will be given an appointment to have the drain removed.

Your surgeon removes the drains during an office visit. Women sometimes report moderate pain and discomfort for a few seconds when the drain is removed. You will feel a "pulling" sensation when the drain is taken out.

Some women take a dose of their pain medication approximately one hour before their doctor's appointment to help reduce the discomfort. Remember that if you take pain medication, you should have someone drive you to and from your appointment.

A small bandage is placed over the drain site. You will need to continue to monitor the site for signs and symptoms of infection (fever, redness, swelling, discharge, pain, warmth or bleeding) and call your doctor with any problems.

What is a seroma?

Once the drain is removed, fluid may build up underneath the skin. It will look puffy, swollen and may be uncomfortable. This accumulation of fluid is called a seroma. If this happens, it does not mean that something is wrong with your surgery. It means you need more time to heal.

A seroma can become painful if it increases in size because the fluid puts pressure on the incision site. Your surgeon may need to aspirate (use a needle to remove the collecting fluid) to relieve the pressure and pain. This is not a painful procedure and many patients feel more comfortable afterwards. Remember, if you have any pain or swelling at the site, call your doctor.

Returning to normal activities

In the days following surgery, you may have some swelling in your affected arm (same side of the surgery). This swelling is normal and temporary. This swelling is different than lymphedema. It will slowly disappear as you heal over the next six to twelve weeks.

General guidelines to help reduce some of the swelling after surgery:

- DO NOT LIFT anything over eight pounds until your doctor tells you.
- Use your affected arm (side you had surgery) arm for eating, bathing or dressing.
- Elevate your arm on pillows. Your arm should be above the level of your heart.
- Follow the exercises that your doctor, nurse or therapist gives you to do.



Do I need to follow special precautions for my arm?

Yes, if you had lymph nodes removed under your arm. Women who have been treated for breast cancer may be at risk for lymphedema (swelling of the hand, arm and trunk after removal of lymph nodes). Not all women develop this condition, but all women need to learn about arm care and early signs of lymphedema. We encourage you to follow the guidelines on page 34 throughout your life to help lower your risk of lymphedema.

Do I need to perform arm exercises?

The goal of daily arm exercises after breast surgery is to help regain strength and range of motion in your arm and shoulder. Exercises will help ease the tension in this area. Your physician, physical/occupational therapist or nurse will review specific exercises with you. Your physician or therapist will instruct you on the type and when to begin. It is important to begin to use your arm and shoulder quickly. Special exercises may be suggested if you have had breast reconstruction or lymphedema.

Start exercises slowly and progress gradually. You will feel some pulling sensations as you stretch, but you should not push yourself to pain. Continue to stretch and exercise each day trying to move a little further so that you recover full range of motion. Everyone heals, tolerates exercises and regains range of motion at a different rate.

When can I take a shower?

Your breast surgeon will provide you with discharge instructions, including details regarding when you are permitted to shower. Use a mild soap to clean your chest. General instructions include the following: when bathing, gently pat the chest area to clean, but don't rub. It's okay if the steri-

strips get wet; just pat them dry with a towel. Do not be afraid to touch and clean your incision. You will not hurt anything. It is important to keep the area clean and dry. You can begin using the arm on your affected side to shampoo your hair when your surgeon tells you and when you are able to raise your arm over your head. In the meantime, use your unaffected arm (not the side of surgery) to pour a cup of water over your head or have someone help you wash your hair.

When can I wear deodorant?

It will take time for your incision to heal after surgery. Avoid shaving or having deodorant, powder, lotions or perfumes come into contact with the incision site for at least four to six weeks. Once your incision is completely healed, your surgeon will tell you when you can begin using these products and when you can shave with an electric razor. However, you should not shave under your arm while you are receiving radiation therapy.

When can I drive a car?

Your physician will let you know at your postoperative visit when you can drive a car. Generally, you can drive a car when you have full range of motion and function in your arm.

When can I wear a prosthesis after a mastectomy?

Restoring your body image and a sense of balance after breast surgery can be an important part of your recovery. A breast prosthesis is a form molded as a breast that is worn inside your bra or bathing suit. Some women prefer to use a temporary prosthesis, which is a soft form, after their surgery. When the incision is healed in approximately six weeks, a permanent prosthesis can be worn. Others choose to wear loose clothing. Some women never wear a prosthesis – temporary or permanent.



Some women choose breast reconstruction immediately while others wait. Other women use the prosthesis until their reconstruction is complete.

This is a personal decision. Only you know what is best for you, what will make you feel most comfortable, and what will assist you in coping with the emotional and physical changes from surgery. Remember this is your decision (see page 74 for more information).

When can I resume my activities?

Once again, it is important to remember that everyone is different. We all heal and recover at our own rate. Your incision will be sore for a few days, and you will have a drain/drains in place for about one to two weeks. You should be able to resume most of your activities and arm movement within two to three weeks. Your surgeon will monitor your progress throughout your recovery period and will give you permission to exercise, use your arm for lifting packages/bags or items over five pounds or drive. Go easy on yourself and give yourself time to heal.

Can I go on temporary disability?

Some women, particularly women who will be receiving chemotherapy, choose to utilize their temporary disability benefits. To learn about your options, coverage and the extent of your leave, please talk to your human resource (HR) department at work. The HR specialists will discuss the program as well as provide you with all of the necessary forms to start receiving benefits.

When can I return to work?

Recovery time is different for each individual. Your return to work will depend on the extent of your surgery, your healing and the type of work you do. Discuss with your surgeon the expected time of your recovery and the nature of your work (does

it require heavy lifting or physical demands). Take the time that you need to make a full recovery.

What if I am having trouble regaining my strength and range of motion?

Some women struggle with regaining arm function due to pain and weakness after their surgery. A consult with one of our skilled physical or occupational therapists may be appropriate to address these deficits. Talk to your doctor or nurse navigator to help set up an evaluation.



Arm Care after Surgery

Lymphedema

Women who have been treated for breast cancer may be at risk for lymphedema (a buildup of fluids normally found throughout the body). Not all women develop this condition, but all women need to learn about arm care and the signs of lymphedema. We encourage you to follow these guidelines to help lower your risk of developing lymphedema.

What is lymphedema?

The production of increased lymphatic fluid is normal after any surgery or injury (such as a wrist fracture or sprained ankle). This is part of the body's natural healing process and to be expected. It only becomes an issue when normal flow of this fluid becomes limited due to changes in the tissues on the surgical side. This buildup of fluid is called lymphedema. It can develop shortly after breast surgery, or months to years later.

It is important to know that not everyone will develop lymphedema. There are steps that you can take to minimize your risk for its development (listed on page 36). Should you develop lymphedema, there is specialized therapy that treats and deals with the ongoing management of the symptoms.

What are the signs and symptoms of lymphedema?

Lymphedema can occur months or even years after your surgery. It is important for you to know what to look for and what to do. Look for the following signs:

- Swelling or puffiness in your hand or arm on the side of your surgery
- Swelling in the breast, trunk or axilla
- Tightness or impression left on your arm when clothing sleeves, rings or wristwatch are removed
- Heaviness or discomfort
- Difficulty moving or stretching your arm
- Signs of infection, including warmth, redness, pain, or increased swelling

Please note that if you develop any of the above symptoms, it is important (as your own advocate) to notify your doctor.

What is cording?

Cording is a condition that occasionally occurs following breast surgery where the lymph system is compromised. It presents as a tight feeling in the upper arm when the arm is raised up and away from the side. It usually occurs between six and eight weeks after surgery, but can occur intermittently months or years afterwards. Often a tight band can also be seen or felt in the armpit or down the upper arm. This is not lymphedema, but rather a congestion of a lymph transport channel that can become hard, inflamed and painful. A consult with a certified lymphedema therapist can help to ease the tightness and regain arm function.



What can be done if I develop lymphedema?

When lymphedema is left untreated, the outcome is often disabling and painful. However, therapy, education and support are available at the Penn Medicine Virtua Cancer Program.

An evaluation by your physician is the first step. Your doctor can confirm that you have this condition and that you do not have another problem (such as an infection). Your doctor will give you a prescription to begin therapy. Virtua has physical and occupational therapists on staff who are trained and certified in lymphedema management. This treatment program is covered by most health insurance plans. Check with your insurance company to discuss your specific coverage.

Where can I receive lymphedema treatment?

www.virtua.org/services/physical-therapy-rehabilitation

Certified therapists specially trained in this technique are available in the Virtua Health Outpatient Rehabilitation Centers located in Westampton, Moorestown, Voorhees and Washington Twp. Most major insurances are accepted. The staff will be more than happy to assist you and explain your coverage.

Please call 1-855-847-8821 for more information.

What is involved in the treatment of lymphedema?

Rehabilitation for lymphedema can include:

- Patient education on self-care, treatment and how to minimize lymphedema
- Compression bandaging
- Manual lymphatic drainage (specialized massage to increase lymph flow and decrease swelling)
- A tailored exercise program
- Transition to long term use of a compression garment

Now that treatment for my breast cancer is over.

- Do you want your strength and energy back?
- Do you have questions about changes in your upper body caused by cancer treatment?
- Do you want to learn more about lymphedema risk reduction and control?
- Do you do things differently with your upper body than you did before your cancer?
-

Learn more about the Strength After Breast Cancer program on Page 57



Guide to arm care

Avoid cuts, scratches and irritation

- Use an electric razor for shaving underarms.
- Avoid cutting cuticles when manicuring hands.
- Wear heavy gloves and long sleeves when gardening.
- Use rubber gloves for cleaning and washing dishes.
- Always use a thimble to avoid pinpricks when sewing.

Avoid burns

- Be sure your hand and arm are well-protected with a mitt when reaching into a hot oven. Elbow length oven mitts are recommended.
- Be careful when using appliances such as irons, frying pans and curling irons.
- Avoid excessive exposure to the sun. Prevent sunburn by using protective sunscreen of SPF 15 or higher.
- Avoid saunas and steam rooms.
- If you smoke, hold your cigarette in the unaffected hand.

Avoid wasps, bees and other insects

- Use insect repellent if you are going to be outdoors.
- Call the doctor if you are stung by a wasp or bee and notice swelling.

Avoid injections, blood draws or vaccinations in the affected arm

- Ask to have injections on the unaffected side (not the side of surgery).

Avoid binding or squeezing your arm

- Do not permit blood pressure to be taken on the affected arm.
- Wear loose sleeves and avoid tight clothes.
- Wear loose jewelry – bracelets, rings and watches.
- Check bra straps – there should be no indentation left on your shoulder.

Avoid straining your arm

- Do not carry heavy objects, such as luggage or grocery bags.
- Use your unaffected arm to carry your purse or packages.
- Sling the shoulder strap of your purse across your body, not over the affected shoulder.

When injury does occur

As careful as you may be, injuries can still occur. It is important to remember that good first aid skills will minimize the body's need to send large amounts of healing fluids to your arm.

- Keep topical wounds clean, dry and covered.
- Never break a blister.
- Take care of your skin - use a low ph level skin cream to keep it hydrated and resilient.
- In the event infection does occur, call your doctor's office for guidance and possible need for medication to enhance the healing process.



Treatment after Surgery

Treating breast cancer requires a team of oncology specialists because the care often includes surgery, radiation, drug therapy, nursing care, physical therapy and emotional support. Penn Medicine Virtua Cancer Program provides these components and additional services in a coordinated and supportive system.

Radiation therapy

Radiation therapy after surgery can decrease the chance of cancer returning in the breast, chest wall, or lymph node regions. In some cases, it can improve survival. Lumpectomy is generally followed by radiation therapy. The usual course of treatment involves treating the whole breast and sometimes nearby lymph nodes. During the last few days of treatment, additional treatment called a boost is often given to the area where the primary tumor was removed. Radiation therapy can also be delivered after a mastectomy depending on several factors, such as the size of the tumor, number of lymph nodes involved, and whether cancer cells are present at the edge of the surgical site.

What is radiation therapy?

During radiation therapy, high-energy x-rays are used to destroy cancer cells that may be present after surgery. A machine called a linear accelerator delivers the treatment to the area of interest. Extensive treatment planning takes place in order to deliver precise radiation therapy. This limits the amount of normal tissue that will be affected by radiation.

Physicians who treat cancer using radiation therapy are called Radiation Oncologists. Radiation therapy is usually given in an

outpatient center. At the Penn Medicine|Virtua Cancer Program, patients undergoing radiation therapy have access to many cancer support services and programs, as well as a team of oncology specialists to help address any needs.

How long does it take to get radiation treatments?

The typical radiation therapy schedule is five days a week (Monday through Friday) for three to seven weeks depending on the type of surgery you had, as well as other factors. You may be asking why you have to go five days a week. Simply put, the total radiation dose is divided so that you can safely receive smaller doses daily. To get the full benefit of radiation therapy, you need to complete all of the scheduled treatments.

You will meet with your doctor to discuss your treatment in detail. After your initial consultation with the doctor to learn about your treatment options and radiation therapy, you will return to the center for a simulation or planning session to map out the area to treat. This involves a CT scan for treatment planning. It will take about one hour for this appointment. It will set you up in the intended treatment position and mark the area to be radiated.

A therapist will use permanent ink to place medical markings or tattoos on your skin (dots). These marks guide the therapist to accurately position you for treatment daily in order to deliver precise radiation.

Do not remove or wash any of the ink markings that the therapist placed on your skin unless specifically instructed otherwise. Do not use lotion, soap, perfume, powder or deodorant directly on the skin of the treatment area. These can irritate your skin and/or interfere with treatment.



After your simulation appointment, your subsequent treatment visits are about fifteen minutes each day. You will be in the department approximately thirty minutes each day. The treatments are painless during delivery. They do not make you radioactive or present danger to your family or friends.

What can I expect when receiving radiation treatment?

When you arrive at the center for your daily treatment, you will change into a patient gown. You will then be brought into the treatment room where you will be positioned in the same treatment position at the time of your simulation. You will be asked to remain very still. You will be alone in the room, but a therapist will be right outside of the room to monitor you closely through a video monitor. A microphone and speaker will allow you and your therapist to speak while you are in the room receiving treatment.

You may put deodorant, powder or other products on the unaffected side (side not receiving radiation therapy) during your treatment course. You can use cornstarch or talcum-free powder under your arm and under the fold of your affected breast to absorb moisture and reduce friction/irritation of the skin. You can use deodorant on the affected side until your skin gets irritated after which you should hold off from using it. Some patients carry these products and apply them while in the dressing room prior to leaving the facility.

What are the side effects of radiation therapy?

The most common side effects are tiredness and skin changes. Radiation therapy to the breast does not cause hair loss, nausea, vomiting or diarrhea. About halfway through the treatment course you may feel tired and experience some fatigue.

During your treatment, it is important to get proper rest. Many women continue to work during treatment. You may need to alter your schedule or routine around your treatment time.

During treatment, your skin may be itchy, dry, heavy or sore. It may also turn red (like sunburn), peel, darken or develop a shine. Color changes (such as redness and darkening) will begin to fade about a month after treatment is complete. However, in some women it can take several months for their skin color to return to normal. Some skin discoloration, tanning or thickening may be permanent.

Many of these side effects can be managed with medication. You will learn about side-effect management and the proper use of skin care products approved by your doctor. Please ask your doctor or nurse so that they can help you. Your doctor or nurse will evaluate your skin weekly and will review skin-care instructions.

Some side effects can happen months to years after treatment is completed. They can include breast firmness or shrinkage, skin changes or thickness, ribcage tenderness, lung scarring, and swelling in the arm called lymphedema. Heart injury and second cancers can also occur but are rare. Please talk to your doctor as risk is different for each patient.



Just like any medical treatment or procedure, before you begin radiation therapy you will learn about the treatment plan, side effects and when and how the therapy will be given each day. Your team of doctors, nurses and therapists will monitor you closely during treatment. If you have any questions or concerns, always contact the radiation facility and someone will be able to assist you.

What is Accelerated Partial Breast Irradiation?

- **Accelerated partial breast irradiation (APBI)** is a treatment method that may be used in patients with early stage breast cancer who are candidates for breast conservation therapy (BCT). It is a system that delivers radiation directly to the area where the cancerous tissue was removed. Traditional radiation therapy treats the whole breast while partial breast irradiation delivers radiation only to the area where the cancer was removed.
- There are two forms of APBI. Breast brachytherapy can be used for partial breast irradiation. At Virtua, the MammoSite™ and SAVI devices are currently being used. This is a three-step process. First, the device (a small, soft balloon attached to a thin tube or a bundle of 7-10 catheters) is placed into the cavity of the breast. Then, the radiation treatment is planned. Finally, the treatment is given. A small, radioactive seed is guided into the catheter or balloon and left there for a few minutes to deliver treatment. The treatments are delivered twice daily for five days. No radiation remains in your body between treatments so you will not expose those around you to any radiation. This treatment is done on an outpatient basis.
- 3D conformal radiation therapy is another method of APBI. This is similar to whole breast radiation therapy but instead delivers precise radiation to the cancerous tissue removed in the breast. Treatment is delivered by a linear accelerator and given twice daily over a period of five days.
- Ongoing research suggests that treating the cancerous part of the breast that was removed is safe and effective. Please ask your doctor if you are a candidate for partial breast irradiation.

During your treatment

As with any type of radiation therapy, you may experience redness, bruising or breast pain. Drainage from the insertion site is also common and will decrease over time. Your doctor may prescribe an antibiotic while the catheter is in place to prevent infection. You will be closely monitored throughout your treatment.

Skin care guidelines to follow during radiation treatment:

- Do not use deodorant under your arm on the treatment side especially once your skin becomes irritated. You can use cornstarch or talcum-free powder under your arm or breast fold (lower part of your breast) to absorb moisture and prevent friction/irritation of the skin.
- Do not shave under your affected arm. You can carefully trim the hair under your arm with an electric razor if needed. During and after treatment, underarm hair typically grows sparsely and more slowly, making shaving less necessary.
- Do not use soap directly on the treatment area. Instead, wash with lukewarm



water and pat dry. Do not wash or rub off treatment markings.

- Wear loose-fitting, soft, cotton clothing that will not rub or irritate your skin. Some women may experience a “heaviness” or soreness in the treated breast and prefer not to wear a bra or other restrictive undergarment. If you need to wear a bra, choose soft, cotton, loose-fitting undergarments (not underwire bras) that will not irritate your skin.
- Do not expose the treatment area to direct sunlight. Once treatment is complete, you will need to use sunscreen with a sun protection factor (SPF) of 50 or higher for the rest of your life. You should apply sunscreen to all exposed skin – not just the area where you received radiation therapy.
- Do not go swimming (pools, ocean) until your doctor advises you that your skin is healed and able to be exposed to these types of elements (chlorine, chemicals, salt).
- Ask questions and review side effect management with your team of radiation specialists.

For more information about radiation therapy, call the Cancer Information Service at 1-800-4-CANCER and request the following booklets: *Radiation Therapy and You* and *Understanding Breast Cancer Treatment: A Guide for Patients*.



Chemotherapy and Hormonal Therapy

There are many implications that go along with a diagnosis of breast cancer. The patient and her team of physicians need to address the best form of localized care (management of the involved breast itself, as well as adjacent lymph nodes) which typically includes surgery with or without radiation therapy. They also must address the possibility that microscopic breast cancer cells may spread (metastasize) to other parts of the body before a diagnosis of breast cancer is made.

As tumors develop in the breast, growing from a single microscopic cell to a tumor comprised of millions of cells, it is possible that microscopic breast cancer cells invade the blood vessel supply of the involved breast. If in fact blood vessel invasion has occurred, those microscopic tumor cells can then travel to distant sites within a patient's body to include the bone, lung, liver, etc. Though it is important at the time of diagnosis of breast cancer for the patient to get a chest x-ray, bone scan and baseline blood work, these tests do not have the ability to detect single microscopic cells which may have left the breast and established themselves elsewhere. Once a diagnosis of breast cancer has been established, it is important that the patient meets with a medical oncologist.

A medical oncologist will discuss with the patient the potential that the tumor may have spread. Many factors are considered by a medical oncologist when determining the risk that a tumor has spread prior to its diagnosis and removal. Once a patient and the medical oncologist have discussed what the individual risk is, a specific medical treatment plan can be devised to destroy any cells that may have spread to other sites within the body. It is always important to

remember that if such distant or scattered microscopic tumor cells are not destroyed by medication, it is highly likely that they will continue to grow, and it is likely the cancer cells will reappear in the years to come.

There are a number of different medical and systemic options available to patients. These methods of treating the entire body include chemotherapy, hormonal therapy and biologic therapy in the form of monoclonal antibodies. A specific treatment plan is designed for each patient based on her risk factors for recurrence, characteristics of her tumor, other health-related issues, age and her own wishes.

The recommendations and guidelines currently available to guide the medical oncologist and the patient in choosing the right treatment for breast cancer are based on thirty-plus years of well-designed clinical trials conducted throughout the world. These clinical trials have defined specific drug combinations to use, as well as how much medication to give, how the drug should be given (pills or intravenously), and how long the therapy should last. Many times, a combination of chemotherapy, hormonal therapy and even biological therapy, may be used in a given patient.

Chemotherapy

Chemotherapy is the use of medications to destroy growing cells, a hallmark of cancer. The drugs are usually given by IV. Often a combination of chemotherapy drugs will be administered as clinical trials have demonstrated that combination chemotherapy is more effective than the administration of a single chemotherapy medication. Usually, chemotherapy is administered in the outpatient setting, (in a medical oncologist's office.) Chemotherapy is administered intravenously by an oncology nurse (specialty trained cancer nurse) certified in the administration of such medications. Different chemotherapy drugs



have different potential side effects. When a medical oncologist consults with their patients, the reason for the use of chemotherapy is discussed, as well as the potential side effects. Over the past thirty years, improved chemotherapy has become available and side effects are less likely to occur.

Hormonal Therapy

A large percentage of breast cancers are referred to as hormone receptor positive. A hormone receptor positive tumor means that the breast cancer cells have a receptor inside of them that responds to estrogen or progesterone. Just like an appliance needs electricity to run, these tumors need estrogen or progesterone to grow. For tumors thought to be hormone receptor positive, it is known that estrogen in a patient's blood may cause hidden cancer cells in other parts of the body to grow. Hormonal therapy is giving oral medications for at least five years. These will either interfere with estrogen's ability to stimulate breast cancer cells to grow or decrease estrogen production, which in turn helps to keep the cancer cells from growing. A number of hormonal agents/anti-estrogen medications are available and the medical oncologist is trained to decide which medication is most appropriate and safe for a given patient. As stated above, many times, though not always, hormonal therapy and chemotherapy may be recommended to the same patient.

Targeted Immunotherapy

In 1998, the United States Food and Drug Administration approved a drug called Herceptin to treat a type of breast cancer that is HER-2 positive. More recently, clinical trials have demonstrated that in certain groups of individuals with early stage breast cancer, Herceptin may be another possible way to attack distant or systemic microscopic breast cancer cells that have not responded to the effects of chemotherapy or hormonal therapy. Herceptin is not the right

treatment for all patients or all tumors. Herceptin is only considered as a possible treatment in those breast cancer cells which are shown to be HER-2 positive. Approximately 15 to 25% of breast cancer cells are labeled as being HER-2 positive. Based on information available from several clinical trials, Herceptin, when used, is given along with chemotherapy, and with or without hormonal therapy.

The best way to manage a patient's breast cancer is by working with a multidisciplinary team of physicians which include a surgical oncologist, a radiation oncologist and a medical oncologist. Though it is important that the physicians work closely as a team, each physician will use their special skills and training to help the patient who has been given a diagnosis of breast cancer.

What financial resources are available for patients who do not have a prescription plan?

Some pharmaceutical companies have special programs for financial assistance. Your doctor, nurse or social worker can assist you with accessing these resources. Major pharmaceutical companies have a hotline to provide information and financial help to patients that cannot afford medications. Assistance is limited and patients need to qualify for this program. For more information, call the Pharmaceutical Manufacturers Patient Assistance Program (800) 762-4636.



Clinical trials

www.virtua.org/services/clinical-trials

Your doctor may offer you the opportunity to take part in a breast cancer treatment clinical trial as part of your overall treatment plan. Clinical trials are another treatment option available to patients. Clinical trials have been responsible for many advances in breast cancer treatment, such as lumpectomy and various chemotherapy regimens. Every successful treatment used today started as a clinical trial.

What is a clinical trial?

Clinical trials are carefully controlled research studies that test new treatments in patients. These studies test the safety and potential benefits of new medications, new approaches to surgery or radiation therapy, and new combinations of treatments. The goal of this research is to find better ways to treat cancer and help cancer patients. Federal rules ensure that clinical trials are safe and ethical.

To ensure patient safety and the quality of the research study, clinical trials must follow a strict plan called a protocol. The protocol explains what is being studied, the treatment plan and the reason for the study.

Before enrolling in any clinical trial, all patients must read and sign an informed consent form. This form describes, in detail, what is involved in participating in a clinical trial. The consent form contains information about the medication treatment plan and possible side effects, along with the risks and benefits of the study. You are encouraged to read this form carefully and go over it with your doctor. If there are

parts you do not understand, ask your doctor to clarify the information.

Remember that participation in a clinical trial is voluntary. You do not have to enter the study and you can leave the study at any time if you feel that it is no longer in your best interest to participate.

Does the Penn Medicine Virtua Cancer Program offer clinical trials?

Yes, our program participates in many national cancer institute sponsored treatment and cancer prevention studies. Clinical trials take place at cancer centers, hospitals and doctors' offices all over the country. Your physician will determine if a study is available for you and discuss that treatment plan with you and your family. A clinical research coordinator is always available to explain the clinical trial and works with your doctor to follow you closely throughout the course of your treatment and beyond to ensure the integrity of protocol.

If I am offered a clinical trial as part of my treatment plan, do I have to go on the study?

No, participation in a clinical trial is voluntary. If you decline to participate, you will receive the standard care for breast cancer. Standard care is treatment that has gone through years of clinical trial study and is approved for breast cancer treatment. Some patients worry that their doctor or healthcare team will treat them differently or are upset with them because they said "no" to taking part in a clinical trial, but this is not true. Whether you have standard treatment or go through a clinical trial, you will receive the best possible care.



This chart can be used to keep track of your weight as well as any symptoms you experience. Enter the date in the first box and your weight in the second box, and place a mark (x) in the box that corresponds to any symptoms you are having that day. Be sure to record your temperature if the doctor has you taking that daily.

My Symptom Record

Date											
Weight											
Temperature											
Shaking/Chills											
Mouth Sores											
Rash											
Diarrhea											
Constipation											
Nausea											
Vomiting											
Loss of Appetite											
Numbness in Hands/Fingers											
Numbness in Feet/Toes											
Notes for my health care provider:											



Care and Treatment



My Breast Care Team

Specialty	Name	Contact Information
Surgeon		
Breast Care Nurse Navigator		
Medical Oncologist		
Radiation Oncologist		
Plastic Surgeon		
Primary Care Doctor/ Nurse Practitioner		
Oncology Clinical Social Worker		
Genetics Nurse or Counselor		
Clinical Trial Nurse Coordinator		
Home Care Agency		
Oncology Dietician		
Outpatient Rehabilitation Services		
Other		



My Treatment Plan

My type of cancer: _____ Stage of my cancer: _____

Diagnostic tests I am going to need:

1. _____
2. _____
3. _____
4. _____

Clinical Trial Information (if I am participating):

My Surgery Plan

My Surgeon: _____

Name of my surgery: _____

Date of next visit with surgeon: _____

Date of my surgery: _____

Other doctors (if any) to see before my surgery: _____



Question to assist you when you are talking to your surgeon:

Diagnosis

- What are my biopsy results?
- What kind of breast cancer do I have?
- What is the stage of my cancer and how does it affect my treatment options and prognosis?
- Is it invasive? Has it spread to my lymph nodes or internal organs? What tests will you do to see if it has spread?
- Will you recommend a breast cancer specialist for a second opinion?
- Could my cancer be hereditary? Are my family members at risk?

Treatment

- What are my treatment choices and what is best for me? What do you recommend for me and why?
- Are there any clinical trials available to me?
- What are the expected benefits and risks of each kind of treatment?
- What are the chances my cancer will come back with each of the treatment programs?
- Is there anything I should do to get ready for treatment?
- Do I need to follow a special diet?
- Will I be able to have children after my treatment?

- Will I go through menopause as a result of the treatment?
- Will I have normal sensation in my breasts after my treatment?
- Are there new treatments being studied and would they be appropriate for me?

Surgery

- Are there different kinds of surgeries that I can consider?
- Which operation do you recommend for me?
- Do I need my lymph nodes removed? How many? Why?
- How long will the surgery take?
- Where will the scars be? What will they look like?
- How will I feel after the operation?
- How long will I be in the hospital?
- If I want to have plastic surgery to rebuild my breast, how and when can that be done?
- How effective will breast reconstruction surgery be if I need or want it?
- Will you recommend a plastic surgeon for me?
- If I choose not to have reconstructive surgery, are there special bras and prostheses that I can get and where do I find them?



Questions to assist you when you are talking to your reconstructive/plastic surgeon:

NOTES:

Reconstructive (Plastic) Surgery

- What are my options for reconstruction?
- How many operations will it take to reconstruct my breast?
- How will the breast look and feel?
- What is the recovery period after reconstruction?
- Will I be able to feel any possible new lumps after this surgery?
- Does insurance pay for reconstruction?

Recovery

- How is my pain going to be managed?
- Will special care be required for my incision?
- Will I need special bras?
- Are there any activities I will not be able to do while I am healing?
- Do I have to any special exercises?
- When will I be able to get back to my normal activities?



My Radiation Therapy Plan

My radiation oncologist:

Date of my next visit:

Date of my simulation:

Date I will start radiation therapy:

Number of treatments I will need:

Expected date of my last treatment:

Questions to assist you when you are talking to your radiation oncologist:

Radiation

- Why do I need this treatment?
- What are the risks and side effects?
- What happens during the treatment and how long does it last?
- When will the treatments begin and end?
How many times will I have to have radiation therapy?
- Are there any clinical trials available to me?

- Is there anything special I have to do to take care of myself during therapy?
- Can I continue my normal activities?

NOTES:



My Chemotherapy Plan

My medical oncologist:

Name(s) of my chemotherapy drug(s):

Date of my chemotherapy education:

Date I will start chemotherapy:

Number of treatments I am expected

to have: _____

How often my treatments will occur:

Expected date of my last treatment:

Questions to assist you when you are talking to your medical oncologist:

Chemotherapy

- Why do I need this treatment?
- How soon after surgery will I start chemotherapy?
- What drugs will I be taking? How are they given?
- Are there any clinical trials available to me?
- How often will I require treatment?
- What are the risks and side effects?
- How do I manage the side effects?
- Will I be able to work and do normal activities during the treatments?
- Will I be able to drive myself to and from treatments?
- Will I need hormone therapy?

Questions to assist you in learning more about hormonal therapy:

- What is difference between chemotherapy and hormone therapy?
- How long will I be on this treatment?
- Will hormones cause long-term effects?



Questions to assist you in learning more about clinical trials:

NOTES:

Clinical Trials

- What is the purpose of the study?
- Are there any clinical trials available to me?
- Why should I consider a clinical trial over a standard treatment?
- Will being in a clinical trial require more time than other treatments?
- Does it cost anything to participate in the study? Will any of the treatment be free?
- How long will the study last?



My Medication Record

It is very important to have an up-to-date list of all the medications that you are taking during your treatment. The following chart will help you to keep track of all your medications and will be at your fingertips when a health care provider asks what medications you are taking. Whenever you start taking a new medication or stop taking a medicine make note of it on this chart.

Medication	Dose/How Much	How Often	Prescribed by	Started on	Stopped on
Reason for taking this medicine:					
Pharmacy name & phone that I used to fill this prescription:					

Medication	Dose/How Much	How Often	Prescribed by	Started on	Stopped on
Reason for taking this medicine:					
Pharmacy name & phone that I used to fill this prescription:					

Medication	Dose/How Much	How Often	Prescribed by	Started on	Stopped on
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My Medication Record

Medication	Dose/How Much	How Often	Prescribed by	Started on	Stopped on
Reason for taking this medicine:					
Pharmacy name & phone that I used to fill this prescription:					

Medication	Dose/How Much	How Often	Prescribed by	Started on	Stopped on
Reason for taking this medicine:					
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Medication	Dose/How Much	How Often	Prescribed by	Started on	Stopped on
Reason for taking this medicine:					
Pharmacy name & phone that I used to fill this prescription:					

Medication	Dose/How Much	How Often	Prescribed by	Started on	Stopped on
Reason for taking this medicine:					
Pharmacy name & phone that I used to fill this prescription:					

Medication	Dose/How Much	How Often	Prescribed by	Started on	Stopped on
Reason for taking this medicine:					
Pharmacy name & phone that I used to fill this prescription:					



My Appointment Record

This section will help you keep track of your appointments by providing a place to record appointment details and any notes that you need to make when talking with your healthcare providers at those appointments.

Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				



My Appointment Record

Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				
Day	Date	Time	Phone Number	Place
M Tu W Th F Sa Su				
<i>Notes:</i>				



Strength After Breast Cancer Program



Strength After Breast Cancer (SABC)

Virtua's Strength After Breast Cancer Program (SABC) was developed at The University of Pennsylvania and based on the Physical Activity and Lymphedema Trial called PAL. Patients enrolled in the SABC program have an opportunity to work with a team of cancer-certified fitness trainers at Virtua's Centers for Health Fitness, as well as certified lymphedema therapists.

The goal of Virtua's Strength After Breast Cancer program is to provide our patients with education regarding side effects of breast cancer treatment and ways to identify these side effects. With early intervention, increased awareness and exercise, you can take a proactive approach towards healing.

Functional Status

During your cancer journey, you may have to undergo various forms of treatment designed to destroy cancer cells. Although life-saving, these medical interventions can often result in side effects that impact your daily level of function.

Some common questions asked are:

- What are the side effects?
- How often do they occur?
- When are they likely to occur?

For lymphedema, we will further discuss:

- How to identify subclinical lymphedema symptoms
- How to reduce your risk of getting lymphedema
- The best way to manage and treat your stage of lymphedema

As you go through this educational section, we will help you to identify these side effects, seek appropriate treatment, and support you as you re-establish an independent level of functioning.

Upper Body Symptoms

After surgery, chemotherapy and/or radiation, you may experience some upper body symptoms. These can include:

- Difficulty moving your arm, shoulder or trunk due to tightness at or around your incision.
- **Axillary cording** which can occur when lymphatic vessels are stuck in healing scar tissue and form tight guitar string-like cords that limit arm movement.
- Numbness, tingling, burning or other sensations in your arm, shoulder, and/or trunk
- Mild swelling as your body is healing from the surgery or radiation therapy
- Weakness in your arm, shoulder, and/or trunk

Lymphedema

Who is at risk for developing lymphedema?

Any patient that has had the following:

- Removal of lymph nodes under the arm or breast area
- Radiation localized to under the arm or breast area
- Infections and seromas after surgery
- Necessary disruption to lymphatic tissue
- Patients who are overweight



What is lymphedema?

- Lymphedema is an abnormal accumulation of protein-rich fluid in the tissue, which can result in swelling of a body part.
- It only impacts the region of the body affected by lymph node removal/damage. For example, upper body lymphedema can occur on the specific side of the body that had lymph nodes removed.

Why is the lymphatic system important?

- In conjunction with the liver, the lymphatic system removes and filters debris and foreign material from your body (e.g. bacteria, viruses, cancer cells).
- It balances fluid and proteins in the circulatory system by transporting approximately two liters of lymph fluid per day.
- It helps to protect the body from infection.

Symptoms of lymphedema

Symptoms may present gradually or have a sudden onset following trauma to the involved side of the body. This sudden onset can include limb swelling, redness, heaviness, or tightness on the affected side and can be brought on by infection, burns, or other acute injuries. Onset of lymphedema may occur soon after cancer treatment or many years later due to injury or age-related decline. For this reason, it is important to be aware of any subclinical symptoms you may experience. These symptoms on the affected side may include:

- Numbness
- Tingling
- Achiness
- Fatigue

- Heaviness
- Tenderness in the elbow
- “Pain of congestion” – feeling full

How to reduce your risk of developing lymphedema:

- Attend medical check-ups for surveillance & reporting changes
- Monitor and take care of your skin on the affected side
- Practice a healthy lifestyle, including exercise and appropriate nutrition to maintain proper body weight
- Avoid extremes in temperature
- Avoid limb constriction from jewelry or tight clothing
- Treat arm infections promptly and avoid trauma
- Avoid manicures

How to treat lymphedema:

Lymphedema should be evaluated and treated by a Certified Lymphedema Therapist. Based on the severity or stage of your lymphedema your therapist will come up with an appropriate plan that may include the following:

- Monitor the size of your extremity by taking arm measurements.
- Provide you with manual lymphatic drainage to help facilitate better lymphatic flow.
- Provide you with arm bandaging to help reduce arm swelling.
- Help you to choose the right kind of compression garment to help keep the swelling down.



- Educate you to be an active participant in the long-term management of your lymphedema.
- Help you to choose the right type of fitness program that can decrease your risk of a lymphedema flare-up.

Muscle Aches and Neuropathy

Experiencing muscle aches and nerve pain at various times during or after your surgery/treatment is to be expected. There are several factors that can influence these symptoms:

- Post-surgical healing
- Pain related to chemotherapy
- Pain related to radiation

Following surgery, you may experience stiffness and general aches related directly to your body's automatic response to guard and protect your surgical incisions. Over time, this posturing, as well as self-limitations in movement, can cause pain and soreness.

Pain and other symptoms related to chemotherapy and radiation are dependent upon type, dose, duration, and the schedule of your treatment. These may include:

- Joint aches
- Muscle spasms
- Tingling
- Numbness
- Sensation as if you are wearing gloves or socks
- Skin damage

Bone Health

Certain types of chemotherapy may cause deficiencies in bone health. These include partial estrogen agonist and aromatase inhibitors.

These types of therapies, combined with other risk factors including inactivity, use of corticosteroids and inadequate intake of calcium and vitamin D, can contribute to decreased bone density.

Heart Effects

Personal behavioral risks, as well as exposure to some forms of chemotherapy/radiation, may increase risk of developing heart disease. Risk factors include age, body mass index, diet, physical activity levels, smoking, and elevated cholesterol and blood lipids.

Weight Gain

It is common to experience weight gain during your cancer treatment. The extent of change in body weight is influenced by:

- Treatment type
- Menopausal or pre-menopausal status at diagnosis
- Activity level
- Nutrition

Exercise and proper nutrition are an important part of your overall health and journey towards healing.



Fatigue

During treatment for breast cancer, the level and duration of fatigue can vary. Studies show that exercise programs, specifically aerobic exercise, is the number one recommended non-pharmacologic treatment for cancer-related fatigue.

How do I get started with the Strength After Breast Cancer Program?

Now that you have read the educational section and completed your cancer treatment, you are eligible for the SABC free screening.

What will you gain from the free SABC screening?

- An assessment by a Certified Lymphedema Therapist
- Recommendations for appropriate follow-up care
- Entry into the SABC fitness program which includes:
- A fitness assessment and program designed by cancer-certified fitness trainers
- Follow-up screenings by a Certified Lymphedema Therapist
- Physical or occupational therapy evaluation and treatment
- Follow-up with your physician

For entry into the Strength After Breast Cancer program (beginning with a free screening by a Certified Lymphedema Therapist), please call the Virtua Access Center:

855-847-8821

Be sure to tell the navigator that you have read the strength after breast cancer educational material and that you would like to schedule a free Strength After Breast Cancer Screening at Virtua Physical Therapy and Rehabilitation.



Emotional Recovery



The Emotional Side of Cancer

A diagnosis of cancer typically brings with it an array of emotions that can include fear, anger, sadness, depression, anxiety and others. You may ask yourself, “Why is this happening to me?” or “Can this really be true?”

At the same time, family and friends are experiencing many of the same kinds of feelings and wondering how they can help. You may all find it difficult to know how to talk with one another about the diagnosis. This is not unusual. The following are some tips to help you and your family deal with the emotions you are experiencing.

Tips to Help you Cope with Your Diagnosis:

- Keep yourself informed. Fear of the unknown can cause you needless worry and anxiety.
 - Write down your questions and concerns and share them with your care team.
 - Learn about your disease and treatment options.
 - Seek out reliable sources of information (not everything on the Internet is accurate). Ask your care team for help finding trustworthy resources.
- Spend time with family and friends and allow them to help you.
- Get the support you need:
 - Talk with trusted family members and/or friends
 - Participate in a support group
 - Seek out a professional counselor if you feel that would be helpful
- Try to maintain balance in your life. As much as possible, stick to doing the things that you typically do every day as

this may help to relieve some of the negative feelings that come with a cancer diagnosis.

- When you are feeling up to it, try to do some physical exercise. This may help relieve some of your symptoms. It is believed that with exercise, the body releases chemicals that affect mood, pain, perception and feelings of fatigue.
- Engage in activities that will help lift your spirits such as light, funny books and movies.

Tips to Help Children Cope with Your Diagnosis:

- Engage in an age-appropriate discussion with your child regarding your diagnosis and treatment.
- Assure your child that it is okay for them to be sad, upset, or angry, and help them to discuss their feelings.
- If your child is worried about sharing their thoughts with you because of your cancer, help them find another trusted adult who is available to talk with them when they need someone. Some possibilities are grandparents, aunts/uncles, minister/rabbi, teacher/counselor, neighbor, psychologist or social worker.
- Keep your child’s school informed of any changes in your household that may affect behavior. The school is often the first to observe changes in the child’s demeanor and behavior.
- Emphasize and maintain routine for your child as much as possible.
- Camp Oasis – a day of fun, support, and education for children and teens with loved ones who have cancer.

<https://foundation.vitua.org/camp-oasis>



Tips to Help Family and Friends Help You:

- Let them know that it is okay to visit and that you welcome their company. Be sure to tell them when it is okay to visit and when it is not, prepare them that you may tire easily and have to cut their visit short.
 - Ask them to listen when you need to talk about your illness.
 - Ask them to talk about things other than your illness.
 - Tell them that it is okay to laugh and to cry with you.
 - Allow them to pray for you and share their faith if you are comfortable with that.

- When someone offers help – say YES! Tell them what you need and how they can help:
 - Bring you a meal (in disposable containers - no clean-up or dishes to return).
 - Watch your children so you can go to medical appointments, rest, spend time alone or with other loved ones, or just to give the kids a break from you.
 - Invite your family to do things.
 - Come stay with you so your family can feel comfortable going out.
 - Drive you to your medical appointments.
 - Do some of your household chores or run an errand for you.
 - Bring over books, movies, music and a positive attitude that will lift your spirits.

The emotions associated with breast cancer include anger, loss of control, fear of recurrence, and issues of self-image, intimacy and sexuality. Expressing these emotions to your loved ones, friends, spiritual leaders and healthcare team can help with emotional recovery. Individual counseling and/or support groups for cancer survivors can also help. Virtua offers an array of programs to help you and your family cope and heal, including various Support Groups and Spiritual Support Counseling. We also can refer you to other support programs in the community.

The time from initial diagnosis to the start of treatment can be difficult for you. You want to start fighting the disease, but you have to wait. You and your spouse (or significant other) are trying to navigate through all of the appointments, decisions and information. Loved ones and friends are calling daily for an update on your health, asking how you are doing and how they can help. You wonder: Should I tell my children? Should I call the school and tell my child's teacher? What about work? Should I call my boss and share this information with co-workers? These are common reactions and concerns. Being honest and truthful is the best answer.

“Either you run the day...
or the day runs you”
Jim Rohn



Why would I need to see a social worker?

A clinical social worker can help you identify and address your concerns and provide a safe place for you to talk freely about how your cancer diagnosis and treatment have impacted your life and the lives of your loved ones. Our licensed clinical social workers can help you identify and utilize your own support network, which can be family, friends, religious leaders, co-workers or members of your healthcare team and even help you “find the words” to tell your children, loved ones and friends.

Social workers can help you to access a number of resources for emotional support, including booklets and pamphlets that address coping topics as well as materials for children, teenagers, and loved ones. Social workers can also help you to address practical concerns by providing referrals to community and national cancer resources, insurance information resources, and resources for wigs and prostheses.

Are support groups helpful?

Support groups are not meetings where you cry, tell your breast cancer story and go home. A support group offers an opportunity to meet with other women who are dealing with the same issues as you. You learn that you are not alone and that many things that you are feeling are normal. Some patients who were initially reluctant to attend a support group often discover it was helpful to meet other women in a similar situation. Still other patients never attend a support group. It is a personal choice and only you know what will be most helpful for you and your situation.

Do you offer support groups or classes?

The Penn Medicine Virtua Cancer Program sponsors and hosts several support groups and classes to meet the emotional and educational needs of patients. Many of our doctors, nurses, chaplains and social workers facilitate or participate as speakers for these groups.

Some support groups have speakers discuss a specific topic relevant to breast cancer patients, such as lymphedema, managing side effects and talking to children about cancer.

Free, professionally facilitated support groups are available for women living with breast cancer. The groups offer an opportunity to learn from survivors and health professionals and to share concerns and triumphs.

The time, location and date of each group can change throughout the year due to holidays or weather. Always call 1-888-Virtua-3 to get a current list of dates, locations, topics and times.

A list of support programs in our community can be found on the next page.



Support groups

www.virtua.org/ClassesEvents

The Penn Medicine Virtua Cancer Program is committed to helping patients and their families manage the lifestyle issues that accompany a life with cancer. Services range from nutritional counseling and fatigue management to special support groups. Programs are led by trained professionals and offer an opportunity to learn ways of coping with uncertainty and change as well as approaches to care. They also provide a chance to meet others who face similar issues.

For more information about the programs listed including dates, times and locations, call 1-888-Virtua-3 (1-888-847-8823).

Breast Cancer Support & Education Group

This women-only support group focuses on women who are newly diagnosed or in active treatment for breast cancer. The group offers an opportunity to learn from survivors and healthcare professionals and to share concerns and triumphs. The group is professionally facilitated by a licensed oncology social worker and meets the 4th Tuesday of every month from 6:00-7:00pm at the Samson Cancer Center, Conference Room A, 350 Young Avenue, Moorestown. No group is held in December.

Cancer Survivors Support Group

This support group focuses on cancer patients who have completed active treatment and are learning to live life as cancer survivors. This group offers an opportunity to discover how your life has changed after cancer and embrace your “new normal.” The group is professionally facilitated by an Oncology Chaplain and meets the 4th Tuesday of every month from 6:00-7:00 pm at the Samson Cancer Center, Conference Room B, 350 Young Avenue, Moorestown. No group is held in December.

Reach to Recovery

In addition to receiving support from your family and healthcare team, you may find it helpful before surgery or treatment to talk to someone that has been through a similar experience. Reach to Recovery is a support program sponsored by the American Cancer Society. In this program, newly diagnosed patients are matched with specially trained survivors who are approximately the same age and who have undergone similar treatments for breast cancer. The staff at Virtua can refer you to this program or you can request this service by calling the American Cancer Society directly at 800-ACS-2345.



Cancer Fitness

www.virtuafitness.org

Whether you are undergoing cancer treatment or have completed it, exercise plays an important role in improving both emotional and physical health. It helps you to become stronger, less tired and enjoy a better quality of life.

For more information and to make an appointment, call the location of your choice: Moorestown Center for Health and Fitness at 856-291-880 or William G. Rohrer Center for Health and Fitness at 856-325-5300. There is a fee for this program.

Survivorship Services

Lung Wellness Programs

www.virtua.org/services/lung-wellness-program

Smoking Cessation Education

Smokers trying to kick the habit learn how to better manage stress, develop new routines, and change behaviors during this free three-session support group overseen by a trained tobacco treatment specialist. Call 1-888-VIRTUA-3 for class dates, times and location or discuss other programs or resources with your Nurse Navigator.

Lung Cancer Screening

Current and former smokers reduce by twenty percent their chances of dying from lung cancer when they are screened for tumors. X-ray images from a low-dose CT scan can detect tumors early, improving the effectiveness of treatment. Please call 1-856-247-7393 to discuss eligibility and appointments.

LifeCare/Survivorship Program

www.virtua.org/services/palliative-medicine

Breast Cancer can limit your quality of life. **LifeCare** can restore it. **LifeCare** concentrates on relieving your symptoms. These services compliment, rather than replace, your medical treatment plan. Virtua and Samaritan Healthcare have partnered to provide this unique service. **LifeCare** physicians and staff provide the following services:

- Pain management
- Relief from symptoms such as depression, anxiety, stress, fatigue, shortness of breath, loss of appetite, mobility, and balance
- Counseling support, including social work and pastoral care
- Guidance with complex treatment choices
- Shaping personal goals of care
- Facilitation of advance care planning
- Medical decision support



Frequently Asked Questions

What is Palliative Care?

Palliative care is different from hospice. Palliative care can be provided along with your active breast cancer treatment and can be provided at any stage of your illness. Hospice care is provided when you are no longer receiving active treatment for your cancer.

Will my insurance cover palliative care?

Most insurance plans cover all or part of palliative care, just as with other hospital and medical services. This is also true of Medicare and Medicaid.

Can I have curative treatment together with palliative care, such as chemotherapy and radiation?

Yes, absolutely. Your treatment choices are up to you. You can have palliative care at the same time as treatment meant to cure you.

Who else, besides the patient, can benefit?

Patients, as well as family caregivers, are the special focus of palliative care. Your doctors and nurses benefit too because they know they are meeting your needs by providing care and treatment that reduces your suffering and improves your quality of life.

How can I schedule an appointment?

To schedule an appointment in Mt. Holly or Voorhees call 856-264-9953.

Nutrition

www.virtua.org/services/medical-nutrition-therapy

Eating well as you go through your cancer treatments enhances outcomes and quality of life. Both the illness and the treatment will probably affect your appetite, but eating nourishing choices will help you to obtain the nutrients your body needs to deal with the treatments, fight infection and get you on the road to recovery.

Everyone responds differently to cancer and cancer treatments. You may need extra calories and protein as you go through treatment in order to maintain your weight and fight the disease. Plan on keeping some nutritious, high-protein snacks around that are easy to prepare and will help you get the extra calories you need. You might also try eating small, frequent meals instead of the usual three meals a day. Eat larger meals when you feel hungry, but do not wait for dinner if that is not the time that you feel hungry. Stock up on foods you like and can tolerate so that you will have things on hand when you feel like eating. Drink most of your fluids between and not at meals so you will not feel too full to eat.

Be sure and talk with someone on your healthcare team before using vitamins, herbal products or other supplements. Some of these products are not safe and may even interfere with your treatments. Even over-the-counter vitamins and minerals can be harmful or may reduce the effectiveness of your treatments.



Treatments and Nutrition

Side Effects

- Feeling overly tired
- Arm (and sometimes leg) swelling
- Food may taste funny
- Feeling full even if you haven't eaten
- Feeling sick after treatment
- Diarrhea
- Constipation
- Mouth sores

Individualized counseling is available with a registered dietitian (RD) specially trained in developing meal plans for cancer patients. They will provide patients with meal plans that incorporate food preferences, help counteract physical reactions to treatments and develop strategies to achieve nutrition goals. Nutrition services are provided at no cost to patients in our Radiation Oncology locations. For others requesting nutritional services, please contact your provider to see if these services are covered. A fee-for-service discount may apply if you do not have insurance coverage. Call 1-888-Virtua-3 for additional information.



Spiritual Care

Spiritual help can be a source of strength for many people, particularly those facing challenges. Many patients acknowledge that a diagnosis of cancer can create a spiritual crisis for them. Some patients find themselves questioning God or another higher being to explain why they were diagnosed with cancer. Others may turn away from their faith because they feel it has deserted them. Yet, some patients find that their faith and beliefs are a great comfort and source of inspiration during this time. Some return to previous habits of prayer or meditation or attend religious services. Some even turn to these practices for the first time.

To help each patient and family interested in finding spiritual and emotional strength during a time of crisis, the Penn Medicine Virtua Cancer Program provides a resource for spiritual power. You may contact Marian Mitchell, Spiritual Support Counselor at 609-321-0234.

The pastoral care department offers the following services to patients, their families and visitors of all faiths:

- Visitation (spiritual support and, if desired, prayer) from chaplains and trained volunteers (chaplain aides, Eucharistic ministers, clergy and volunteers) upon request
- Referrals to congregation, spiritual leaders or other support services
- Devotional resources such as Bibles and prayer books

- Non-denominational chapels for patients, family members and visitors (chapels are open 24 hours a day)
- Various non-denominational prayer services throughout the year
- Memorial services and bereavement support for patients and their families
- Communion for Roman Catholic patients daily upon request (The pastoral care department can assist in arranging the Sacraments of Reconciliation, Anointing of the Sick or Communion of the Dying)
- Visits from a Rabbi upon request

The experience of cancer is different for each patient. There is no right or wrong feeling, thought or action when it comes to spiritual care.

Can I access these services even if I am not religious?

Yes. Spirituality and religion are two very different concepts and terms. Religion typically refers to an organized belief system, whereas spirituality is your experience or your connection to your beliefs. If you have a spiritual or religious network in place, we hope that you turn to this resource for support. We will gladly assist you in any way possible. For those patients who may not have such a resource, we encourage you to access our pastoral care department. Please remember that we offer interventions that are for individuals of all backgrounds, faiths and beliefs.

Due to patient confidentiality, you will not automatically receive visits from pastoral care volunteers, faith leaders or clergy. Please ask your nurse to arrange for a visit if you are interested. If you have a spiritual or



religious network in place, you are welcome to call them and make them aware of your admission (hospital, room number, phone number and anticipated length of stay).

How do I access pastoral care at each Virtua facility?

The easiest way to access this resource is to simply call the director of the program at each facility. The numbers are listed below:

Virtua Memorial Mt. Holly
(609) 914-6365

Virtua Berlin
(856) 322-3100

Virtua Marlton
(856) 355-6662

Virtua Voorhees
(856) 247-2729

Marian Mitchell
Outpatient Spiritual Support Counselor
Oncology Services
609-321-0234

For more information about spiritual care, call the Cancer Information Service at 1-800-4-CANCER and request the following publication:

Taking Time: Support for People with Cancer and the People Who Care About Them.

“Faith is being sure of what we hope for and certain of what we cannot see”
Hebrews 11:1



Coping with the Physical Changes

A diagnosis of breast cancer changes many things in your life, including your body image, self-esteem, sexuality and intimacy. It is important to recognize these issues, to learn techniques to help you cope, and to maintain open communication with your partner throughout your experience. We also encourage you to share your feelings with your healthcare provider. They can offer you resources (counseling, education programs, support groups and booklets) to help you cope with these changes. Some patients find it helpful to talk to a breast cancer survivor. Your team can help arrange this for you.

How do I cope with the changes to my body?

Breast cancer treatment can result in many physical changes: loss of a breast, loss of hair, scars on the body, weight changes and skin changes. All of these can affect how you view yourself and your self-esteem. There is no easy answer to help you accept all of the changes that are happening to you. However, learning about each one and ways to cope can help. Not every suggestion will work for every person. In time, you will find ways that work for you. There are no right or wrong answers. Remember that there is more to you than the outward appearance that you show to the world. Learning to accept the new you is an important step in recovery.

General guidelines to help you cope with body image changes:

- Go easy on yourself. It takes time to adjust to your new body.
- Look at yourself and the changes that have happened to your body. Viewing and touching your body and sharing your feelings can help you feel more comfortable in time. Learn to view them as necessary marks toward healing, recovery and a new life.
- You can explore options for breast reconstruction or wearing a prosthesis to help achieve a sense of balance or wholeness. Please refer to pages 19 and 78 for more information about these options.
- You can explore options for wearing a wig, turban, scarf or head wear to help hide your hair loss. Please refer to page 81 for more information about hair loss and wig information.
- Talk about your concerns and feelings with your partner, your healthcare team or even a breast cancer survivor.



Permanent prosthesis after mastectomy

About six weeks or longer after surgery, when your incision is well healed and comfortable to the touch, you can be fitted for a permanent prosthesis. These breast forms are durable, feel natural, replace the weight of your breast and look natural in form-fitting clothing and swim suits. A permanent form can be made of various gels, foam rubber or even silicone. They will feel rubbery and may be soft and pliable or firmer to the touch. They are weighted to prevent your bra from riding up your chest and to provide a balance between the left and right side of your chest. They also can help your posture by balancing your chest and shoulder.

Permanent prostheses come in a variety of sizes, shapes, weights and skin tones. Working with an experienced prosthesis fitter is important when selecting the best option for you. The fitter will teach you how to care for your prosthesis and how to sew a breast form pocket into your existing bras. Specialty bras and bathing suits with a prosthesis pocket can be purchased at local stores specializing in breast prosthesis (see page 74) or through catalogs. Be sure to ask the fitter about these items.

Where can I purchase a prosthesis?

Many boutiques and department stores specialize in post-mastectomy prostheses and bras. Call ahead and make an appointment for a private fitting. Allow adequate time to be measured, to try on various styles and to ask questions.

Generally, a fitting will take one to two hours. Wear or bring a well-fitted garment. This will allow the fitter to see your contours and select the appropriate prosthesis. Bring a family member or close

friend for emotional support and an honest opinion.

Remember that the key to a well-fitted form is a well-fitted bra. Your fitter will assist you in selecting bras or teaching you how to sew a pocket into your existing bras. However, you should not use bras that have an underwire in them.

General guidelines to prosthesis care:

- Hand wash the prosthesis with warm water and mild soap daily.
- Wash after swimming in pools or the ocean. Never use harsh detergents or chemicals to wash it. Dry your prosthesis with a towel. Never place it over direct heat or dry with a dryer.
- When you are not wearing the prosthesis, place it in the cradle box. The cradle helps protect the breast form and maintain its shape.
- Avoid puncture holes from pins, jewelry or animal claws.

Here is a partial list of local stores that carry prostheses, specialty bras and post-mastectomy bathing suits. This is not a complete list. Please call the American Cancer Society at (800) ACS-2345 for an up-to-date list. Also, check the Yellow Pages under “medical supply stores” or talk to other breast cancer survivors to learn of other resources.



Boutique

Schedule a by-appointment-only boutique visit in the Voorhees Health and Wellness building or Virtua's Samson Cancer Center. Designed to make you look and feel better after surgery, they offer custom fitted bras, breast prostheses, pocketed swimwear, camisoles and compression garments for the treatment and management of breast cancer, lymphedema, burns and venous insufficiency. For more information, call 856-247-7371.

Local stores specializing in breast prostheses and bras

Here is a partial list of local stores that carry breast prostheses and bras. This is not a complete list. Ask your nurse navigator or talk to other breast cancer survivors to learn of other resources.

The Bra and Girdle Factory
1900 Rt. 70
Lakewood, NJ 08701
(732) 477-2227

Komfort and Kare
424 N. White Horse Pike
Magnolia, NJ 08049
(856) 854-3100

Mt. Holly Surgical Supplies
36 High St.
Mt Holly, NJ 08060
(609) 267-0221

A Personal Touch Boutique
Virtua Center for Health and Wellness or
Virtua's Samson Cancer Center
856-552-3887

Ribbons With Hope/MedEast
3001 Irwin Rd. Suite E
Mt. Laurel, NJ 08054
(856) 829-2030

This list of vendors is not inclusive and is not an endorsement by Virtua.

“When you reach the end of
your rope, tie a knot in it
and hang on”
Thomas Edison



Does my insurance pay for a breast prosthesis?

Your health insurance company should pay for a breast prosthesis and two bras every one to two years. Call the member services department of your insurance company (the phone number should be on the back of your card or in your insurance handbook) to find out the specific coverage and reimbursement.

To be covered by insurance, you will need a prescription from your doctor for a breast prosthesis and bras. You may need to pay for the prosthesis and bras and submit the receipts for reimbursement to your insurance company. A representative from your insurance company will review the specific coverage and how you will be reimbursed. A breast prosthesis can range in price from \$150 to \$450.

Another reimbursement option is to contact the Internal Revenue Service (IRS) to find out if your prosthesis and bras are a tax-deductible medical expense.

How can I get a prosthesis if I don't have insurance or can't afford one?

Manufacturers and breast cancer survivors often donate new or “gently used” prostheses that are clean and in mint condition. Selection may be limited by availability. The following organizations offer a free prosthesis and a fitting for patients in need or discuss with your nurse navigator for additional resources.

Pink Heart Funds

<https://pinkheartfunds.org/>
228-575-8299

Breast Cancer Resource Center

<https://www.ywcaprinceton.org/programs/breast-cancer-resource-center/fitting-boutique/>

Micropigmentation Specialist/Tattooing

After breast reconstructive surgery, many breast cancer survivors choose to have nipple reconstruction, including nipple tattooing. 3D nipple tattooing creates the illusion of a protruding nipple. For many breast cancer survivors, this option helps provide emotional and physical recovery after breast cancer. Nipple tattooing is performed by a micropigmentation specialist who is board certified by the American Academy of Micropigmentation and a member of the Society of Permanent Cosmetics.

Penn Medicine Virtua Cancer Program now offers a micropigmentation specialist to perform nipple tattooing at Virtua Plastic and Reconstructive Surgery in Marlton. For more information, call 856-355-7137.



Wig information

Many chemotherapy drugs used to treat breast cancer can cause hair loss, also called alopecia. As discussed earlier, chemotherapy not only attacks cancer cells, but it also attacks some healthy cells. This can result in hair thinning, complete scalp hair loss and/or loss of body hair (facial, arm, pubic and leg). It is normal to be upset about losing your hair. This does not make you a vain person. Hair loss not only changes your appearance and body image, but it is an outward reminder that you are receiving treatment.

You may have heard or read about wearing a scalp tourniquet, “cold cap” or shower cap of ice during chemotherapy administration to prevent chemotherapy from reaching scalp and causing hair loss. Please discuss this with your oncologist or nurse.

The extent of hair loss varies with each patient and depends on the type of chemotherapy. Generally, hair loss can begin about seven to ten days after your first treatment. You will notice an increase in hair loss (greater than you normally see) in your hairbrush, shower drain and even bed linens. Some patients state that they have had scalp sensations (pulling, tingling or tenderness) just before their hair began to fall out. Again, it is normal to be upset, depressed or even angry about hair loss.

It is important to remember that although hair loss is upsetting, this is a temporary side effect to treatment. Once you have completed chemotherapy treatments, your hair will grow back. Hair grows back about an eighth to a half of an inch each month. Many times your hair will grow back a different texture, very fine and often curly. Not every patient chooses to wear a wig or turban. It is a personal decision. However, scalp care is important regardless of your

choice. You lose a large amount of body heat from your head, so you need to protect it. In cold weather, wear a hat, scarf, turban or wig. In warm or sunny weather, keep your head covered and wear sunscreen (at least SPF 15) to prevent skin damage.

General guidelines to help you adjust to and conceal hair loss:

- Cut your hair shorter before beginning treatment.
- Go shopping for a wig prior to losing your hair. This will help the stylist match your natural color and style. It can also be comforting to some women to have their wig when hair loss occurs.
- The RCCA Hair Boutique is located in **Virtua’s Samson Cancer Center**, 350 Young Avenue in Moorestown. Services are donated by Rizzieri Salon are by appointment only on Mondays, Tuesdays and Wednesdays from 9:00 a.m. to 1:00 p.m. For appointments, please call **856-372-2222**.
- Wear hats, scarves and other head coverings. Experiment with different looks and accessories.
- It can be uncomfortable talking about hair loss and upsetting to go shopping for a wig. Bring a loved one or friend. It helps to go to a stylist or shop that has the sensitivity and experience of working with patients receiving chemotherapy. A list of such salons and stylists can be found on the next page.



Does my insurance pay for a wig?

Wigs vary greatly in price. Human hair wigs can be very expensive. Synthetic wigs are usually less expensive. Your health insurance company may pay for a wig due to hair loss from treatment. Call the member services department of your company (the phone number should be on the back of your card or in your insurance handbook) to find out the specific coverage and reimbursement.

To be covered by insurance, you will need a prescription from your doctor. Depending on your particular coverage, you may need to pay for the wig and submit the receipts and prescription to your insurance company for reimbursement. A representative from your insurance company will review the specific coverage and how you will be reimbursed. Another reimbursement option is to contact the Internal Revenue Service (IRS) to find out if your wig/hairpiece is a tax-deductible medical expense.



Salons, Wigs and Accessories

The RCCA Hair Boutique in **Virtua's
Samson Cancer Center**
(Services donated by **Rizzieri Salon**)
350 Young Avenue, Moorestown, NJ 08057
856-372-2222

American Cancer Society
"tlc" catalog
(800) 850-9445

Beaute' for Men and Women
Cherry Hill
(856) 667-0303

True Boutique
Berlin, NJ
(856) 767-8783

Martino Cartier Salon
Sewell, NJ 08080
(856) 582-6600

Not Just Wigs
Berlin Mart
Berlin, NJ
(856) 753-0777

Pitman Wig Boutique
Pitman, NJ
(609) 589-4443

Wig Service Shop
Cherry Hill, NJ
(856) 428-8448

Wig-A-Do
Moorestown, NJ
(609) 235-3534

Wigs by Barbra
Springfield, NJ
(973)-243-0440

Wig Splendor
Haddonfield, NJ
(856) 429-0911
877-4RW-WIGS

*This list of vendors is not inclusive and is
not an endorsement by Virtua.*

"No matter how you feel,
get up, dress up, and show
up for life!"
Regina Brett



Sexuality and intimacy

Adjusting to a diagnosis of breast cancer takes time. It not only affects you physically, emotionally and spiritually, but can also affect you sexually. Side effects from medications, physical changes from surgery or treatment and your emotions can all impact your sense of self, your relationships, your desires and level of intimacy.

Of all treatments for breast cancer, chemotherapy can have the most effect on sexuality. Fatigue, nausea and hair loss can affect your desire or interest in intimacy. While undergoing chemotherapy or hormonal therapy, it is very important for you to use birth control. Both therapies can cause birth defects in a growing fetus, particularly in the first trimester. Please talk to your physician about birth control.

Chemotherapy can also cause a “medical menopause.” This may cause menstruating women to stop their periods during treatment. After completion of therapy, some women’s regular periods may resume a few months later and some women may experience permanent menopause. Yet, other women continue to have regular periods during chemotherapy. The side effects of medications and the body’s response to them vary from patient to patient. Your doctor and healthcare team cannot predict what you will experience, but they will inform you about potential side effects. In general, women over age 40 are less likely to resume normal menstrual cycles.

The sudden onset of menopause can cause hot flashes, vaginal dryness and pain with intercourse. Your healthcare team can provide you with some strategies to help alleviate some of these side effects. Sleeping in a cool room, using fans, taking

vitamin E or dressing in lightweight clothing can help with hot flashes. Use of water-based lubricants can help with vaginal dryness and discomfort with intercourse.

Sexuality and intimacy can often be a difficult or embarrassing topic to discuss with your partner or healthcare providers. However, many of the issues can be treated. You can also learn methods to cope with each concern. We encourage you to discuss these issues with your healthcare team and your partner. Talking to other breast cancer survivors or attending support groups can help as well. If you are in need of additional resources or support please contact your Oncology Social Worker or Nurse Navigator.

Some ideas for dealing with sexuality issues that may occur during your cancer treatment:

- Plan for your intimate moments if possible by:
 - Taking something for pain one-half to one hour prior to any sexual activity
 - ‘Schedule’ intimacy at times when you are well-rested
- Look for new ways to enjoy intimacy with your partner such as:
- Light touch or massage
- Focus on the parts of your body that do feel pleasure (neck, ears)
- Try different positions
- Spend more time becoming aroused
- Be patient and communicate well with one another about your needs, desires and feelings



Follow-up Care

Soon after you complete treatment, your doctor or nurse navigator will provide you with a Survivorship Care Plan. A Survivorship Care Plan contains a summary of your treatment and recommendations for follow-up care and a healthy life style.

Once you have completed your treatment, your doctors will continue a follow-up care program. The purpose of this is to monitor your healing and emotional recovery and watch for health changes. Once you have had breast cancer, you are at a more increased risk of developing cancer than someone who has never had cancer. You will have doctor appointments, periodic blood work and x-rays, along with yearly mammograms. If you had a total mastectomy, mammograms are no longer indicated. Your doctor will discuss the specifics of your follow-up plan (frequency of appointments, tests).

You should continue to see your family physician or internist for general care and for health problems, other than breast-related. You should also continue to see your gynecologist on an annual basis.

Coping between office visits

For many patients, the time in-between and after treatment can be anxiety provoking and somewhat scary. Completion of treatment marks a new beginning in your life. It can also feel like the end of the constant support and care you received from your healthcare providers. You were watched so closely during treatment and now it will be three months until your next appointment. It seems like such a long time.

With everything you have been through – surgery and treatment – this is a normal

concern and fear. You may find yourself questioning each headache or bruise, thinking something is wrong. Over time, the concerns will decrease. It may help to talk to other breast cancer survivors and learn how they coped with “living between visits.” The best way to reassure yourself and to have some peace of mind is to call your doctor and discuss your concerns. Do not wait for your next scheduled visit.

Mammograms and breast exams

Will I need to continue having mammograms and breast exams?

Your doctor will tell you when and how often to have a mammogram. If you had a total mastectomy on one breast you will still need a mammogram on the unaffected breast. At the time of your mammogram, the technician may take more x-rays than in the past. Do not be concerned. This is normal after breast cancer treatment. Your doctor will tell you when you will need to have tests and examinations and will continue to perform clinical breast examinations as part of your routine follow-up appointment.

Do I have to do monthly breast self-examination (BSE)?

Examining your breasts monthly should continue and become part of your health routine. Your breast will feel different. This is normal since breast cancer treatment causes changes to the breast tissue and skin. With the help of your doctor and some practice, you will learn what your breasts feel like – what is normal for you. Generally, you should start performing BSE after your incisions have completely healed



and you are no longer undergoing radiation therapy.

If you are still menstruating, perform BSE about five to seven days after the start of your period each month. If you no longer have a period or if you are experiencing irregular periods, pick one day of the month to examine your breasts. Stick to that day each month. Marking a calendar may help remind you.

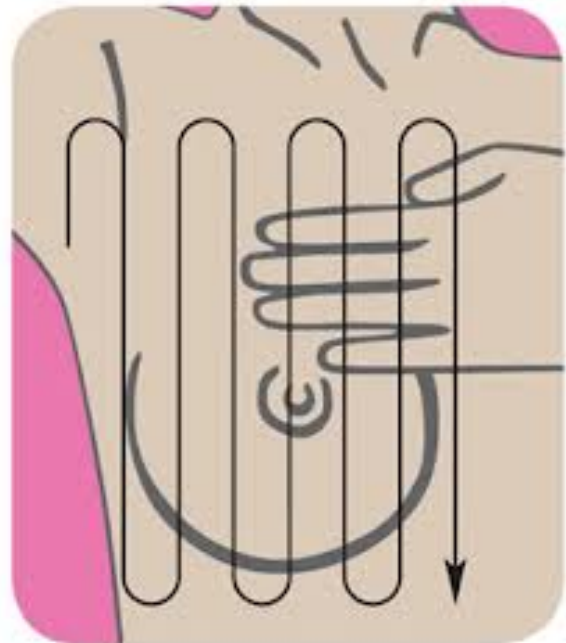
Do I need to do BSE if I had a mastectomy?

Yes. You need to perform a regular exam on the unaffected breast (side without surgery). On the mastectomy side, your surgeon or nurse will teach you how to carefully examine the scar and surrounding area.

If you are not sure how to examine your breasts, your doctor or nurse can teach you. The next page will explain how to do breast self-examination. You can tape the page to your mirror or call your American Cancer Society 800-ACS-2345 for a free reminder shower card. The shower card has step-by-step instructions with diagrams.

How to perform breast self-examination (BSE)

Breast self-examination includes both looking and feeling over the entire breast and chest area. Feeling (palpation) should be done in two positions – while lying down and while bathing. Looking (inspection) should be done in front of a mirror.



When examining the breasts, you should use a vertical pattern, cover the entire breast, and use adequate pressure (light, medium and firm). If you have always used a circular or wedge pattern continue to use that method to examine yourself. It is important to use the pads, not the tips, of the fingers. The time required varies with the size of a woman's breasts.



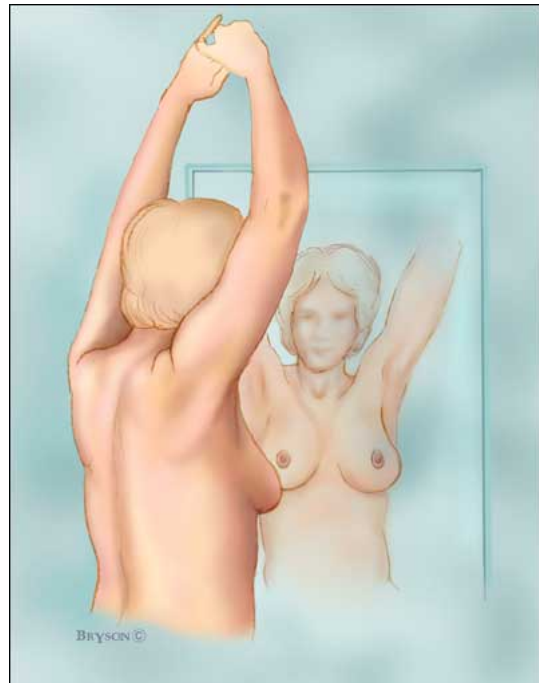
Lying down



Feel your breasts while lying down, using your right hand to feel your left breast and then your left hand to feel your right breast. Use a firm, smooth touch with the first few fingers of your hand. Use small circles and follow an up and down pattern.

Cover the entire breast from top to bottom, side to side—from your collarbone to the top of your abdomen, and from your armpit to your cleavage.

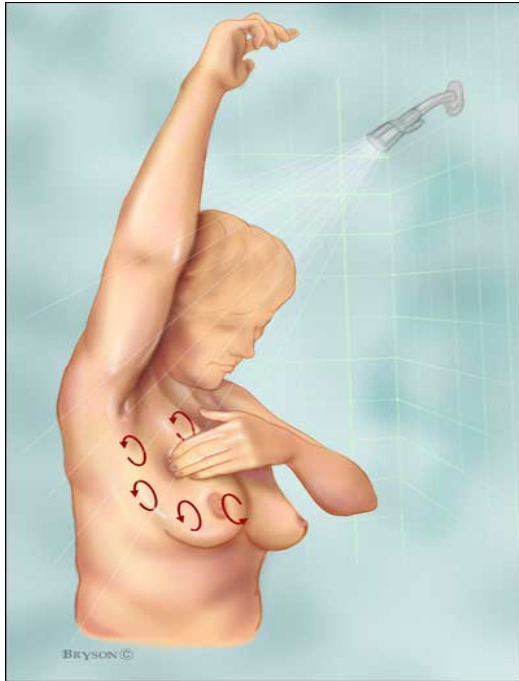
Before a mirror



Check for any changes in the shape, color or look of your breasts. Note any skin or nipple changes, such as dimpling or nipple discharge. Inspect your breasts in four steps: arms overhead, hands on hips, pressing firmly to flex chest muscles, and bending forward.



In the shower



Raise your right arm. With a soapy hand and fingers flat, check your right breast.

Use the method described in the “Lying Down” step. Repeat on your left breast.

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Questions

Questions and concerns will often come to mind in between doctor's visits with members of your healthcare team and it may be difficult to remember them when you are at your appointments. It is important that you get your questions answered and this section provides a place for you to jot things down as they come to mind. Use this section to record any questions that you have for your care providers so that you will remember to ask when you speak to your doctor, nurse or other members of your healthcare team.



My Journal

Coping with breast cancer is a deeply personal experience and many women find it helpful to keep a written record during this time. This section has been provided as a place to record your thoughts and feelings as you are on this very personal journey.



Employment Concerns

Your diagnosis may necessitate your making some changes in your work schedule or taking some time off from work. The Family Medical Leave Act was passed to protect your rights in the work place. This Act requires employers to allow “eligible” employees to take up to twelve weeks of unpaid job-protected leave from their jobs for certain family and medical reasons.

- Who is an “eligible” employee?
 - Someone who has worked for their employer for at least one year
 - Someone who has worked 1,250 hours during the past year for that employer
 - The employer has at least fifty employees within seventy-five miles
- Reasons for taking leave:
 - To care for your spouse, son, daughter or parent who has a serious health condition
 - For a serious health condition that makes the employee unable to perform his/her job
- Conditions of the leave
 - The employer may require advance notice if the leave is foreseeable
 - The employer may require medical certification

This information was obtained from the United States Department of Labor and is included here to give basic information about the Family and Medical Leave Act and is not a source of legal advice or guidance. To obtain more information via the Internet go to:
www.dol.gov/whd/fmla.

You may also contact the United States Department of Labor by phone at 1-866-4-USA-DOL. If you want information regarding how the FMLA might apply in your situation, we suggest that you contact your employer’s Human Resource Department.

The Equal Employment Opportunities Commission can also provide you information on your rights in the workplace and other federal laws that protect you on the job. They can be contacted at 1-800-669-EEOC or on the web at www.eeoc.gov.

You may also want to ask your employer about temporary and/or long-term disability options and if there is an Employee Assistance Program (EAP) at your workplace.



Insurance and Tax Tips

- Review your insurance policy and coverage. Contact the customer service representatives with any questions about your coverage:
 - Are pre-certifications or referrals needed for any of my care?
 - How do I submit claims?
 - Are second opinions covered?
 - Is reconstruction covered?
 - Am I entitled to a nurse visit at home after surgery?
- Have your insurance carrier give you a list of healthcare providers for radiation therapy and medical oncology should those services be necessary.
- Have your doctor/nurse practitioner write a prescription for your breast prosthesis, as well as any special mastectomy bras.
- The costs of special bras and prostheses, as well as the cost of altering your bras, may be tax-deductible.
- Be sure all bills and checks you write for breast prostheses or bras are marked as “surgical.”
- Keep all bills, checks and records of these purchases and anything related to your medical care for tax purposes.
- If you are Medicare or Medicaid eligible, they may pay for some of your medical expenses.
- If you are uninsured, call the American Cancer Society at 1-800-ACS-2345 for a list of insurance companies that may provide coverage and organizations that may have assistance plans.



Glossary of Breast Cancer Terms



Adenocarcinoma - Cancer that begins in cells that line the inside of organs. These organs make substances like hormones or milk. Most breast cancers are of this type. They begin in cells that make milk or in the cells that drain the breast milk.

Adenoma - An overgrowth of breast gland cells without any signs of cancer.

Adenopathy - Large or swollen lymph nodes.

Adjunctive therapy - Additional treatment used together with the main treatment to make that treatment work even better.

Adjuvant therapy - More treatment given to lower the chance of a cancer coming back. It comes after the main treatment plan. It may include chemotherapy, radiation therapy, hormone therapy, immune treatment, newer forms of treatment.

Advanced cancer – A general term describing stages of cancer in which the disease has spread from the primary site to other parts of the body.

Alopecia – Hair loss, which often occurs as a result of chemotherapy or from radiation therapy to the head. In most cases, the hair grows back after treatment ends.

Alternative medicine - Alternative medicine includes the use of dietary supplements, special teas, vitamins herbal preparations, and practices such as massage therapy, acupuncture, spiritual healing, and meditation. Alternative medicine includes treatment that may not be fully accepted by the main established medical community.

Androgen – A male sex hormone that may be used to treat recurrent breast cancer. The effect is to oppose the activity of estrogen, thereby slowing the growth of the cancer.

Antiemetics - Drugs that stop or reduce nausea and vomiting.

Antiestrogen - A substance that blocks the effects of estrogen on tumors. They are used to treat breast cancers that depend on estrogen for growth.

Areola - The round area of dark-colored skin around the nipple.

Axillary - This refers to the underarm area, including the lymph nodes in that area.

Axillary lymph nodes - Lymph nodes found in the armpit area. They filter the lymph fluid that drains from the breast through the lymph vessels and goes back to the heart.

Axillary lymph node dissection (axillary dissection) - Surgery to remove lymph nodes from the armpit area.

BRCA1 - A gene that maintains normal cell growth. If the gene becomes abnormal, then cell growth can become abnormal. The cells can grow out of control, forming a cancer. A woman who inherits an abnormal version of BRCA1 has a higher risk of getting breast and ovarian cancer.

BRCA2 - A gene that normally helps to prevent cell growth, especially the growth of abnormal or defective cells. A person who inherits an abnormal version of BRCA2 has a higher risk of getting breast, ovarian, or prostate cancer.

Benign - Has no signs of cancer. The growth of the cells in the tumor, cyst, lump, tissue, or cells is under control. There is no spread to nearby tissue or to other parts of the body.

Bilateral mastectomy - Surgery that removes both breasts completely.



Biological response modifier therapy (BRM therapy, immunotherapy, or biological therapy) - Treatment to help the body's defense system (or immune system) fight infection and disease. It is also used to help the immune system heal from the side effects of cancer treatment.

Biomarkers - These substances are normally present in small amounts in the blood or other tissues. Cancer cells can sometimes make these substances. When the amount of these substances rises above normal, cancer might be present in the body. Examples of biomarkers include CA 125 (ovarian cancer), CA 15-3 and 27-29 (breast cancer), CEA (ovarian, lung, breast, pancreas, and gastrointestinal tract cancers), and PSA (prostate cancer).

Biopsy - Removing cells or tissues to look at under a microscope. There are several types of biopsies, depending on how the sample is acquired. Cells are analyzed with a fine needle aspiration whereas pieces of tissue are evaluated with a core needle biopsy. A needle biopsy samples the area to make a diagnosis while an excisional or surgical biopsy removes the area for biopsy.

Bone marrow - The soft, sponge-like tissue in the center of bones that makes white blood cells, red blood cells, and platelets.

Bone marrow biopsy (bone marrow aspiration) - Removing a small sample of bone marrow to examine under a microscope. This is done with a hollow needle, usually from the hip.

Bone marrow transplantation - Bone marrow can be destroyed by high doses of cancer drugs. This is a procedure in which new marrow is put in place of the destroyed marrow. There are three places to get new marrow cells for a transplant: 1) your own bone marrow that was saved before cancer treatment (autologous); 2) bone marrow

given by someone else (allogeneic); and 3) bone marrow given by an identical twin (syngeneic).

Bone metastases - Cancer that has spread from the place where it started to the bone.

Bone scan – An imaging method that gives important information about the bones, including the location of cancer that may have spread to the bones.

Bone survey (skeletal survey) – An x-ray of all the bones of the body; often done when looking for metastasis to the bones.

Brain scan – An imaging method used to find anything not normal in the brain, including brain cancer and cancer that has spread to the brain from other places in the body. A low-dose radioactive substance is injected into a vein and images are taken to see where the radioactivity accumulates, pointing to an abnormality.

Breast augmentation (breast implant/mammoplasty) – Surgery to increase the size of the breast.

Breast cancer – Cancer that starts in the breast. The main types of breast cancer are: ductal carcinoma in situ (DCIS), invasive ductal carcinoma, invasive lobular carcinoma, medullary carcinoma, and Paget's disease of the nipple.

Breast-conserving surgery - An operation that completely removes the breast cancer along with a rim of normal breast tissue around it. Most of the normal breast is saved. There are 3 main ways this surgery is done: lumpectomy, quadrantectomy, and segmental mastectomy.

Breast reconstruction - Surgery to rebuild the breast's shape after a mastectomy.

Breast specialist – A term describing health care professionals who have a dedicated



interest in breast health. While they may acquire specialized knowledge in this area, medical licensing boards do not certify a specialty in breast care.

Calcification - Calcium that builds up in the tissues of the breast. It looks like grains of salt and can be seen on a mammogram. It cannot be found by touch.

CAM (complementary and alternative medicine) - Forms of treatment that are used in addition to, or instead of, standard treatments. Their purpose is to strengthen your whole mind and body to maximize your health, energy, and well-being. These practices are not considered "standard" medical approaches. They include dietary supplements, vitamins, herbal preparations, special teas, massage therapy, acupuncture, spiritual healing, visualization and meditation.

Cancer – Cancer is not just one disease but rather a group of diseases. All forms of cancer cause cells in the body to change and grow out of control. Most types of cancer cells form a lump or mass called a tumor (not all tumors are cancer). A cancerous tumor can invade and destroy healthy tissue. Cells from the tumor can break away and travel to other parts of the body. There they can continue to grow. This spreading process is called metastasis. When cancer spreads, it is still named after the part of the body where it started (breast cancer that spreads to the lungs is still breast cancer, not lung cancer).

Carcinoma - Cancer that begins in skin or tissues that line the inside or cover the outside of internal organs.

Carcinoma in situ - Cancer that involves only the small area where it started. It has not spread into normal surrounding breast tissue.

CAT scan (computerized axial tomography scan/computed tomography/CT scan/ computerized tomography) - A series of detailed pictures of areas inside the body, taken from different angles, created by an x-ray machine linked to a computer.

Chemoprevention – Prevention or reversal of disease using drugs, chemicals, vitamins or minerals. While this idea is not ready for widespread use, it is a very promising area of study. The Breast Cancer Prevention Trial has show that the drug tamoxifen can prevent some cases of breast cancer among women with high risk of this disease.

Chemotherapy - Treatment with drugs that kill cancer cells or makes them less active.

Clinical trial (clinical study) - Research that tests how well new medical treatments or other medical practices work in people. Each study is carefully designed to test new methods of screening, prevention, diagnosis, or treatment of a disease.

Colloid carcinoma (mucinous carcinoma) – A rare type of infiltrating breast cancer that is formed by mucus-producing cancer cells. The prognosis for this kind of cancer is considered to be better than average.

Combination chemotherapy - Treatment using more than one anticancer drug.

Combined modality therapy – Two or more types of treatment used alternately or together to get the best results such as surgery followed by chemotherapy.

Complete remission (complete response) - When all signs of cancer disappear in response to treatment. This is based on your symptoms, physical exam, and radiology and lab tests. This does not always mean the cancer has been cured.



Computer-aided detection (CAD) - This is a method that turns the image on a mammogram film into a computer image. A computer program can then be used to highlight areas on the image that may be abnormal. A radiologist can look at the highlights and decide if you may need more tests or not.

Contralateral mastectomy - Removing the breast on the other side, opposite from the first breast that was treated. This may be done to lower the chance of cancer showing up on that side.

Cyst - A sac or capsule filled with fluid.

Diagnostic procedure - A method used to see if a disease is present or not. It is also used to figure out what kind of disease is present.

Duct - A tiny part of the body shaped like a tube or pipe. Body fluids pass through it—for example, tear ducts, bile ducts, and milk ducts.

Ductal carcinoma in situ (DCIS/intraductal carcinoma) - Abnormal breast cells that involve only the lining of a milk duct. These cells have not spread outside the duct into the normal surrounding breast tissue.

Dysplasia - Cells that do not look normal under a microscope but are not cancer.

Edema – A build-up of fluid in the tissues causing swelling.

Endocrine therapy (hormone therapy) - Cancer treatment that removes, blocks or adds hormones.

Estrogen – A female sex hormone. When a woman has breast cancer, it may promote the growth of cancer cells.

Estrogen receptor assay – A laboratory test done on a sample of the breast cancer in order to see whether estrogen receptors are present. This will help to determine how to treat the cancer.

Estrogen receptor down-regulators (ERDs) - A group of drugs used against estrogen receptors found on breast cancer cells. When the receptors stop working, the cells get fewer signals telling them to grow. This can slow down or stop the growth of the cancer.

Estrogen receptor negative (ER-) - Breast cancer cells without estrogen receptors. Estrogen receptors are special proteins that the hormone estrogen binds to. ER negative breast cancer cells do not depend on estrogen to grow. Anti-estrogen hormonal therapy has no role against this type of cancer.

Estrogen receptor positive (also called ER+) - Breast cancer cells that have estrogen receptors. Estrogen receptors are special proteins that the hormone estrogen binds to. Breast cancer cells that are ER+ depend on estrogen to grow. Anti-estrogen hormonal therapy blocks the receptors or reduces the amount of estrogen that can get into the receptors. As a result, the cancer cells may shrink or die.

Erythropoietin (EPO) -This is a chemical that stimulates the production of new red blood cells. It is made in the kidney. If EPO levels are low, then the number of red blood cells is reduced (a condition called anemia).

Excisional biopsy - Surgery that takes out an entire lump or suspicious area to be checked under a microscope.

Fibrocystic breast disease - Breast gland tissue build-up or cysts. They can become swollen and painful. They are not cancerous. But some types of fibrocystic changes are



associated with an increased risk of breast cancer in the future.

Fine-needle aspiration (needle biopsy) -

This is a test that uses a hollow needle to remove tissue or fluid. Then the material is looked at under a microscope to see if it is normal or abnormal.

Frozen section – A very thin slice of tissue that has been quick-frozen and then examined under a microscope. This method gives a quick diagnosis, sometimes while the surgeon is waiting to complete a procedure. The diagnosis is confirmed in a few days by a more detailed study called a permanent section.

Gene - The basic unit of a cell that passes on the traits of parents to their children through the egg and sperm. Genes are pieces of DNA. They have information for making specific proteins that control specific traits or activities. Examples of traits controlled by genes are eye color, foot size, and height. Examples of activity include the growth and repair of cells.

Gene therapy - Treatment that tries to fix a gene that's causing a cancer or making the cancer grow. It may also help the body's ability to fight the cancer. It may help make cancer cells easier to attack with new treatments.

Genetic counselor – A specially trained health professional who helps people as they consider genetic testing, as they adjust to the test results, and as they consider whatever screening and preventive measure are best for them.

Genetic testing – Tests done to see if a person has certain gene changes known to increase cancer risk. This testing is not recommended for everyone, but rather for those with specific types of family history.

Gland - This word has a few different meanings. It can be a group of cells or an organ that makes one or more substances used in the body, like sweat, milk, mucus, hormones, and growth factors. Other glands filter and remove substances from the blood or lymph fluid. Some people use the word "gland" to describe lymph nodes.

Grade – The grade of a cancer reflects how abnormal it looks under the microscope. There are several grading systems for breast cancer, but all divide cancer into those with the greatest abnormality (*Grade 3* or poorly differentiated), the least abnormality (*Grade 1* or well differentiated) and those with intermediate features (*Grade 2* or moderately differentiated). Grading is done by the pathologist who examines the biopsy specimen. Grading is important because higher grade cancers tend to grow and spread more quickly and have a worse prognosis.

HER1 - The protein found on the surface of some cells and to which the epidermal growth factor binds, causing the cells to divide. This epidermal growth factor receptor is found at abnormally high levels on the surface of many types of cancer cells, and may be why these cells divide as actively as they do.

HER2 (HER2/neu)- A gene that helps control how cells grow, divide, and repair themselves. It is important in the control of abnormal or defective cells that could become cancerous.

Herceptin - A drug used to treat women with breast cancer that has too many HER2 genes, or too much HER2 protein. (This type of breast cancer is called HER2-positive.) It is available for women with advanced disease. It may be offered on a clinical trial to women with large cancer or cancer in the lymph nodes. The FISH and



IHC tests can show if a cancer is likely to respond to this drug.

Hereditary cancer syndrome – Conditions associated with cancers that occur in multiple family members because of an inherited, mutated gene.

Hormonal therapy - Cancer treatment that removes, blocks, or adds hormones.

Hormones - Chemicals made by glands in the body. They circulate in the blood and control the actions of certain cells or organs. For example, estrogen is made in the ovary, travels in the blood to the breast, and can stimulate the growth of breast cells.

Hormone receptor - A protein on the surface or inside a cell. It connects to a certain hormone and causes changes in the cell.

Hormone receptor assay – A test to see if a breast tumor is likely to be affected by hormones or whether it can be treated with hormones.

Hyperplasia - Cells in an organ or tissue that is growing too fast.

Immune system – The complex system by which the body resists infection.

Immunocompromised - Having an immune system that is weak because of treatment or disease.

Immunodeficiency - The ability of the body to fight infection and disease is low.

Immunotherapy (biological therapy, biological response modifier therapy, or BRM therapy) - Treatment to help the body's defense system (or immune system) fight infection and disease. It is also used to help the immune system heal from the side effects of cancer treatment.

Implant – An artificial form used to restore the shape of the breast after surgery.

IMRT (Intensity Modulated Radiation Therapy) - Many treatment fields are used to give a concentrated dose of radiation to the area at risk for cancer. Normal tissue is largely spared.

Incisional biopsy - Surgery in which a part of a lump or suspicious area is taken out of the body. It is then looked at under a microscope to see if it's normal or abnormal.

Induction therapy - Treatment used as a first step toward shrinking the cancer. It is also used to see how the cancer responds to specific drugs and other agents. It is followed by more therapy to get rid of any remaining cancer.

Infiltrating ductal carcinoma (Invasive ductal carcinoma/IDC) - A cancer that can invade other tissue. It begins in the milk duct but grows into the surrounding normal tissue inside the breast. It is the most common kind of breast cancer.

Inflammatory breast cancer - A fairly rare type of breast cancer. The breast looks red and swollen and feels warm. The skin of the breast may look like the skin of an orange. Sometimes a lump is also found in the breast.

In situ cancer - Early cancer that has not spread into nearby tissue.

Interferon - A substance that stimulates the body's natural response to disease. It can stop the production of new cancer cells and slow down cancer cell growth. It is normally made in the body. But it can also be made in the lab for use in treating cancer and other diseases.

Intraductal carcinoma (DCIS or ductal carcinoma in situ) - Abnormal breast cells



that involve only the lining of a milk duct. These cells have not spread outside the duct into the normal surrounding breast tissue.

Invasive cancer (infiltrating cancer) - Cancer that has spread beyond the layer of tissue in which it started. It grows into the normal surrounding tissues.

Invasive lobular carcinoma (Infiltrating lobular carcinoma/ILC) - Cancer that starts in the milk glands. It grows into the normal surrounding tissues. Between 10% and 15% of all breast cancers are of this type.

IORT (intraoperative radiation therapy) - Radiation treatment aimed directly at a cancer during surgery.

Irreversible toxicity - Side effects that do not go away.

Latissimus dorsi flap - A breast reconstruction procedure in which skin, fat, and muscle is taken from the person's abdomen, back, or buttock. The tissue can be detached as a free piece and moved, or it can remain attached as a "flap" and slid under the skin to a new location on the chest. In either case, the tissue is sewn into place as a new breast. The advantage of keeping the tissue flap attached to its original source is that it remains connected to its own blood supply. This increases the chance that the transplanted tissue will thrive and do well in its new location.

Lesion - An area of abnormal tissue change. For example, a lump, wound, or area of injury.

Leucopenia - A condition in which the number of white blood cells in the blood goes down.

Linear accelerator - A machine used in radiation therapy to treat cancer. It gives off gamma rays and electron beams.

Lobular carcinoma in situ (LCIS) - Abnormal cell growth in the milk producing glands .. These cells are not likely to turn into an invasive cancer. But having them means a higher risk of getting breast cancer in either breast.

Lobule - This is a tiny part of the breast that makes milk. It looks like a bunch of grapes. The breast has millions of lobules in it. After the milk is made, it drains from the lobules to the nipple through milk pipes, called ducts.

Local cancer - An invasive malignant cancer confined entirely to the organ where the cancer began.

Local therapy - Treatment that affects cells in the cancer and the area close to it.

Localized - Keeping to the site of origin, without any sign of spread to other areas (localized breast cancer starts in the breast and stays in the breast)

Locally advanced cancer - Cancer that has spread to large parts of the breast or the nearby lymph nodes.

Lumpectomy (Limited breast surgery/segmental excision/tylectomy) - Surgery to remove the cancer and a small amount of normal tissue around it.

Luteinizing hormone-releasing hormone agonists (LH-RH agonists) - Drugs that lower the amount of sex hormones in the body. In women, they cause the levels of estrogen and other sex hormones to fall. In men, they cause testosterone levels to fall.

Lymph (lymphatic fluid) - The special fluid that travels through the lymphatic



channels or vessels. It carries cells that help fight infection and disease.

Lymph node - A rounded mass of lymphatic tissue that is surrounded by a covering of connective tissue. Also known as a lymph gland. Lymph nodes are spread out along lymphatic vessels and contain many lymphocytes, and act as a filter system for the lymphatic fluid (lymph).

Lymph node mapping - The use of dyes and radioactive substances that flow through the lymph vessels and serve to identify and locate lymph nodes that contain cancer cells.

Lymphadenectomy - (lymph node dissection) - Surgery in which lymph nodes are removed and looked at to see if they have cancer in them.

Lymphadenopathy - Disease or swelling of the lymph nodes.

Lymphangiogram - X-rays of the lymphatic system. A dye is injected into a lymphatic vessel and travels throughout the lymphatic system. The dye outlines the lymphatic vessels and organs on the x-ray image.

Lymphatic invasion - When cancer cells break out of the place where they started and go into the lymph and blood vessels inside the breast. This is how cancer cells can travel to other areas of the body.

Lymphatic system - The tissues and organs that produce, store, and carry white blood cells that fight infection and disease. This system includes the bone marrow, spleen, thymus, and lymph nodes. It also includes the network of thin tubes that carry lymph and white blood cells. These tubes branch, like blood vessels, and pass through all tissues of the body.

Lymphedema - A condition in which too much lymph fluid collects in tissue. This causes swelling. It can happen in the arm after lymph nodes in the underarm are removed. It can also happen if there is radiation to the lymph nodes or chemotherapy. It can get worse if the arm is hurt in any way.

Lymphocyte - A white blood cell. Lymphocytes have a number of roles in the immune system, including the production of antibodies and other substances that fight infection and disease.

Lymphoscintigraphy - A method used to identify the sentinel lymph node, the first draining lymph node nearest a cancer. A radioactive substance that can be taken up by lymph nodes is injected at the site of the breast cancer. Then a doctor tracks the movement of this substance from the location in the breast over to the lymph nodes on a computer screen. Once the lymph nodes on the path from the cancer take up the substance and are identified, they can be removed and examined to see if in fact the cancer cells have moved into the lymph nodes.

MRI (magnetic resonance imaging) - This is a test that looks at areas inside your body. Detailed pictures are made by a magnet linked to a computer. These are read by a radiologist.

Maintenance therapy - Treatment that is given to help a primary (original) treatment keep working. Maintenance therapy is often given to help keep cancer in remission.

Malignant - Cancerous; a growth that tends to spread into nearby normal tissue and travel to other parts of the body.

Mammogram - An x-ray picture of the breast.



Mammoplasty – Plastic surgery to reconstruct the breast or to change the shape, size, or position of the breast.

MammoSite™ - A device that helps deliver internal radiation after lumpectomy to the area where the cancer was.

Mastectomy - Surgery that removes the whole breast.

Medical oncologist - This is one kind of cancer doctor. This type of doctor gives treatment to the whole system, like chemotherapy, hormone therapy, and immune therapy. After these treatments are over, this doctor follows you over time to make sure you are well.

Medullary carcinoma – A special type of infiltrating ductal carcinoma with especially sharp boundaries between tumor tissue and normal tissue. About 5% of breast cancers are this type and the prognosis is considered to be better than average.

Metastasis - The spread of cancer from one part of the body to another.

Microcalcification - A tiny build-up of calcium in the breast. It cannot be felt but it can be seen on a mammogram. A cluster of these very small specks of calcium may mean that cancer is present.

Micrometastases - The spread of cancer cells in groups so small that they can only be seen under a microscope.

Modified radical mastectomy - This is a type of breast cancer surgery. The whole breast and some of the lymph nodes under the arm are removed.

Monoclonal antibodies - Special fighter proteins made in the lab. Each one is made to target only one substance. They can be used in many ways, because they can find and connect to cancer cells wherever they

are in the body. They can be used to find or treat cancer. Or they can be used to take drugs, toxins, or radioactive material straight to a cancer.

Multicentric breast cancer - Breast cancer occurring in several areas of a breast.

Multidrug resistance - This is when cancer cells are able to survive despite the effects of anticancer drugs. This means the drugs become less effective. For example, sometimes cancer cells figure out how to change so they can go on living despite chemotherapy drugs.

Multidrug resistance inhibition - Treatment used to make cancer cells more vulnerable to the effects of anticancer drugs.

Multimodality treatment - Therapy that combines more than one method of treatment.

Myelosuppression - A condition in which the bone marrow makes fewer blood cells. This means there are fewer red blood cells, white blood cells, and platelets. It is a side effect of some cancer treatments.

Natural killer cells (large granular lymphocytes) - A type of white blood cell that contains granules with enzymes that can kill cancer cells or microbial cells.

Necrosis - Dead cells.

Needle biopsy - This is a test that uses a hollow (or core) needle to remove tissue from an area and sample it for diagnosis.

Needle localization - A procedure used to guide a surgical breast biopsy when the lump is hard to locate or when there are areas that look suspicious on the x-ray but no distinct lump is present. A thin needle is placed into the breast. X-rays are taken and used to guide the needle to the suspicious



area. The surgeon then uses the path of the needle as a guide to locate the abnormal area to be removed.

Negative axillary lymph nodes - Lymph nodes in the area of the armpit that are free of cancer. You find this out by having surgery that removes some of the nodes. They are then looked at under a microscope to see if they have cancer cells in them.

Neoadjuvant therapy - Treatment that's given first to help make the next treatment step go more smoothly. For example, chemotherapy, radiation or hormones may be given before surgery. In breast cancer, this therapy is mainly used to shrink a large tumor so that it's easier to take out.

Neoplasm - A collection of cells that are growing in an uncontrolled way. It can be benign or cancerous.

Nipple discharge - Fluid that comes out of the nipple.

Node-negative - When there is no cancer in the lymph nodes.

Node-positive - When there is cancer in the lymph nodes.

Nuclear medicine scan – A method for localizing diseases of internal organs such as the brain liver or bone. Small amounts of a radioactive substance (isotope) are injected into the bloodstream. The isotope collects in certain organs and a special camera is used to produce an image of the organ and detect areas of disease.

Oncogene - A gene that controls cell growth. If the gene is abnormal it can allow cells to grow out of control. This can result in cancer.

Oncologist - A doctor who specializes in taking care of people with cancer. Some

specialize in one type of cancer treatment. For example, a radiation oncologist treats cancer with radiation, and a medical oncologist treats cancer with medications. Some oncologists also specialize in one kind of cancer. For example, a breast cancer oncologist diagnoses and treats breast cancer.

Oncology nurse - A nurse who specializes in treating and caring for people who have cancer.

Paget's disease of the nipple - This is a type of breast cancer that involves the nipple. The cancer cells start in the milk-pipes or ducts at the surface of the nipple. As the cancer grows on top of the nipple, it forms a dry, crusty, bumpy rash. It can cause itching and burning around the nipple. Sometimes it can also cause oozing or bleeding. Some doctors might think it is just eczema or dry skin.

Palliative therapy - Treatment to relieve symptoms caused by advanced cancer. Its purpose is to improve the quality of life.

Partial mastectomy (segmental mastectomy) - The removal of the cancer as well as some of the breast tissue around the cancer and the lining over the chest muscles below the cancer. Usually some of the lymph nodes under the arm are also removed.

Partial remission (partial response) - This is when a cancer shrinks, but does not completely go away, in response to therapy.

Pathologist - A doctor who checks tissue or fluid taken from the body using a microscope to see if it is normal or abnormal.

Pathology report - A report that describes what was found in tissue removed from the body. The cancer and surrounding normal



tissue are checked with a microscope and other special tests. The report tells you many things about the extent and nature of the disease.

Peau d'orange - This term means "orange skin" in French. It's when the skin of the breast looks like the skin of a navel orange: It gets swollen and the hair follicles look like lots of little dimples. This can be a sign of inflammatory breast cancer.

Permanent section – A procedure that takes 1-2 to prepare and study tissue samples to see if cancer is present (compare with frozen section).

PET scan (positron emission tomography scan) - A computerized image of the energy-producing activity of the body tissues, used to determine the presence of disease.

Plasma cells - A type of white blood cell that makes antibodies. (These are special proteins that protect you against infection.)

Plastic surgeon - A doctor who does special types of surgery to improve how you look. Examples of plastic surgery are breast reconstruction after mastectomy.

Platelets (thrombocytes) - Blood cells that help stop bleeding. They do this by forming blood clots.

Port-a-cath (port) - A small device placed under the skin. It empties into a blood vessel and makes it easier to give chemotherapy and to take blood for tests.

Positive axillary lymph nodes - Lymph nodes in the area of the armpit that contain cancer cells. This is determined by having surgery that removes some of the nodes. They are then looked at under a microscope to see if they have cancer cells in them.

PR- (progesterone receptor negative) - Breast cancer cells without progesterone receptors. These receptors are special proteins that the hormone progesterone binds to. PR negative breast cancer cells do not depend on progesterone to grow.

PR+ (progesterone receptor positive) - Breast cancer cells that react to the hormone progesterone. They need it to grow. Hormone treatments can work with these cells.

Precancerous (premalignant) - A term used to describe a condition that may, or is likely to become, cancer.

Preventive mastectomy (prophylactic mastectomy) - Surgery to remove one or both breasts in order to reduce the risk of developing breast cancer.

Primary tumor - The main original cancer.

Progesterone receptor assay - A laboratory test done on a piece of the breast that shows whether the cancer depends of progesterone for growth. This will help to determine how to treat the cancer.

Prognosis - How you are expected to do after a disease is diagnosed. It is based on many things, including stage of disease, kind of disease, response to treatment, and your general state of health. It may be presented as a kind of forecast by your healthcare provider.

Prophylaxis - An attempt to prevent disease.

Prosthesis – An artificial form that can be worn under clothing after a mastectomy.

Quadrantectomy - Surgery to remove the part of the breast with cancer. Usually about one quarter of the breast is removed.



Radiation oncologist - A doctor who specializes in using radiation to treat cancer.

Radiation surgery (radiosurgery/stereotactic external beam irradiation) - A radiation therapy technique that delivers radiation directly to the cancer while sparing healthy tissue.

Radiation therapy (radiotherapy) - The use of high-energy radiation from x-rays, gamma rays, neutrons, and other sources to kill cancer cells and shrink tumors. Radiation may come from a machine outside the body (external-beam radiation therapy), or it may come from radioactive material placed in the body in the area near cancer cells (internal radiation therapy, implant radiation, or brachytherapy). Systemic radiation therapy uses a radioactive substance, such as a radiolabeled monoclonal antibody, that circulates throughout the body.

Radical mastectomy (Halsted radical mastectomy) - Surgery for breast cancer in which the breast, chest muscles, and all of the lymph nodes under the arm are removed. For many years, this was the most common operation for breast cancer. It is rarely performed today.

Radioimmunotherapy - Treatment with a radioactive substance linked to an antibody that attaches to the cancer cells when injected into the patient.

Radioisotopes - Unstable chemicals that give off radiation as they break down. They can be used in imaging tests or as a treatment for cancer.

Radiologist - A doctor who specializes in taking pictures of areas inside the body and figuring out what they show. The pictures are made with x-rays, sound waves, or other types of energy.

Radiosensitization - Using a drug to make cancer cells more sensitive to radiation therapy.

Randomized clinical trial - A study in which the participants are assigned by chance to separate groups that compare different treatments. Neither the researchers nor the participants can choose which group they may join. Using chance to assign people to groups means that the groups can be compared objectively. At the start of the trial, it is not known which treatment is best. The patient can choose to be part of a randomized trial—or not.

Reconstruction - Rebuilding or repairing an area of the body that has been damaged or removed.

Recurrence - This is when a cancer comes back after treatment. It can come back in the same place as the original one or in a different part of the body.

Re-excision lumpectomy - Surgery to remove extra tissue around the place where the cancer used to be. This is done to get clear margins around the cancer and to make sure no more cancer cells are left behind.

Refractory cancer - Cancer that has not responded to treatment.

Regional cancer - Cancer that has grown beyond the original (primary) cancer to nearby lymph nodes or organs and tissues.

Regional lymph node - A lymph node that drains lymph fluid from the area around a cancer.

Relapse - The return of signs and symptoms of cancer after a period of improvement.

Remission - A decrease in or disappearance of signs and symptoms of cancer. In partial remission, some, but not all, signs and symptoms of cancer have disappeared. In



complete remission, all signs and symptoms of cancer have disappeared, although there still may be cancer cells present in the body.

Residual disease - Cancer cells that are left over after surgery.

Resistance - When a cancer does not respond to treatment.

Response rate - The percentage of patients whose cancer shrink or disappear because of treatment.

Saline implant - To place securely or insert or graft an inert device that contains salt water, that increases the size of the area of the implant.

Salvage therapy - Treatment given after the cancer has not responded to other treatments.

Screening - Checking for disease when there are no symptoms.

Secondary cancer (secondary tumor) - Cancer that comes back where it first started or cancer that has spread to another part of the body. For example, breast cancer cells may recur in the breast area or spread (metastasize) to the lung. When this happens, the disease is called recurrent or metastatic breast cancer. The return of cancer in the breast and the spread of cancer in the lung is called a secondary cancer.

SERMs (selective estrogen receptor modulators) - A group of drugs used to fight breast cancer cells that have hormone receptors. These drugs can reduce the risk of a new breast cancer. They can also delay the return of breast cancer and control its spread. They block estrogen receptors on breast cancer cells. This can slow down or stop the growth of cancers that need estrogen to grow.

Sentinel lymph node - The first lymph node that cancer is likely to spread to from the place where it started.

Sentinel lymph node biopsy - A procedure in which a dye and/or radioactive substance is injected near the cancer. The dye or radioactive substance flows into the lymph nodes. The first lymph node that it reaches is called the sentinel lymph node. It is also the first lymph node that cancer cells might spread to after breaking away from the main cancer in the breast. Sometimes there is more than one sentinel node. A surgeon finds the sentinel lymph node, or nodes, by looking for the dye or detecting the radioactive substance. Then the node or nodes are removed and checked to see if there are cancer cells in them.

Sentinel lymph node dissection - This is surgery to find and take out the sentinel lymph node. This node is the very first lymph node that is reached by lymph fluid from the site of a breast cancer. Cancer cells sometimes break away from the main cancer and travel through the lymph system. If this happens, this node is more likely than other lymph nodes to filter out and trap these cells. To find out if cancer has spread to the lymph nodes in women with early breast cancer, doctors take out just this lymph node. This has been found to work just as well as taking out many lymph nodes.

Sequential treatment - One treatment after the other.

Side effects - This is when treatment for a disease causes problems for healthy cells. Common side effects of cancer treatment are fatigue, nausea, vomiting, decreased blood cell counts, hair loss, and mouth sores.

Silicone implant - A soft packet filled with silicone that is inserted under the skin to replace or enhance breast tissue.



Simple mastectomy (total mastectomy) - Surgery to remove the whole breast.

Skin-sparing mastectomy - A type of surgery to remove the breast that keeps all of the skin of the breast where it is, except for the nipple and areola. This allows for a more even skin tone if the breast is rebuilt. In other types of mastectomy, the breast tissue and skin are all removed. Then, if the breast is rebuilt, it looks patchy because skin is taken from another part of the body.

Sonogram - (ultrasonogram/ultrasound) - A test that uses sound waves to create images of structures within the body. The pictures appear on a computer screen. They can also be put on film.

Stable disease - Cancer that is neither decreasing nor increasing in its range or severity.

Stellate - Star-shaped. This term is used to describe what some cancers look like on a mammogram.

Stereotactic biopsy - This is a method of needle biopsy that takes a piece of tissue from an abnormality that is seen on a test but that cannot be felt. Since you can't feel the abnormality, you have to use another way to find it. This is done with the mammogram and a computer which determines the three-dimensional location of a lesion in the breast for biopsy with a core needle. The patient lies on her stomach during the procedure which is done with the aid of local anesthesia. Once the tissue is removed, it is examined under a microscope to see if it is normal or abnormal.

Stereotaxis - A technique that uses a computer and imaging device to localize an area of concern within three-dimensional pictures of the body. It can be used to help

do a biopsy, give external radiation, or put in radiation implants.

Systemic disease - Disease that affects the whole body.

T cell - One type of white blood cell that attacks virus-infected cells, foreign cells, and cancer cells. T cells also produce a number of substances that regulate the immune response.

Tamoxifen - A drug used to fight breast cancer cells that have hormone receptors. It can reduce the risk of a new breast cancer. It can also delay the return of breast cancer and control its spread. It blocks estrogen receptors on breast cancer cells. This can slow down or stop the growth of cancers that need estrogen to grow. It belongs to the family of drugs called "selective estrogen receptor modulators," or "SERMs."

Thrombocytopenia - This is when the number of platelets in the blood is too low. Platelets are blood cells that help stop bleeding. This condition may result in easy bruising and excessive bleeding from wounds. It may also cause bleeding in the inside lining of your mouth and intestinal tract as well as in other tissues.

Thrombopoietin (TPO)- A growth factor that gets bone marrow to start making more platelets and other types of blood cells. It may be used to increase low blood counts during or after chemotherapy.

Thrush - An overgrowth of yeast in the mouth. Usually white spots appear in the mouth and throat. It is a relatively common side effect of chemotherapy or long-term steroid use.

Tissue expander - An enlarging balloon that stretches the skin after mastectomy. It is used so that an implant can fit in place and have a natural shape. It is put under the skin



and chest muscles where the breast used to be. Salt water is injected into the expander every two to three weeks for about three to four months. This is done until the chest skin has stretched to the desired size. The expander is usually removed and replaced by an implant. Some expanders can be kept in place like an implant.

Tomography - A series of detailed pictures of areas inside the body. The pictures are created by a computer linked to an x-ray machine.

Topical chemotherapy - Treatment with anticancer drugs contained in a lotion, cream, ointment or special bandage. These are applied to the skin.

Total estrogen blockade - Therapy used to get rid of all estrogen in the body. This may be done with surgery, radiation therapy, chemotherapy, hormone therapy, or a combination of these treatments.

Total mastectomy (simple mastectomy) - Surgery to remove the whole breast.

Toxic - Poisonous or harmful to the body. Drugs used to kill cancer cells can also have toxic effects on normal tissue.

TRAM flap (transverse rectus abdominis myocutaneous flap) - TRAM stands for transverse rectus abdominis myocutaneous, a muscle located in the lower abdomen. In most women there is enough skin, fat, and muscle here to reconstruct a new breast. The tissue can be detached and moved, or the tissue can remain attached as a flap and slid under the skin up to the chest. In either case, the tissue is sewn into place as a new breast. The excess skin and fat that are removed from the lower abdomen can be considered a "tummy tuck", which some women appreciate as a fringe benefit from the surgery.

Tubular carcinoma – A special type of low-grade infiltrating breast cancer that accounts for about 2% of invasive breast cancers. The prognosis for this kind of cancer is considered to be better than average.

Tumor - An abnormal mass of tissue resulting from an overgrowth of cells. It may be benign (not cancerous) or malignant (cancerous).

Tumor markers (biomarkers) - These substances are normally present in small amounts in the blood or other tissues. Cancer cells can sometimes make these substances. When the amount of these substances rises above normal, cancer might be present in the body. Examples of biomarkers include CA 125 (ovarian cancer), CA 15-3 and 27-29 (breast cancer), CEA (ovarian, lung, breast, pancreas, and gastrointestinal tract cancers), and PSA (prostate cancer).

Ultrasound - A test that uses sound waves to create images of structures within the body. The pictures appear on a computer screen. They can also be put on film.

Unresectable - Tissue that cannot be removed with surgery.

White blood cells (leukocytes) - Cells that help the body fight infection and disease.



Wire localization - A procedure used to guide a surgical breast biopsy when the lump is hard to find or when there is an area that looks suspicious on the mammogram. A thin hollow needle is placed into the breast and x-rays are taken to guide the needle to the area in question. A fine, thin wire is inserted through the center of the

needle. A small hook at the end of the wire keeps it in place. The hollow needle may be removed, and the surgeon uses the path of the wire as a guide to locate the abnormal area.

*(information provided courtesy of
breastcancer.org)*



Breast Cancer Resources



Several national organizations were formed to help patients and their families cope with a diagnosis of breast cancer. These resources can help answer questions, give you additional information to assist in your decision-making, help you cope emotionally and guide you through this journey. You can contact these groups and access a variety of resources, such as free education materials on breast cancer related topics, on-line support groups, and information on local resources and support group meetings in your community.

Penn Medicine Virtua Cancer Program
1-888-Virtua-3 (1-888-847-8823)
www.virtua.org

National Cancer Institute
Cancer Information Service
1-800-4-CANCER (1-800-422-6237)
www.cancer.gov

Susan G. Komen for the Cure
Understanding Breast Cancer
Treatment Navigation Tool
1-877-GO-KOMEN (1-877-465-6636)
www.komen.org

The American Cancer Society
1-800-ACS-2345 (1-800-227-2345)
www.cancer.org

ABCD: After Breast Cancer Diagnosis
Breast Cancer Organization
1-800-977-4121
www.abcdbreastcancersupport.org

Cancer Care, Inc.
1-800-813-4673
www.cancercare.org

The Cancer Support Community
1-888-793-9355
www.cancersupportcommunity.org

Living Beyond Breast Cancer
1-888-753-5222
www.lbbc.org

Young Survival Coalition
This group is for women under forty with breast cancer.
www.youngsurvival.org

The Advocacy Connector
<http://www.advocacyconnector.com>

Cancer and Careers
<http://www.cancerandcareers.org/en>
Cancer and Careers empowers and educates people with cancer to thrive in their workplace by providing expert advice interactive tools and educational events.

The National Lymphedema Network
<https://lymphnet.org>



How can I help?

There is life after breast cancer. Although it takes time before some patients can call themselves a “breast cancer survivor” by definition, anyone living today with a cancer diagnosis is a survivor. Some patients want to forget and put the experience behind them. Others want to use what they have learned and give back to the community by helping other women. Helping others can sometimes give a sense of meaning to patients who wonder why they were diagnosed with breast cancer. Reaching out to other women can be a source of emotional healing. However, it is a different experience for each patient and there is no right answer.

This may not be the right time for you to help others. Give yourself some space and time to reflect and accept all that you have experienced throughout this journey. You cannot help others until you have healed yourself.

Be an advocate

www.virtua.org/services/cancer-treatment/njceed-at-virtua

If you know someone that cannot afford cancer screening, tell him or her about the New Jersey Cancer Education and Early Detection Program (NJ CEED).

The NJ CEED program provides education and cancer-screening services to residents of Burlington and Camden counties. The CEED program and the Penn Medicine Virtua Cancer Program provide services free-of-charge to eligible individuals who are uninsured or lack adequate health insurance. For women, this includes mammograms, clinical breast exams, pap smears, and colorectal cancer screening. To learn more about the program call, 1-888-Virtua-3.

“Be kind for everyone is fighting a hard battle”

Plato



Additional ways that you can help

- Share your story with loved ones, co-workers and neighbors. Remind them to follow the breast cancer early detection guidelines.
- Share your story with a bigger audience. You do not have to be a professional speaker to talk about your experience from the heart. We are always looking for survivors to join doctors, nurses and educators when speaking at community events. The hospital staff will educate others about breast cancer but you can talk about living with breast cancer. Sharing your story can make a difference and maybe inspire a woman to go for her first mammogram or to see a doctor.
- Volunteer at the center or hospital where you received treatment. If you would like to volunteer at the Penn Medicine Virtua Cancer Program, please call 1-888-Virtua-3 (1-888-847-8823).
- Participate as a walker, volunteer or donor to support local breast cancer fundraisers such as the Philadelphia or Princeton Race for the Cure events or the American Cancer Society's Making Strides Against Breast Cancer walk.
- A year after the end of treatment, you can complete a training course to become a Reach to Recovery volunteer. This visitation program matches newly diagnosed patients with breast cancer survivors. Call your local ACS chapter at (856) 616-1650 to learn more about this training program.
- Give to a national non-profit organization that provides programs and services for breast cancer patients or funds breast cancer research.
- Keep your eyes open for opportunities to support breast cancer. The manufacturers of many of the everyday products that you use donate a portion of the proceeds to research. Every little bit that you do (one dollar or one hour of time) can make a difference in the fight against breast cancer.
- You can also make a financial donation to Virtua Foundation in support of the Penn Medicine Virtua Cancer Program where you received treatment. Gifts designated to oncology can benefit patients in many ways. They often help pay for genetic counseling, provide wigs, scarves and hats during chemotherapy, or offset prescription and transportation costs to patients who cannot otherwise afford it. For information on how you can help, please call 856.355.0830 or visit us online at www.foundation.virtua.org.