

YOUR GUIDE TO BREAST RECONSTRUCTION

Understanding Your Options, Recovery, and Transformation



Chris Devulapalli, MD | Michael Sosin, MD

www.specializedplasticsurgery.com

WELCOME TO SPECIALIZED PLASTIC SURGERY

We understand that breast reconstruction is not just about restoring your physical appearance - it's about helping you feel whole again. We are honored to be a part of your journey and are committed to providing compassionate, expert care every step of the way.

Preparing for surgery can be overwhelming. This guide was created to answer your questions, address your concerns, and provide clarity about your options. It includes detailed information about each step of the reconstruction process, from consultation to recovery.

Our goal is to empower you with knowledge and confidence as you make decisions about your care.

Our practice is built on the principles of compassion, innovation, and excellence. Our team is dedicated to delivering care that is as personal as it is professional. From your initial consultation to your final follow-up, we strive to provide a welcoming and nurturing environment where your voice is heard, your concerns are addressed, and your unique needs are met.

We understand that no two patients are the same. That's why we take the time to get to know you - not just your medical history, but your hopes, your goals, and concerns. Our approach is tailored to you. Our ultimate goal is to help you feel whole again, physically and emotionally, and to achieve results that are as beautiful as they are functional.

At Specialized Plastic Surgery, you are never alone. We are proud to stand by your side as you take this important step, and we look forward to helping you restore not only your physical form but your sense of confidence and well-being.

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Introduction to Breast Reconstruction

Breast reconstruction is performed by a board-certified plastic surgeon to restore form and function to your breast after cancer removal. The process involves close coordination with your breast surgeon to provide the best outcome.

The amount of breast tissue excised during surgery is dependent on the cancer diagnosis. The amount of tissue we plan to remove will categorize you into one of two pathways: **breast conservation therapy** versus **mastectomy**.

Breast conservation therapy is ideal for patients with small, single location tumors, patients who have larger breasts, and patients who can tolerate radiation after surgery. Plastic surgeons are often involved to internally rearrange tissue if more than 10% of the total volume of breast tissue is excised. Otherwise, severe asymmetry and dimpling after the recovery period is over may occur.

Mastectomy is suitable for patients with larger tumors, and those who would rather not have radiation after surgery if they do not have to. Some patients who have genetic risk factors may elect to have a prophylactic (preventative) mastectomy to limit the future chance of developing breast cancer. When having a mastectomy, the reconstruction options available are based on your body's anatomy. Generally speaking, reconstruction is either prosthetic-based or autologous (from your own tissue). Prosthetic-based reconstruction may be with an implant or with a tissue expander. A tissue expander is a temporary device, that is replaced by an implant at a later date. Autologous reconstruction may take tissue from your back, abdomen, or thighs to recreate the breast.

Reconstruction options are influenced by several factors including:

- Breast cancer treatment
- Health history
- Body shape and composition
- Personal preferences

Introduction to Breast Reconstruction

Timing of Reconstruction: Immediate vs. Delayed

When considering breast reconstruction, the timing of your surgery is an important decision and is typically categorized as either immediate or delayed reconstruction. Both options offer distinct advantages, and the right choice for you will depend on your personal preferences, overall health, cancer treatment plan, and goals for the reconstruction.

Immediate Reconstruction

Immediate breast reconstruction is performed at the same time as your mastectomy, or in some cases, during your lumpectomy. The primary advantage of immediate reconstruction is that it allows you to restore your breast shape right away, reducing the emotional and physical impact of losing a breast. It also reduces the number of trips to the operating room, simplifying your recovery process. However, the immediate reconstruction requires careful coordination with your breast cancer surgeon and may not be an option for all patients, especially if you need to undergo additional treatments such as chemotherapy or radiation after your mastectomy.

Considerations for Immediate Reconstruction

- **Coordination with Cancer Treatment:** If you plan to receive chemotherapy or radiation, the timing of reconstruction may be affected. In some cases, radiation can interfere with healing, which is why delayed reconstruction may be recommended.
- **Healing and Recovery:** While immediate reconstruction may reduce the need for a second surgery, the recovery process could be more complex as it involves both the mastectomy and reconstruction at the same time.
- **Emotional Impact:** Some patients prefer to have reconstruction immediately to preserve body image and feel more whole during their recovery from cancer treatment.

Introduction to Breast Reconstruction

Delayed Reconstruction

Delayed breast reconstruction is performed after you've completed all cancer treatments, including chemotherapy and radiation. This option gives you time to heal from the mastectomy and recover from any treatments before undergoing the reconstruction. It may be a better choice if you need additional treatments or if you prefer to take more time to make decisions about your reconstruction options.

Considerations for Delayed Reconstruction

- **Timing:** This allows you time to focus solely on your cancer treatment and recovery before undergoing breast reconstruction. However, it does mean that you will live without a breast for a period of time.
- **Secondary Procedures:** In some cases, the tissue may change after mastectomy, and additional procedures may be required to optimize the results.
- **Healing:** By waiting for reconstruction, you give your body more time to heal and may also have a clearer idea of how treatments like radiation have impacted your body.

Both immediate and delayed reconstruction can provide excellent outcomes, but your choice will depend on various factors. Your care team at Specialized Plastic Surgery will guide you through this decision, helping you choose the option that aligns with your goals and provides the best possible outcome.

Types of Breast Reconstruction

Deciding on the best approach to breast reconstruction is a deeply personal choice influenced by your individual health history, cancer treatment plan, and personal preferences. Our experienced team is here to guide you through this process, ensuring you feel confident and informed every step of the way. Together, we will evaluate your options, discuss your goals, and develop a tailored plan that prioritizes your well-being, aesthetic preferences, and long-term outcomes. Remember, there is no “one-size-fits-all” approach - our goal is to help you make the choice that feels right for you.

Prosthetic-Based Reconstruction: Uses silicone or saline implants to create the shape of the breast. May be performed immediately during mastectomy or as a delayed procedure.

- **Procedure:** Often involves a two-step process: placing a tissue expander to stretch the skin, followed by implant placement. In some cases, direct-to-implant reconstruction is an option.
- **Recovery:** Typically quicker than natural tissue reconstruction.
- **Advantages:** Shorter surgery time, no donor site, and relatively straightforward recovery.
- **Considerations:** Implants may need replacement over time, and there is risk of complications like capsular contracture or implant rupture.
- **Ideal Candidate:** Patients without significant radiation therapy or extensive chest wall scarring.
- **Advanced Techniques Offered:** Use of acellular dermal matrix (ADM) to support implants, pre-pectoral implant placement to minimize discomfort.

Types of Breast Reconstruction

Natural Tissue (Flap) Reconstruction: Utilizes tissue from the patient's own body to reconstruct the breast. Common donor sites include the abdomen (DIEP flap), thighs (PAP flap), or back (Latissimus Dorsi flap). DIEP flap is the most popular option, using abdominal fat and skin while sparing muscles.

- **Procedure:** Longer and more complex than implant-based reconstruction, requiring microsurgery to reconnect blood vessels and nerves.
- **Recovery:** Longer recovery time but results feel more natural and are permanent.
- **Advantages:** No implants required, and results can adapt with the body over time.
- **Considerations:** Requires sufficient donor tissue and results in scarring at the donor site.
- **Ideal Candidate:** Patients who prefer a natural look and feel, or those who have undergone radiation therapy.
- **Advanced Techniques Offered:** Resensation® to restore nerve function and sensation, enhanced recovery protocols to reduce downtime.

Reconstruction After Lumpectomy (Oncoplastic Surgery): Combines cancer surgery with plastic surgery techniques to reshape and restore the breast after a lumpectomy.

- **Procedure:** May involve rearranging remaining tissue or using a small flap for volume restoration.
 - **Advantages:** Maintains breast symmetry and appearance after breast-conserving surgery.
 - **Considerations:** Best results are achieved when planned in collaboration with the oncology team.
 - **Ideal Candidate:** Patients undergoing breast-conserving surgery who wish to avoid deformities or asymmetry.
-

Types of Breast Reconstruction

Aesthetic Flat Closure: A surgical option for patients who choose not to pursue traditional breast reconstruction; Involves contouring and smoothing the chest wall for a flat, symmetrical appearance.

- **Procedure:** Removes excess skin and tissue to create a natural, flat contour.
- **Advantages:** Simplifies recovery and avoids risks associated with implants or flap reconstruction.
- **Considerations:** May require revision to address residual tissue or scarring.
- **Ideal Candidate:** Patients who prefer not to pursue breast mound reconstruction.

Revisional Breast Reconstruction: Improves results from previous reconstruction surgeries.

- **Procedure:** May involve correcting asymmetry, replacing implants, or addressing complications like scar tissue.
- **Advantages:** Enhances aesthetics, comfort, and satisfaction.
- **Considerations:** Tailored to the individual's unique concerns and anatomy.
- **Ideal Candidate:** Patients unhappy with or experiencing complications from prior reconstruction.

Hybrid Reconstruction: Combines natural tissue reconstruction with implants for volume and symmetry.

- **Procedure:** Uses a smaller flap of natural tissue supplemented with an implant to achieve desired breast size and shape.
- **Advantages:** Provides the benefits of both techniques, including natural appearance and volume enhancement.
- **Considerations:** Combines recovery elements of both approaches.
- **Ideal Candidate:** Patients with limited donor tissue who desire larger reconstructed breasts.

Prosthetic-Based Reconstruction

Expander/Implant Based Reconstruction vs. Direct to Implant Reconstruction

Prosthetic-based breast reconstruction is a popular option that uses implants to rebuild the breast mound after mastectomy. There are two main pathways for prosthetic reconstruction: expander/implant reconstruction and direct-to-implant reconstruction. Each option offers unique benefits and is tailored to fit individual patient needs, health conditions, and surgical goals.

Expander/Implant Reconstruction

Expander/implant reconstruction is a two-step process that typically takes place over several months. It is often recommended for patients who may not have enough skin or tissue for immediate implant placement or who need additional tissue expansion for an optimal result.

The Process:

- **Tissue Expander Placement:** In the first step, a temporary tissue expander is placed under the chest muscle (pectoralis) during the mastectomy. This expander is an inflatable device that gradually stretches the skin and muscle to create space for the permanent implant.
- **Gradual Expansion:** Over a period of weeks or months, saline solution is injected into the expander during follow-up visits to gradually expand the skin and tissue. This process is carefully managed to avoid discomfort and ensure the expansion is even and controlled.
- **Final Implant Placement:** Once the desired amount of tissue has been stretched, the expander is removed, and a permanent implant is placed in the same location. This procedure typically requires a second surgery.

Prosthetic-Based Reconstruction

Considerations for Expander/Implant Reconstruction:

- **Longer Timeline:** Because this is a two-step process, it can take several months to complete, especially if you require more time for tissue expansion.
- **Multiple Surgeries:** Some patients may need additional surgeries to achieve the desired shape and size.
- **Comfort and Adjustments:** The expander can be uncomfortable initially, as it gradually stretches the skin and muscle. However, pain management strategies can help alleviate discomfort.

Direct-to-Implant Reconstruction

Direct-to-implant reconstruction, also known as single-stage reconstruction, is a faster approach that places a permanent breast implant at the time of the mastectomy. This procedure is typically recommended for patients who have enough healthy tissue and skin for immediate implant placement and are good candidates for this approach.

The Process:

- **Implant Placement:** During the mastectomy, a breast implant is placed directly into the chest tissue or under the muscle. This can be done either above or below the chest muscle, depending on your body type and the amount of tissue available.
- **One Surgery:** With direct-to-implant reconstruction, patients only undergo one surgery, as opposed to two with expander/implant reconstruction.

Prosthetic-Based Reconstruction

Considerations for Direct-to-Implant Reconstruction:

- **Less Recovery Time:** Since there is no tissue expander involved, this method generally requires less recovery time and fewer follow-up visits for tissue expansion.
- **Ideal Candidates:** Direct-to-implant reconstruction is best suited for women with sufficient skin and tissue coverage, as it eliminates the need for tissue expansion. Patients who require radiation therapy may not be ideal candidates for direct-to-implant reconstruction, as radiation can affect the skin and tissue, leading to complications.
- **Aesthetic Outcome:** While direct-to-implant may provide a quicker cosmetic result, the aesthetic outcome may be influenced by factors such as skin elasticity and the amount of tissue available. Some patients may need additional procedures (e.g., fat grafting or nipple reconstruction) for optimal results.

Which Option is Right for You?

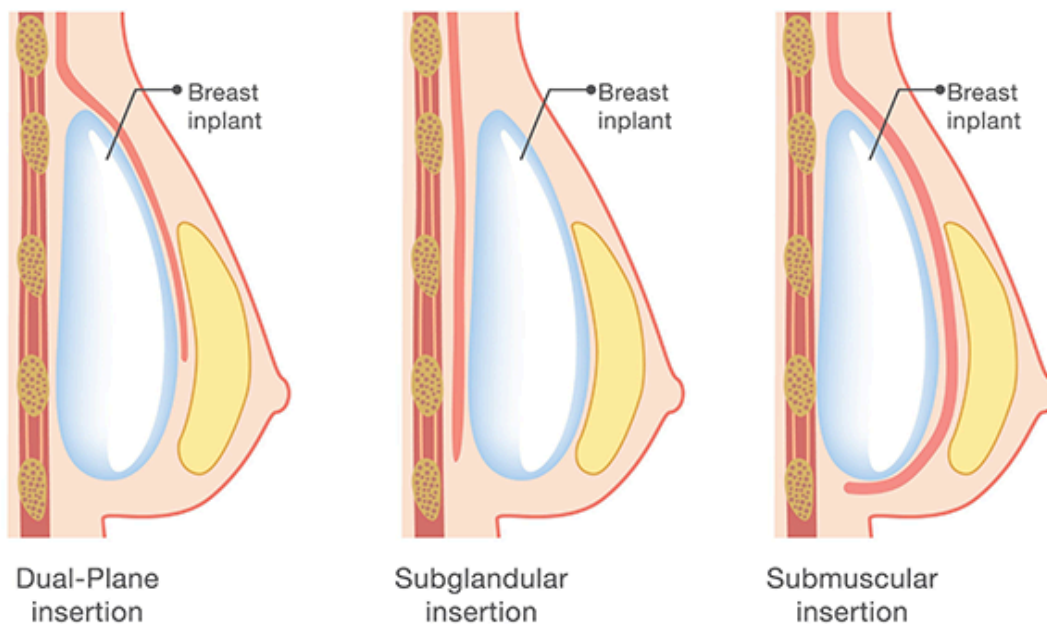
The choice between expander/implant reconstruction and direct-to-implant reconstruction depends on your unique situation, including the amount of skin and tissue available after mastectomy, your overall health, and your preferences for timing and recovery. Your care team at Specialized Plastic Surgery will work with you to evaluate all factors and determine which pathway is most suitable for achieving your desired outcome.

Both options offer excellent results, and we are committed to helping you achieve a breast reconstruction that restores both your body and your confidence.

Prosthetic-Based Reconstruction

Implant Placement in Breast Reconstruction

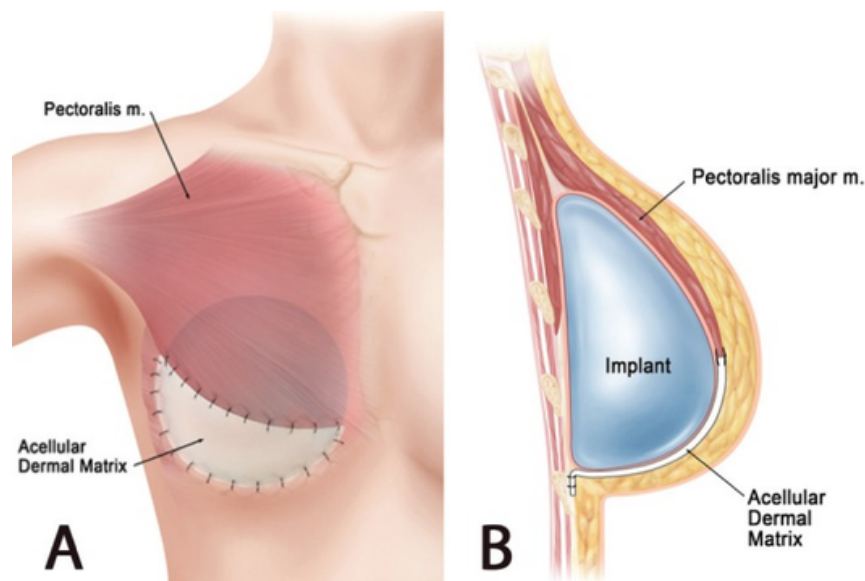
Traditionally, **total muscular coverage**, also known as submuscular placement, was the standard approach for breast reconstruction. In this method, the implant was placed entirely beneath the chest muscles, primarily the pectoralis major muscle, along with other surrounding muscles. This technique provides excellent coverage for the implant, especially for patients with thinner skin or less natural tissue. It also reduces the risk of visible implant edges or rippling and offers added protection for the implant. However, this technique often involves significant muscle manipulation, resulting in longer recovery times and more initial tightness or discomfort for patients.



About 15 years ago, advancements in surgical techniques introduced the use of **acellular dermal matrix (ADM)**. ADM is a specially processed tissue matrix that is used to recreate the breast shape, while providing additional support and coverage during breast reconstruction. It has allowed for larger implants and faster, more comfortable expander filling sessions.

Prosthetic-Based Reconstruction

ADM revolutionized implant-based reconstruction by allowing for **partial submuscular coverage (dual plane)**. This approach places the upper part of the implant under the chest muscle, while the lower part rests directly under the skin and subcutaneous tissue. This approach combines the benefits of muscular coverage with a more natural slope and appearance of the breast, reducing some of the limitations of total muscular coverage while still ensuring implant stability.



Compared to total muscle coverage, partial submuscular coverage offers several advantages, including increased expansion volume, improved cosmetic outcomes, and reduced post-operative pain. However, both total and partial submuscular placements share a common drawback known as “animation deformity”. This occurs when movements or actions that engage the chest muscles cause the implants to shift or displace.

For women who are highly active or frequently engage their chest muscles, animation deformity can be bothersome. On the other hand, some women find it to be a minor concern or not problematic at all. Despite this potential limitation, total muscular and partial submuscular placements remain the two most commonly performed methods for implant-based breast reconstruction due to their reliable outcomes and adaptability to various patient needs.

Prosthetic-Based Reconstruction

In the past 5 years, the development of **prepectoral placement**, also called subglandular placement, has emerged as the latest innovation in breast reconstruction. With this technique, the implant is placed directly under the skin and natural tissue (above the chest muscle), often supported by ADM to provide coverage and contour. Prepectoral placement eliminates the need for muscle manipulation, offering patients a faster recovery, reduced post-operative pain, and a more natural feel and appearance long-term.

Complete implant coverage with acellular dermal matrix (ADM) offers the benefit of potentially reducing the risk of capsular contracture, particularly in patients who have undergone radiation therapy. However, this technique requires optimal blood flow to the mastectomy flaps and a low risk of infection to ensure successful reconstruction. For patients who are not ideal candidates, complications such as flap loss or failure of reconstruction may occur.

Additionally, because prepectoral placement lacks muscle coverage, the soft tissue over the implant is thinner, which can lead to a phenomenon called “rippling”. This occurs when the edges or ridges of the implant become visible, most commonly along the upper inner part of the breast. Rippling is more noticeable when leaning forward without a supportive bra. While fat grafting or other additional procedures can help minimize the appearance of rippling, it may not be completely eliminated. It’s important to note that not every patient may be a candidate for this advanced technique. Your surgeon will carefully evaluate your individual circumstances and help determine if prepectoral implant placement is the right choice for you.

Prosthetic-Based Reconstruction

Radiation and Implant-Based Reconstruction

Patients who have received or will require radiation therapy may not be ideal candidates for implant-based reconstruction due to the unique challenges posed by radiation. Radiation can significantly affect the skin and underlying tissues, making them less elastic and more prone to complications such as poor healing, infection, and capsular contracture (the formation of scar tissue around the implant).

Additionally, radiation therapy can increase the risk of implant-related complications, such as implant displacement or deformation, and may compromise the overall aesthetic outcome. For these reasons, your surgeon may recommend alternative options, such as natural tissue (autologous) reconstruction, which tends to be more resilient to the effects of radiation.

It's essential to discuss your medical history, radiation treatment plan, and reconstructive goals with your care team. They will help you determine the best approach to ensure a safe and satisfying outcome.

Prosthetic-Based Reconstruction

Implant Rupture

Breast implant rupture occurs when the outer shell of an implant is damaged, leading to the leakage of its contents. This issue is relatively rare and often not an immediate health concern but does require medical evaluation and typically necessitates surgical replacement of the implant.

The effects of rupture can vary depending on the type of implant. With saline implants, the sterile saline solution leaks out and is absorbed by the body, causing the breast to deflate noticeably. Silicone implants, on the other hand, contain a cohesive gel that does not leak and stays in place, making ruptures less obvious and harder to detect without imaging tests like MRIs or ultrasounds.

Ruptures can result from aging of the implant, trauma, or external compression. While not an emergency, any suspected implant rupture should be promptly evaluated by your surgeon, who can recommend the best course of action. To reduce the risk of rupture, it's important to follow your surgeon's care recommendations, and attend regular check-ups.

The FDA states that the life span of implants is 10 years. The rate of implant rupture is approximately 1% per year.

Prosthetic-Based Reconstruction

Capsular Contracture

Capsular contracture is a condition that can occur after breast implant surgery, where the body forms excessive scar tissue around the implant. Normally, a thin layer of scar tissue, or “capsule”, develops around the implant as part of the natural healing process. However, in some cases, this capsule thickens and tightens too much, causing the implant to feel firm or hard, altering its shape, and sometimes leading to discomfort or pain. In some severe cases, capsular contracture may require additional surgery to address these issues.

The exact cause of capsular contracture is not fully understood, but several factors may increase the risk. Inflammation or infection, even on a small scale, can trigger an overactive healing response. Bleeding near the implant, radiation therapy, or trauma to the chest after surgery can also contribute to the development of this condition.

Symptoms of capsular contracture can range from mild to severe. In its early stages, the breast may feel slightly firm but still appear natural. As the condition progresses, the implant can become harder, distorted in shape, or uncomfortable. In the most advanced cases, the breast may feel very hard, appear visibly deformed, and cause pain.

Treatment for capsular contracture depends on the severity of the condition. Mild cases may be managed with massage, medications, or other non-surgical techniques. More severe cases, however, often require surgical intervention to remove or release the scar tissue (a procedure known as capsulectomy) and, in some cases, replace the implant.

Although capsular contracture cannot always be prevented, there are ways to reduce the risk. Choosing the appropriate implant type and placement technique, incorporating acellular dermal matrix (ADM) during reconstruction, and following all post-operative care instructions are key strategies. Your surgeon will take these precautions are discuss your individual risk factors to help minimize the likelihood of developing capsular contracture.

Prosthetic-Based Reconstruction

The Recovery Process

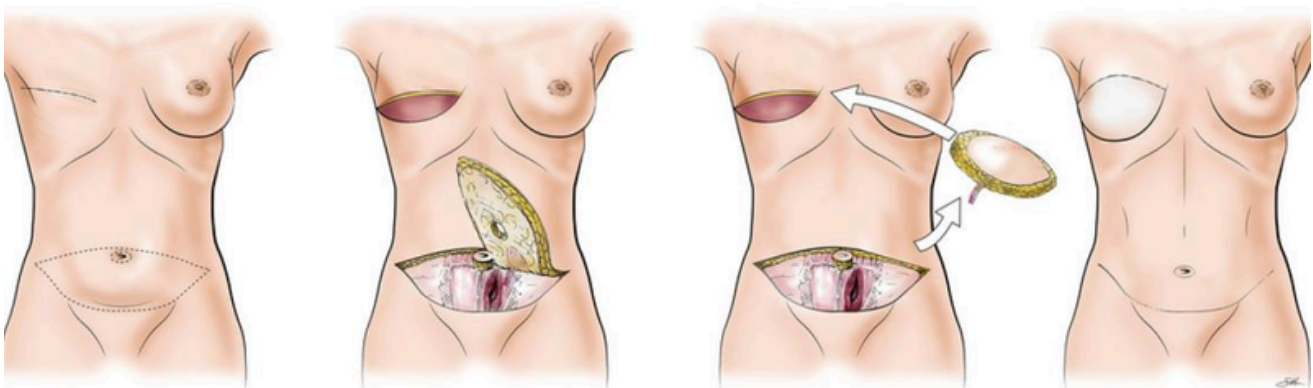
After implant-based reconstruction surgery, it is common to have 1-2 surgical drains placed near the side of your breasts. These are positioned discreetly along the bra line for comfort and concealment. The purpose of the drains is to remove excess fluid and help reduce swelling during the initial recovery phase. Typically, drains are kept in place for 2-3 weeks and are removed once their output is less than 30ml per day for two consecutive days.

Recovery times can vary depending on the specific surgical technique used. Patients often start feeling more like themselves within a week, with recovery being shorter if the implant is placed above the muscle compared to under the muscle. Gentle movement is encouraged, and you should begin walking as soon as you are awake from anesthesia to promote circulation and healing.

Strenuous activity, including cardiovascular exercise or anything that increases your heart rate above 100 bpm, should be avoided for 2-3 weeks after surgery. Activities that pose a risk for physical trauma, including sexual activity, should be avoided for 4-6 weeks to ensure optimal healing. Your care team will provide personalized recommendations to support your recovery,

Natural Tissue Reconstruction

Natural tissue reconstruction, also known as **free flap reconstruction**, is a type of breast reconstruction that uses a patient's own tissue to create a new breast mound after a mastectomy. This tissue, which typically includes skin, fat, and sometimes muscle, is taken from another part of the body, such as the abdomen, thigh, back, or buttocks. The most common type of free flap procedure is the **DIAP flap** (deep inferior epigastric perforator flap), which uses tissue from the lower abdomen without taking any muscle. Other options include the PAP flap (profunda artery perforator flap) from the thigh or the SGAP flap (superior gluteal artery perforator flap) from the buttocks. The choice of flap depends on the patient's body type, health, and reconstructive needs.



Free flap reconstruction gets its name because the tissue used to reconstruct the breast is completely detached - or “freed” - from its original location in the body before being transplanted to the chest. Unlike “pedicled flaps”, where the tissue remains connected to its original blood supply, a free flap requires microsurgery to reconnect the blood vessels in the chest. This meticulous process ensures the tissue receives adequate blood flow in its new location, allowing it to survive and thrive as part of the reconstructed breast.

Natural Tissue Reconstruction

This technique creates a natural look and feel, as the reconstructed breast is made entirely of the patient's own tissue. It is often an excellent choice for patients who want to avoid implants or who have undergone radiation therapy, as it is less affected by the long-term complications associated with implants. While free flap reconstruction is a more complex procedure with a longer recovery time, it provides durable, long-lasting results that many patients find to be worth the investment in time and healing.

Types of Free Flaps

Generally speaking, the different types of free flaps are named after the arteries that provide blood supply to the flap. The following table represents the locations where flaps are from, and the name that is given to these flaps. The following donor sites have proven to be well suited for breast reconstruction.

Abdomen	DIEP - Deep Inferior Epigastric Artery Perforator Flap MS-TRAM - Muscle Sparing Transverse Rectus Abdominis Muscle Flap SIEA - Superficial Inferior Epigastric Artery Perforator Flap
Buttock	SGAP - Superior Gluteal Artery Perforator Flap IGAP - Inferior Gluteal Artery Perforator Flap
Thighs	TUG - Transverse Upper Gracilis Flap VUG - Vertical Upper Gracilis Flap

Natural Tissue Reconstruction

Microsurgery

The term “microsurgery” refers to the meticulous process of using specialized surgical microscopes and instruments to reconnect tiny blood vessels, often less than 2-3 millimeters in diameter, from the transferred tissue to vessels in the chest. Free flaps from the breast are generally reconnected into the internally mammary vessels (which are the same vessels used for coronary bypass surgery). This ensures that the flap receives proper blood flow and remains viable after transplantation. The surgeon identifies and isolates donor site blood vessels (arteries and veins), then delicately sutures them to recipient site vessels using ultra-fine sutures. This level of precision requires advanced skill to ensure the tissue integrates successfully with the body. Microsurgery not only restores breast shape and symmetry but also provides natural movement, feel, and function.

Preserving Sensation with Resensation®

During DIEP flap breast reconstruction, our expert surgeons utilize advanced nerve grafting technology called Resensation® to help restore feeling to the reconstructed breast. During a mastectomy, nerves that supply sensation to the breast skin and tissue are cut, leading to numbness in the chest area. Using Resensation®, our surgeons carefully identify these severed nerves and reconnect them to nerves within the transplanted tissue using microsurgical techniques. This precise process promotes the gradual regrowth of nerve fibers into the reconstructed breast, enabling the return of sensation over time. Nerves typically regenerate at a rate of about 1 millimeter per day meaning patients may begin to notice changes in sensation within months, with continued improvement over 1-2 years. This groundbreaking technique enhances both the aesthetic and functional outcomes of breast reconstruction. Additional details about Resensation® and its benefits will be explored later in this guide.

DIEP Flap

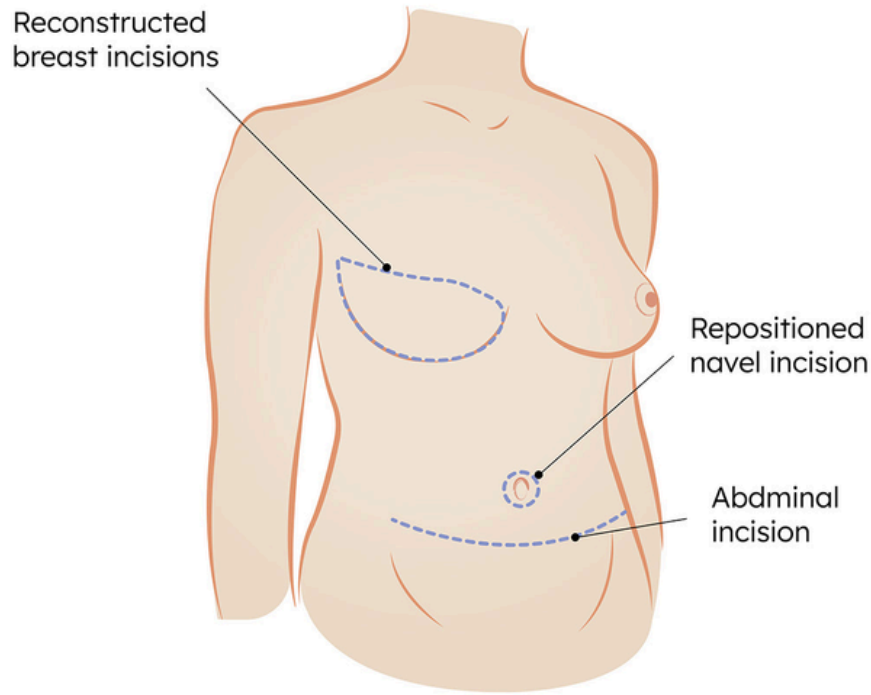
While a DIEP flap procedure and a tummy tuck may seem similar because both involve removing skin and fat from the lower abdomen, they are not the same. A DIEP flap is a specialized breast reconstruction technique that transfers tissue, including skin and fat, from the abdomen to create a new breast mound. During this process, the donor site is also contoured, which can provide a flatter, smoother abdominal appearance, similar to the cosmetic benefits of a tummy tuck. However, the primary goal of a DIEP flap is breast reconstruction, not abdominal aesthetics.

It is important to inform your surgeon if you have had any previous abdominal surgeries, such as a C-section or hernia repair, as these procedures could have affected the blood vessels that are essential for nurturing the flap. Damaged or missing blood vessels might limit your eligibility for a DIEP flap or require adjustments to the surgical plan. Your surgeon will carefully evaluate your medical history and perform imaging studies to assess the condition of your abdominal blood vessels and determine the best approach for your reconstruction.

Good Candidates for DIEP Flap

Those with sufficient abdominal skin and fat are good candidates for DIEP flap reconstruction. If your abdomen is too large (body mass index greater than 30), you have a 10-12% overall risk of healing complications compared to 4-10% of individuals with a BMI of less than 30. Complications can include your abdominal incision not healing, hernia/bulge at the abdomen, or in rare cases infection. Smokers also have an increased incidence of abdominal wound complications, up to 25% in some studies. Patients with a history of blood clotting disorders also require special attention in flap reconstruction. Please let your surgeon know if you have a history of blood clots or a family history of blood clots/thinners.

DIEP Flap



Incisions and Scarring

In a DIEP flap reconstruction, incisions are made both at the donor site (lower abdomen) and on the chest where the breast is being reconstructed. The abdominal incision runs horizontally from hip to hip, similar to the placement of a tummy tuck scar, and another incision is made around the belly button to preserve its appearance. On the chest, the incisions depend on the mastectomy pattern and whether any skin from the breast is preserved. While scars are an inevitable part of the healing process, they generally fade over time and can often be concealed under clothing (including bras and swimsuits). Your surgical team will provide guidance on scar care, including topical treatments and techniques to help minimize their appearance. Many patients find the results of reconstruction, combined with the improved contour of the donor area, to outweigh concerns about scarring.

DIEP Flap

The Recovery Process

After DIEP flap reconstruction, you will have 1-2 drains in your abdomen and 1 drain in each reconstructed breast. The purpose of the drains is to remove excess fluid and help reduce swelling during the initial recovery phase. Typically, drains are kept in place for 2-3 weeks and are removed once their output is less than 30ml per day for two consecutive days.

Patients can expect to spend 3-4 days in the hospital after surgery. You can expect to experience some abdominal, chest, and surgical drain site discomfort initially. Gentle movement is encouraged, and you should begin walking as soon as you are awake from anesthesia to promote circulation and healing. You may need assistance during the first week. Most people are able to return to light duty in 3 weeks. You may not drive if you take opioid or muscle relaxant medication. Do not place your seatbelt directly over your chest area.

Strenuous activity, including cardiovascular exercise or anything that increases your heart rate above 100 bpm, should be avoided for 2-3 weeks after surgery. Activities that pose a risk for physical trauma, including sexual activity, should be avoided for 4-6 weeks to ensure optimal healing. Your care team will provide personalized recommendations to support your recovery.

Some patients may experience tightness in their abdomen that results in a slight bend forward in their posture during the first few weeks post-surgery. This will gradually diminish. Some patients may also notice weakness in their abdominal core up through 3 months. The common complaints initially may be difficulty rising from bed or standing up from sitting in a chair. Strength generally returns by 6 months. After you are cleared to resume full activity, it is important that you resume reasonable physical exercise.

For the first few weeks, you may not sleep on your side. Most patients find comfort in sleeping propped with several pillows or in a recliner chair. Do not place pressure on your reconstructed breast with any objects whatsoever, Keep animals away from your wounds.

DIEP Flap

Recognizing and Responding to Free Flap Issues After Discharge

After free flap breast reconstruction, it is crucial to monitor the reconstructed tissue closely for any signs of complications. While the success rate for free flaps exceeds 95-97% at most medical centers, rare issues such as blood clots in the flap's artery or vein can threaten the flap's viability. Most microvascular complications occur within the first 72 hours post-surgery, which is why patients remain hospitalized during this critical period for observation. However, complications can still arise after discharge, making it essential to recognize warning signs and contact your surgeon immediately if they occur. Timely intervention is the key to saving the flap if a problem develops.

The two most common causes of flap failure are venous and arterial issues:

- **Venous Complications:** Veins carry blood away from the tissue. If the flap's veins become blocked (thrombosis) or cannot keep up with blood flow (insufficiency), the tissue becomes congested.

Warning signs include:

- Increased pain or a feeling of tightness in the flap
- Swelling or tense tissue in the reconstructed area
- Darkening or purple discoloration of the flap
- Brisk capillary refill (less than 2-3 seconds)
- Dark or increased bleeding from the incision line
- Cool temperature of the flap
- Sudden increase in dark drainage from surgical drains on the affected side

DIEP Flap

- **Arterial Complications:** Arteries supply oxygen-rich blood to the tissue. If the flap's artery becomes blocked or kinked, the tissue will suffer from insufficient oxygen (ischemia).

Warning signs include:

- Pale or white discoloration of the flap
- Sluggish or absent capillary refill (taking longer than 2-3 seconds)

Key Takeaway: Venous and arterial complications are a medical emergency. Contact your surgeon immediately if these changes are observed. Prompt recognition and action are crucial to preventing free flap failure. The sooner the issue is identified and treated, the greater the chance of saving the flap.

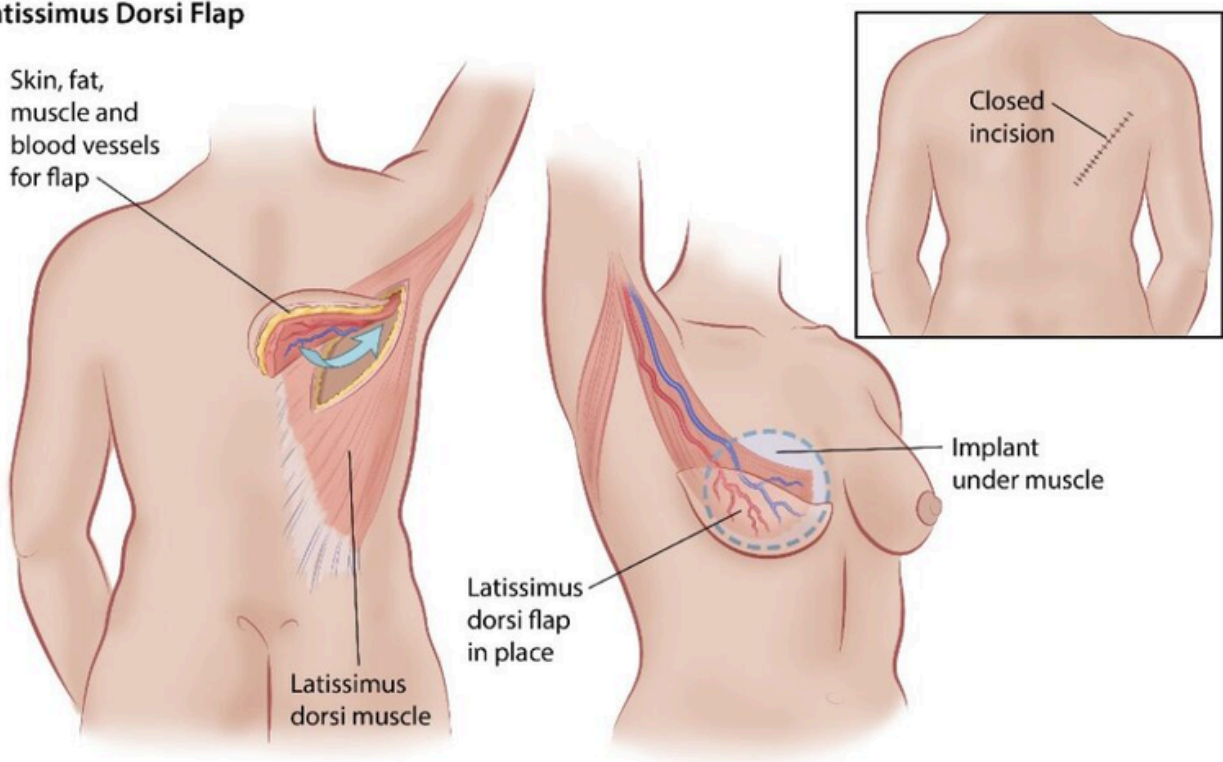
LIFT Procedure

The LIFT Procedure

LIFT stands for **L**atissimus dorsi **I**mmEDIATE **F**at **T**ransfer. A LIFT reconstruction using the latissimus dorsi is a type of breast reconstruction that involves using the latissimus dorsi muscle (or “Lat”), to recreate the breast mound. This technique is often used when there is insufficient tissue in the chest area for reconstruction, or when a more natural and durable result is desired. In this procedure, the latissimus dorsi muscle is partially or fully detached from its original attachment in the back and then rotated to the front of the chest, where it is used to create the breast mound.

This type of reconstruction can be particularly beneficial for patients who have had a mastectomy or significant tissue removal due to cancer but want to avoid using an implant-based approach. While the latissimus dorsi muscle provides additional tissue for reconstruction, a lift is also performed to enhance the breast’s shape.

Latissimus Dorsi Flap



LIFT Procedure

Fat Transfer or Implant

To increase breast volume and projection, fat from your own body may be obtained from liposuction and injected into the flap prior to transfer. Usually, we take fat from the abdomen or thighs. As a surprise to many patients, areas that seem large may not have as much fat as you think. Patients without much fat to transfer may have an implant placed under the latissimus dorsi muscle instead to give additional volume.

Incision and Scarring

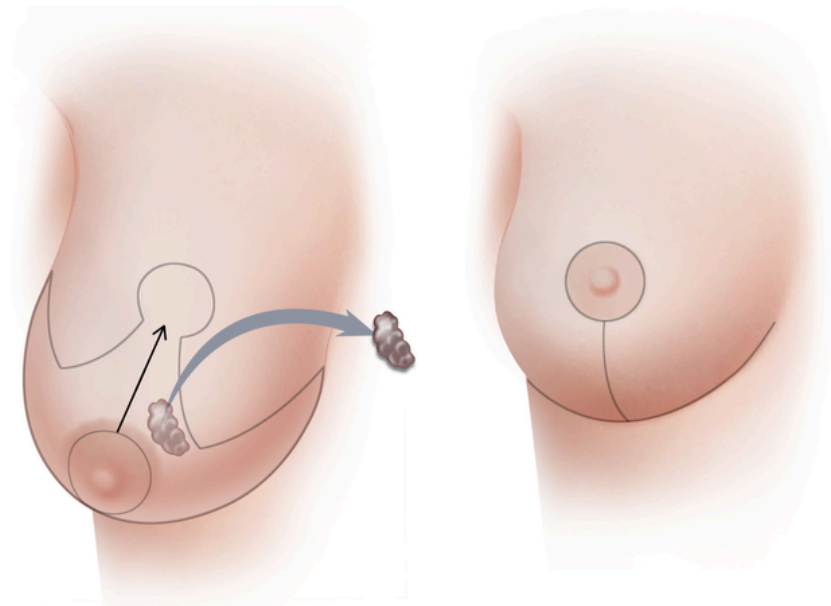
This procedure typically requires two incisions - one in the back where the muscle is harvested and one in the chest where the muscle is repositioned. We take extra precautions to reduce scar appearance. We utilize a three-layer closure to close your skin and a tissue adhesive with mesh to reduce tension on the wound. While scarring is generally satisfactory in our patients, everyone scars differently. Scar revisions and treatments are always possible after the initial procedure as well. Please consult with your plastic surgeon for more information.

The Recovery Process

In the initial stages after surgery, more than half of patients experience difficulty with activities that involve stretching the back, such as taking items from high cabinets, vacuuming, or lifting groceries. However, basic tasks like brushing hair tend to be less challenging. It's common to experience a 30% reduction in strength. Fortunately, by 6 months to a year after surgery, the muscles in the back adapt to compensate for the latissimus dorsi muscle, and strength typically returns to 90-95% of pre-surgery levels.

Patients undergoing this procedure typically have one drain placed in the breast and another at the back, where the muscle was harvested. The drain in the back generally remains in place for about 3-4 weeks, while the drain in the breast is usually removed after approximately 2 weeks, once the drainage is less than 30ml for 2 consecutive days.

Oncoplastic Reconstruction



Oncoplastic Reconstruction/Reduction is a surgical approach that combines principles of breast cancer surgery with aesthetic techniques to preserve or improve the appearance of the breast. This technique is often used in cases where a significant portion needs to be removed due to a tumor, and it aims to provide a more natural shape and symmetry post-surgery. Oncoplastic surgery may involve both a breast reduction (removal of tissue) and reconstruction (re-shaping or repositioning remaining tissue) to achieve optimal cosmetic results while ensuring the cancer is fully treated.

Using techniques from breast lift and reduction surgeries, plastic surgeons are able to recreate the shape of an aesthetically pleasing breast following cancer excision. Oncoplastic reconstruction may also include a matching procedure to the other side/breast.

This type of surgery is especially beneficial for women who require a lumpectomy or partial mastectomy but want to avoid the cosmetic deformities often associated with more traditional breast cancer surgery. If the amount of tissue removed makes up 10% or more of the total breast volume, a plastic surgeon will be involved to rearrange the remaining breast tissue.

Oncoplastic Reconstruction

Not all patients are candidates for oncoplastic reconstruction. The following criteria are necessary:

- Small tumor at a single site
- Larger breast size
- Ability to obtain negative (clear) margins by the breast surgeon
- Compliance and ability to undergo radiation therapy
- No history of collagen vascular disease or previous radiation
- Not currently pregnant
- Not currently smoking

Nipple Preservation

During oncoplastic reconstruction, the nipple can often be preserved if the tumor is not located near it. In some cases where the nipple cannot be saved due to the extent of tissue removal, it may be relocated to a more natural position on the breast. In some instances, the nipple may also be reconstructed using tissue from the breast or other areas of the body, and areolar tattooing can be performed later to complete the aesthetic result. Your surgeon will discuss the best approach based on your individual case and preferences.

Symmetry

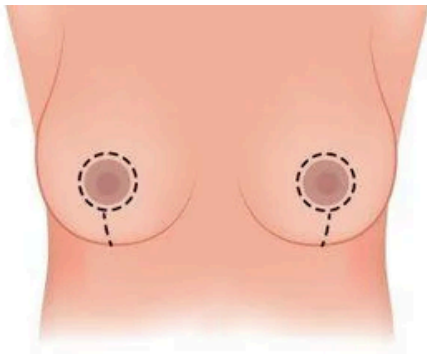
We typically perform reductions to the non-cancer side breast to match the final size of the breast with the excised cancer. Because radiation may shrink the size of the breast with excised cancer, typically the non-cancer breast will appear 5-10% smaller immediately after surgery. After radiation, they will become more symmetrical. Depending on your preference and the surgical timeline, we may perform the reduction in a second stage and not at the time of the oncoplasty.

Oncoplastic Reconstruction

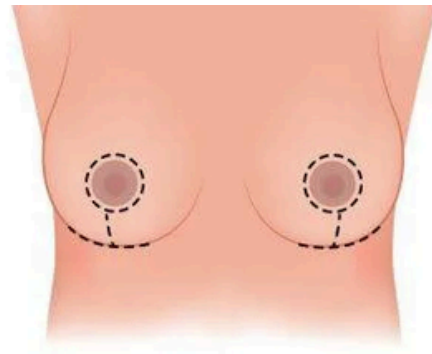
Incisions and Scarring

The type of incision used depends on the location and size of the tumor, as well as the desired cosmetic outcome. Common incisions include the “lollipop” incision, which circles the areola and extends vertically down to the breast crease, and the “anchor” incision, which includes the same vertical and horizontal components to remove more tissue while preserving the breast’s shape. Other techniques may involve more limited incisions depending on the extent of the surgery and whether the nipple is being preserved or repositioned. These incisions are strategically placed to minimize visible scarring and achieve the best aesthetic result.

“Lollipop” Incision



“Anchor” Incision



Oncoplastic Reconstruction

The Recovery Process

After oncoplastic reconstruction, you may have 1-2 surgical drains placed near the side of your breasts. These are positioned discreetly along the bra line for comfort and concealment. The purpose of the drains is to remove excess fluid and help reduce swelling during the initial recovery phase. Typically, drains are kept in place for 2-3 weeks and are removed once their output is less than 30ml per day for two consecutive days.

Recovery times can vary depending on the specific surgical techniques used. Patients often start feeling more like themselves within a week. Gentle movement is encouraged, and you should begin walking as soon as you are awake from anesthesia to promote circulation and healing.

Strenuous activity, including cardiovascular exercise or anything that increases your heart rate above 100 bpm, should be avoided for 2-3 weeks after surgery. Activities that pose a risk for physical trauma, including sexual activity, should be avoided for 4-6 weeks to ensure optimal healing. Your care team will provide personalized recommendations to support your recovery,

Revision Breast Reconstruction

Revision breast reconstruction is a secondary procedure aimed at improving the appearance, symmetry, or functionality of a previous breast reconstruction. Whether the initial reconstruction was implant-based or autologous (using the patient's own tissue), revisions can address concerns such as volume asymmetry, contour irregularities, or scarring. These procedures are highly individualized and tailored to each patient's unique anatomy and aesthetic goals.

Fat Grafting for Revisions

Fat grafting, also known as fat transfer, is a versatile technique often used during revision surgery to refine the results of both implant-based and autologous reconstructions. In this procedure, fat is harvested from another area of the patient's body - commonly the abdomen, thighs, or flanks - using liposuction. The fat is then purified and carefully injected into the breast to add volume, smooth contour irregularities, or improve the overall shape.

For implant-based reconstructions, fat grafting can help camouflage the edges of implants, soften transitions, and improve skin texture in areas where the tissue may be thin. In autologous reconstructions, fat grafting enhances the natural contour of the flap, fills in minor volume deficiencies, and achieves better symmetry. This technique is minimally invasive, offers the added benefit of body contouring at the donor site, and requires little downtime for recovery.

Nipple and Areolar Tattooing

Using advanced tattooing techniques, pigments are applied to the skin to create a natural and dimensional appearance of nipple and areola. This process is customized to match the patient's skin tone and personal preferences. Tattooing is performed as a standalone outpatient procedure as a last step in the breast reconstruction journey.

Your First Appointment

Your first appointment at Specialized Plastic Surgery is an important step in your breast reconstruction journey. During this visit, we aim to create a welcoming, supportive environment where you feel heard, informed, and confident about your next steps. Our goal is to empower you with knowledge and provide personalized recommendations tailored to your unique situation, health history, and goals.

What to Expect

- **Meeting Your Care Team:** You will meet with your board-certified plastic surgeon and our compassionate staff who specialize in breast reconstruction. We will take the time to get to know you, answer your questions, and discuss your priorities and concerns.
- **Medical History Review:** We will review your medical history, including any cancer treatments you've undergone or are currently receiving. This information is essential in determining the best reconstruction options for you.
- **Physical Examination:** A physical exam will be performed to assess your anatomy, tissue availability, and other factors that will influence your surgical plan.
- **Understanding Your Options:** Your plastic surgeon will explain the various options available. We will also discuss the timing of reconstruction, such as immediate or delayed procedures.
- **Visual Aids and Examples:** To help you visualize potential outcomes, we may share before-and-after photos, diagrams, and other resources tailored to your situation.

Your First Appointment

Preparing for Your First Visit

To make the most out of your appointment, we encourage you to:

- Bring a list of questions or concerns you would like to address
- Bring a list of current medications and supplements
- Provide details about your cancer treatment plan, including any upcoming surgeries, chemotherapy, or radiation therapy
- If possible, bring a trusted friend or family member for support and to help you remember important details from the conversation

What Happens Next

After your first appointment, we will work with you to create a personalized treatment plan that aligns with your medical needs and personal preferences. We will coordinate closely with your oncology team to ensure your reconstruction fits seamlessly into your overall cancer care.

You will receive special instructions about how to prepare for surgery and aftercare instruction for your recovery. Your surgical coordinator will schedule your surgery date and any additional appointments if necessary. Our team will handle all matters relating to insurance and billing you for - so you can focus on your care.

We're Here for You

At Specialized Plastic Surgery, we are committed to supporting you every step of the way. Your first appointment is just the beginning of a partnership focused on your comfort, confidence, and recovery. If you have any questions or need additional support after your visit, don't hesitate to reach out - we're here to help.

Scheduling Your Surgery

Scheduling your surgery is a collaborative effort that involves our team, your breast cancer surgeon, and other specialists to ensure the timing aligns with your overall treatment plan and medical needs.

Why Timing Matters

The timing of your breast reconstruction surgery depends on several factors, including:

- The type of reconstruction you choose (immediate or delayed)
- Your breast cancer treatment plan, such as whether you're undergoing chemotherapy or radiation therapy
- The need to coordinate with your breast cancer surgeon for procedures like mastectomy or lumpectomy

For patients opting for **immediate reconstruction**, surgery is typically scheduled to occur on the same day as your mastectomy or lumpectomy. This requires close collaboration between our surgical team and your breast cancer surgeon. If you're considering **delayed reconstruction**, your surgery date will be planned to accommodate your treatment and recovery timeline.

The Role of a Surgical Coordinator

PLEASE NOTE: The time of your procedure is subject to change up until the day prior to surgery and is dependent on availability in the OR and potential for emergency surgeries being added to the OR schedule. For this reason, our department cannot give an accurate surgery start time until **one week prior** to surgery, nor can we accommodate special requests for surgery start times. You will be called by a nurse in the pre-op department one to two days before your surgery to confirm your start time.

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The Role of a Surgical Coordinator

To simplify this process, your surgical coordinator is dedicated to managing all the details of your surgery. They will:

- Communicate with your breast cancer surgeon and oncology team to determine the best timing for your procedure
- Help secure an operating room and coordinate the schedules of all necessary medical professionals
- Keep you informed throughout the scheduling process and provide clear instructions to prepare for your surgery

Scheduling Your Surgery

Flexibility and Support

We understand that life and treatment plans can change. If adjustments to your surgery date are needed, our team will work with you and your care team to ensure everything remains aligned with your health and recovery goals.

We're Here to Help

At Specialized Plastic Surgery, we're committed to making the scheduling process as straightforward as possible. Your surgical coordinator is always available to answer questions, address concerns, and ensure you feel prepared and supported as you move forward with your breast reconstruction journey.

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Your Checklist

Use this summary checklist as a guide to what you need to do in order to prepare for your surgery and recover after surgery.

AS EARLY AS POSSIBLE BEFORE SURGERY
Call the Surgical Navigation Center at White Plains Hospital at (914)849-7119 for medical clearance ASAP. You will review your medical history and will be told if you need to stop or change any medication before surgery. This appointment may be over the phone or in-person.
Complete bloodwork, EKG, and radiology as needed with your primary care physician or with Pre-Anesthesia Testing.
A WEEK BEFORE SURGERY
Eat a nutritious diet, get plenty of rest, and stay hydrated.
A DAY OR TWO BEFORE SURGERY
You will receive a phone call from the hospital reminding you what time to arrive for your surgery, review medications to take the day of surgery, and ask last-minute questions.
Call your surgeons office and schedule post-operative appointments.
THE NIGHT BEFORE SURGERY
Shower and wash your hair, as you will not be able to shower again after surgery until cleared by your doctor.

Your Checklist

MORNING OF SURGERY
Take medication as instructed.
AFTER SURGERY
If you are having an ONCOPLASTIC RECONSTRUCTION or an IMPLANT-BASED REVISION RECONSTRUCTION, you will go home the <u>same day</u> as your procedure.
If you are having IMMEDIATE RECONSTRUCTION WITH IMPLANTS OR TISSUE EXPANDERS, you will go home the <u>day after</u> your procedure.
If you are having FLAP-BASED RECONSTRUCTION, plan to go home on the <u>third or fourth day</u> following your procedure.

Before you leave the hospital, you should have:

- Hospital discharge instructions
- An outpatient appointment with your surgeon within 1-2 weeks of discharge
- Prescription for antibiotics and pain medication. Be sure that you and someone that will be assisting in your recovery at home understand the plan for taking these medications.

Before Your Surgery

Office Visit:

During your first visit, we will evaluate to see if you need surgery and what type of reconstruction we recommend. You will work with our entire team to prepare for surgery.

During your clinical visit, you will:

- Answer questions about your medical history
- Have a physical exam
- Discuss surgical options
- Decide surgical plan

You will also receive:

- Instructions on preparing for surgery
- Special instructions for what to do before surgery (e.g.: if you are on blood thinners or other medications)

You will meet with a surgical coordinator during your visit to schedule the date of your procedure and any additional appointments if needed.

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Presurgical Testing

After your office visit, you will need to see a primary care physician and have tests done before your surgery. This may occur at your own primary care physician's office, or at the Presurgical Testing Department.

Presurgical testing is a process that ensures that all preoperative requirements are completed and reviewed before the day of surgery. **If the Presurgical Testing Center cannot complete this process, your surgeon and/or anesthesiologist may be required to cancel or delay your surgery.**

SPECIAL NOTE ON MEDICATION:

Please let us and presurgical testing know if you are on a blood thinner. This increases the incidence of bleeding.

If you are taking Tamoxifen, **hormone replacement medication**, or hormonal birth control, ask your surgeon if you should stop the medication four weeks prior to surgery. These medications increase the incident of blood clots.

If you take medications for **diabetes**, please check with your primary care physician the dosage recommended when you are fasting. It is typically half the required dose.

Please ask your presurgical testing providing and our office if you have further questions about medications to stop prior to surgery.

Please schedule an appointment for presurgical testing one month prior to surgery. Surgical clearance is due back to our office two weeks prior to surgery.

Preparing for Surgery

You should expect to be in the hospital for about 1-3 day(s), depending on the type of surgery you are having. When you leave the hospital after your surgery, you will need some help from family or friends. It will be important to have help with meals, taking medications, and other activities for daily living.

You can do a few things before you go to the hospital to make things easier for you when you get home:

- Set up a comfortable recovery area with clean linens and pillows for support.
- Bring the things you are going to use often during the day to the place where you will be recovering the first week or two.
- Make sure things you use often are between waist and shoulder height to avoid having to bend down or stretch too much to reach them.
- Do your grocery shopping, laundry, and other chores before surgery as doing these tasks when you first get home will be challenging.
- Arrange for someone to assist you with cooking, getting your mail, taking care of pets and loved ones, and other tasks if necessary. Pets will need to stay away from your surgical site(s) to protect against risk of infection.

1-2 Days Prior to Surgery

- Please do not shave any earlier than 48 hours before surgery. Do not shave your surgical site with a razor within 48 hours of your surgery as this may increase the chances of surgical site infection.
- Use a non-fragranced antibacterial soap (Lever, Dial) the week before surgery with showering.

THE NIGHT BEFORE SURGERY:

- We recommend washing your hair as normal the night before surgery, as you will not be able to shower after surgery until cleared by your doctor. Do this before washing with Hibiclense.
- When showering the night before surgery, use antibacterial soap and/or Hibiclense and scrub your armpits, groin, and underneath your breasts diligently. These areas need to be adequately scrubbed to reduce bacterial count.
- Do not apply lotions or deodorants to the cleaned body areas.
- You may have solid foods up to 6 hours before your surgery and clear liquids (Gatorade) up to 2 hours before surgery but confirm with your surgeon.

BREAST EXPANDER OR IMPLANT PATIENTS

Please use Hibiclense (4% Chlorhexidine) to wash the surgical site 48 hours before surgery. This may be purchased at your local CVS or on Amazon. Shower at least twice with this wash in addition to antibacterial soap. Make sure to scrub the armpit area, under the breasts, and between the breasts very well.

The Day of Surgery

Do not apply lotions, creams, makeup, deodorant, or perfume the day of surgery. Remove all nail polish prior to arriving at the hospital.

Wear loose, comfortable clothing. Do not wear contact lenses, hairpieces, or hairpins. Do not wear any jewelry - this includes wedding rings, earrings, and any other body piercings. If body piercings cannot be removed, please ask your piercing specialist to switch them with completely plastic replacements to prevent burns.

If you take daily medications such as those for blood pressure or cholesterol, please take them as scheduled before surgery with a very small sip of water to swallow them.

Remind the team of any concerns. If you are prone to nausea or vomiting, please let the anesthesiologist know so that steps can be taken to pre-emptively treat such cases.

Please arrive two hours prior to your scheduled surgery. A nurse will call you the day before your surgery to remind you what time to arrive. If your surgery is on a Monday, you will be called the Friday before.

The Day of Surgery

What you SHOULD bring to the hospital:

- A list of your current medications
- Any paperwork given to you by your doctor
- A copy of your Advance Directive form, if you have completed one
- A book or something to do while you wait
- A change of comfortable clothes for discharge
- Any toiletries that you may need
- Your Guide to Breast Reconstruction (this book!)
- Insurance card and photo ID
- Payment for any deductible or copayment

What you SHOULD NOT bring to the hospital:

- Large sums of money
- Valuables, such as jewelry or nonmedical electronic equipment.

The Day of Surgery

Your surgery is scheduled for _____ at _____ am/pm.

Please arrive at the hospital no later than _____ am/pm.

The start time of your surgery is subject to availability in the operating room. We are able to provide an estimate of your surgical start time one week prior to surgery. However, the operating room reserves the right to change the start time of your surgery to accommodate emergencies up to and including the day of your surgery. If your start time has changed, you will be notified by the hospital.

If you are having breast reconstruction in conjunction with a lumpectomy or mastectomy, please consult with your breast surgeon to see if you need to arrive any earlier for additional procedures prior to surgery, such as needle localization or lymph node injection.

You may have solid foods up to 6 hours before surgery (confirm with surgeon).

You may have clear liquids up to 2 hours before surgery (confirm with surgeon).

NO SOLIDS FOODS AFTER _____ am/pm

CLEAR LIQUIDS ONLY BETWEEN _____ am/pm _____ am/pm

NOTHING TO EAT OR DRINK AFTER _____ am/pm

Your Hospitalization

After your surgery, you will wake up in the recovery room, where a team of nurses will closely monitor you to ensure your comfort. They will provide medications to help manage any discomfort and will ask you to describe your pain level on a scale of one to ten, with one being mild discomfort and ten being the most intense pain. While it's normal to experience some level of pain after surgery, our goal is to keep it manageable and ensure you feel supported throughout your recovery process.

Oncoplastic Reconstructions and **Revision Reconstructions** will go home the same day of surgery. You will be discharged from the Post Anesthesia Care Unit (PACU). A responsible adult over the age of 18 must be present to receive your discharge instructions, drive you home, and stay with you for the first 24 hours after surgery.

Immediate Implant or **Tissue Expander Reconstructions** will typically go home the day after surgery. You will be moved to an inpatient room in the hospital once there is a bed available for you. Patients are admitted after surgery for pain management. During the first evening of surgery, you will be able to eat or drink. You may experience muscle spasms, which we will provide muscle relaxants for. You are encouraged to get up and walk around as much as you can after surgery. However, it is critical that you do not use your chest muscles with a 4-wheeled walker as it may disrupt your reconstruction. Usually by day one or two patients feel well enough to go home.

Flap-Based Reconstructions will typically stay in the hospital for three to four days after surgery. During the first evening after surgery, you cannot have anything to eat or drink, in case there is an issue with the vessels that requires a return trip to the operating room. You will have a urinary catheter in place to help you urinate. After we see you in the morning on the first day after surgery to assess your flap, you will be able to resume your diet. You will be able to get out of bed and move into a chair (with help). Your urinary catheter will be removed at this point. By day two, most of our patients are able (and encouraged!) to walk around. You may require assistance early on. It is critical that you do not use a 4-wheeled walker as this uses the chest muscles and may pinch blood vessels supplying the flap reconstruction. Instead, have someone support you gently by your arm. By day three or four, you may be discharged from the hospital.

What is ERAS?

Enhanced Recovery After Surgery (ERAS)

Enhanced recovery is a way of improving the experience of patients who need major surgery. It helps patients recover sooner so life can return to normal as quickly as possible. The ERAS program focuses on making sure that patients are actively involved in their recovery.

There are four main stages:

1. **Planning and preparing for surgery** - giving you plenty of information so you feel ready.
2. **Reducing the physical stress** of the operations.
3. **A pain relief plan** that focuses on giving you the right medicine you need to keep you comfortable during and after surgery.
4. **Early feeding and moving around** after surgery - allowing you to eat, drink, and walk around as soon as you can.

It is important to know what to expect before, during, and after your surgery. Your care team will work closely with you to plan your care and treatment. We hope to make you an active participant in your recovery. By working together, we hope to keep your hospital stay as short as possible.

After Surgery

Pain Management

It's normal to experience some discomfort after breast reconstruction surgery, as your body begins to heal and adjust. The type and location of discomfort can vary depending on the specific procedure you've undergone. Common sensations may include tightness in the chest, tenderness near the incision sites or soreness in areas where tissue was taken or repositioned. While these feelings are a natural part of recovery, they will be closely monitored and managed to keep you as comfortable as possible.

Most patients report experiencing mild to moderate discomfort, typically a 3-4 out of 10 on the pain scale, at their surgical and drain sites after surgery. This type of discomfort is usually manageable with non-opioid medications and other prescribed methods, as opioids often do not significantly reduce this specific type of pain. Our team will provide a comprehensive pain management plan tailored to your needs to ensure your recovery is as comfortable as possible.

The ComfortSafe Pyramid® is a structured approach to managing post-surgical pain using non-opioid medications. This guide emphasizes starting with the safest and most basic options for pain relief and building up as needed. At the base of the pyramid are over-the-counter medications like acetaminophen (Tylenol) and nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen (Advil) or naproxen (Aleve). These medications are often effective in reducing pain and inflammation when taken as directed.

You will be given non-opioid pain medication before your surgery and before you awaken from anesthesia. You will continue to take these non-opioid pain medications around the clock (every 8 hours) for about 1 week. If you have pain that the non-opioid medications do not relieve, take your opioid medication. Try to limit the opioids that you take but always take your scheduled dose of non-opioid pain medication (even if you are not in pain) to help prevent pain and discomfort before it happens.

After Surgery

Medications

You will be given a prescription for antibiotics to help prevent infection and for pain medication to manage any discomfort. It's important to take the antibiotics for the entire prescribed course, even if you begin to feel better, in order to be effective. As for pain management, you will be prescribed opioid pain medication, but this should only be used when pain persists despite the use of non-opioid medications. We encourage you to use non-opioid pain relievers, such as acetaminophen or ibuprofen, as your first line of defense, and reserve opioids for more significant pain if needed. Always follow the instructions carefully to manage your pain effectively while minimizing the risk of side effects or dependency.

Post-Surgery Nausea

It is not uncommon for patients to experience nausea after surgery, often as a result of the anesthesia, pain medications, or the body's natural response to the procedure. While this can be uncomfortable, it is temporary and manageable. Your care team will monitor you closely and may provide anti-nausea medications to help alleviate this symptom. If you experience nausea, let us know so we can adjust your treatment plan to support your recovery.

After Surgery

Diet and Nutrition

Proper nutrition plays a vital role in your recovery after breast reconstruction surgery. Focus on a balanced diet rich in lean proteins, whole grains, fruits, and vegetables to support healing and tissue repair. Protein is especially important for wound healing and rebuilding tissues, so consider incorporating foods like eggs, chicken, fish, tofu, or beans. Stay well-hydrated by drinking plenty of water throughout the day and avoid alcohol while taking pain medications or muscle relaxants. If you experience constipation due to reduced activity levels or medications, increase your fiber intake with foods like oats, berries, and leafy greens, and consult your doctor if additional remedies are needed. It's also a good idea to limit processed foods and high-sodium meals to reduce bloating and inflammation. For personalized dietary recommendations, speak to your care team.

After Surgery

Understanding Opioid Medications and Their Side Effects

While opioids can be effective for managing certain types of pain after surgery, they are not without potential side effects. It's important to use them cautiously and only as directed by your care team.

Common Side Effects:

- Nausea and Vomiting
- Constipation
- Drowsiness or Fatigue
- Dizziness or Lightheadedness
- Confusion or Cognitive Changes
- Respiratory Depression

Risk of Dependence: Opioids carry a risk of physical dependence or addiction, even when taken for short periods. For this reason, we prioritize non-opioid pain management strategies whenever possible.

Your Care Plan

At Specialized Plastic Surgery, we focus on a multimodal pain management approach, combining non-opioid medications, nerve blocks, and other techniques to minimize the need for opioids. Our team is here to support you and will work with you to ensure your pain is well-controlled while reducing the risks associated with opioid medications.

Guidelines:

- DO NOT drive while taking opioid medications
- NO alcoholic beverages while taking opioid medications
- Notify your care team immediately if you experience severe or unexpected side effects
- Stay hydrated and follow dietary recommendations to prevent constipation

After Surgery

Activity After Prosthetic-Based Reconstruction

If you have undergone implant or tissue expander-based reconstruction, you may experience soreness, tightness, and occasional muscle spasms in your chest. These symptoms can often be managed with muscle relaxants. You are encouraged to begin walking, with assistance, as soon as you are ready.

- Avoid activities that raise your heart rate above 100 beats per minute for the first two weeks.
- Avoid physical trauma (including sexual activity) for 4-6 weeks.
- Refrain from heavy lifting (anything over 10 pounds) for 6 weeks.

Most patients are able to return to light-duty work within 2 weeks and may resume driving once they are no longer taking muscle relaxants or opioid medications.

Activity After Flap-Based Reconstruction

If your procedure involved flap-based reconstruction, such as a DIEP flap, you may experience abdominal discomfort and require assistance with mobility for the first week.

- Avoid activities that raise your heart rate above 100 beats per minute for the first two weeks.
- Avoid sleeping on your side for the first few weeks. Many patients find comfort in using multiple pillows or sleeping in a recliner chair.
- Avoid pressure on your reconstructed breasts, such as from seatbelts or heavy items.
- Keep pets and other potential sources of irritation away from your wounds.
- Avoid physical trauma (including sexual activity) for 4-6 weeks.
- Refrain from heavy lifting (anything over 10 pounds) for 6 weeks.

Patients can generally return to light-duty work within 3 weeks. Do not drive if you are taking muscle relaxants or opioid medications. Additionally, avoid placing your seatbelt directly over the chest area.

After Surgery

Activity After Prosthetic-Based Reconstruction

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Avoid activities that raise your heart rate above 100 beats per minute for the first two weeks. Avoid physical trauma (including sexual activity) for 4-6 weeks. Refrain from heavy lifting (anything over 10 pounds) for 6 weeks.

Most patients are able to return to light-duty work within 2 weeks and may resume driving once they are no longer taking muscle relaxants or opioid medications.

Activity After Flap-Based Reconstruction

If your procedure involved flap-based reconstruction, such as a DIEP flap, you may experience abdominal discomfort and require assistance with mobility for the first week.

Avoid activities that raise your heart rate above 100 beats per minute for the first two weeks. Avoid sleeping on your side for the first few weeks. Many patients find comfort in using multiple pillows or sleeping in a recliner chair. Avoid pressure on your reconstructed breasts, such as from seatbelts or heavy items. Keep pets and other potential sources of irritation away from your wounds. Avoid physical trauma (including sexual activity) for 4-6 weeks. Refrain from heavy lifting (anything over 10 pounds) for 6 weeks.

Patients can generally return to light-duty work within 3 weeks. Do not drive if you are taking muscle relaxants or opioid medications. Additionally, avoid placing your seatbelt directly over the chest area.

After Surgery

Activity After LIFT Procedure

Following a LIFT procedure, your back may feel sore due to the surgical site and the presence of drains. Most patients are able to walk without any difficulty and we encourage doing so as early as possible after surgery.

Avoid activities that raise your heart rate above 100 beats per minute for the first two weeks. Avoid physical trauma (including sexual activity) for 4-6 weeks. Refrain from heavy lifting (anything over 10 pounds) for 6 weeks.

Most patients are able to return to light-duty work within 2-3 weeks and may resume driving once they are no longer taking muscle relaxants or opioid medications. Gradually resume shoulder mobility as tolerated, ensuring no pain at the incision site. This helps prevent stiffness or a frozen shoulder.

Activity After Oncoplastic Reconstruction

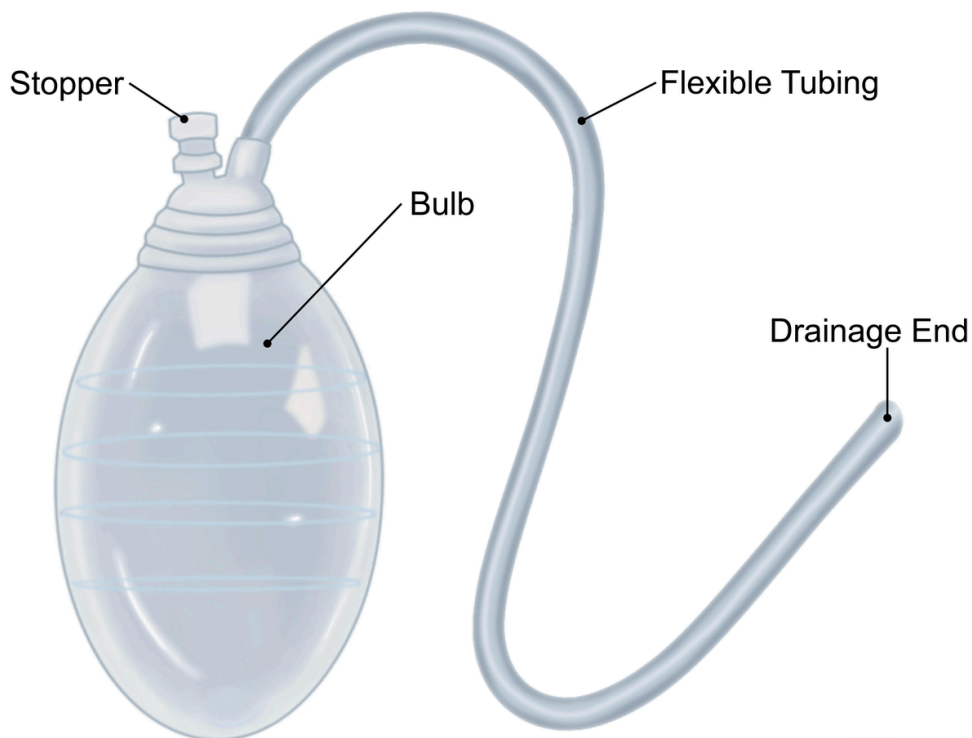
After oncoplastic reconstruction, your chest may be sore in the incision lines and where the drain is in place. Most patients are able to walk without any difficulty and we encourage doing so as early as possible after surgery.

Avoid activities that raise your heart rate above 100 beats per minute for the first two weeks. Avoid physical trauma (including sexual activity) for 4-6 weeks. Refrain from heavy lifting (anything over 10 pounds) for 6 weeks.

Most patients are able to return to light-duty work within 1-2 weeks and may resume driving once they are no longer taking muscle relaxants or opioid medications.

Surgical Drain Care

The Jackson-Pratt drain system is made up of a soft plastic bulb with a catheter at the top of the bulb, and a drainage outlet with a stopper. The other end of the catheter tubing is inserted near your incision to collect drainage. When the bulb is compressed with the stopper in place, a vacuum is created. This causes a constant gentle suction, which helps draw out fluid that otherwise would collect under the incision. To achieve the best healing results, the bulb should be compressed at all times, except when you are emptying the drain. The amount of time you will have the drain depends on your surgery and the amount of drainage you are having, which is very individual. Your doctor will decide when to remove the drain(s) based on the daily output, so please be sure to bring your records to your follow-up appointments.



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Surgical Drain Care

Surgical Drain Care Instructions

Caring for your JP drain at home will involve caring for your insertion site, emptying the drain, stripping the drain, and recognizing when there is a problem. Always wash your hands thoroughly before and after handling your surgical drain.

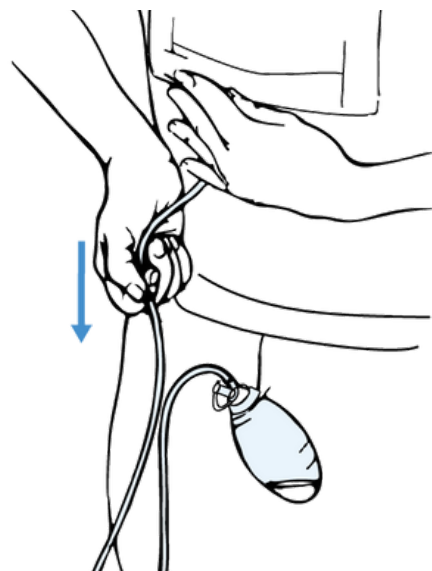
Caring For the Insertion Site

Remove the dressing and gently clean the skin around the insertion site with a cotton pad soaked in non-fragranced soap and water or saline solution. Pat dry. Apply antibiotic ointment around the drain site and cover with a Band-Aid or apply a clean new dressing. Check the insertion site daily for signs of infection such as redness, swelling, or warmth.

Stripping the Drain

Strip the drain 2-3 times a day to prevent blood clots and keep the drainage flowing.

1. **Hold** the tubing near where it exits the skin
2. **Pinch** the tubing with your other hand, squeezing the tubing between two fingers to flatten it.
3. **Slide** your fingers down the tubing towards the drain bulb. You can use an alcohol pad or hand sanitizer to make sliding easier.
4. **Release** the tubing.
5. **Repeat** 2-3 times to make sure drainage is flowing to the bulb.



Surgical Drain Care



Emptying the Drain

Empty the drain once in the morning and once in the evening (twice a day) or whenever it becomes half full, whichever comes first.

- **Access the drain:** Locate the plug or cap on the top of the drainage bulb. Unplug the stopper. This will cause the bulb to expand. Do not touch the inside of the stopper or inner area of the opening on the bulb.
- **Empty the fluid:** Turn the bulb upside down, gently squeeze the bulb to pour the contents into the measuring container you were given at discharge.
- **Re-establish suction:** Turn the bulb right side up. Squeeze the bulb flat from side to side (not top to bottom) until you have removed as much air as possible from inside.
- **Secure the drain:** Continue to squeeze as you re-plug the stopper. Attach the loop of your drain bulb to a belt loop, put in pockets or fanny pack, camisole with pouches, or around your neck on a lanyard. Do not allow your drains to dangle.
- **Record:** Check the amount of drainage in the measuring container. Record the time, amount, and color of the fluid on your handout or using the [Drain IQ app](#).
- **Dispose:** Empty the drainage down the toilet and rinse the measuring container with soap and water.

If you have more than one drain, measure and record each separately. At the end of each day, add the total amount of drainage for the 24-hour period.

Surgical Drain Care

Problems You May Encounter with Your Surgical Drain

Problem: The bulb will not stay compressed completely.

Solution: Squeeze the bulb fully from side to side (not top to bottom). Check that the stopper is inserted tightly. Inspect the tubing for a tear or leak. If the bulb remains expanded after following these steps, please notify the office.

Problem: There is an abrupt decrease in the amount of drainage or there is a leakage of fluid at the insertion site.

Solution: Follow the instructions for stripping the drain and do this several times. Make sure the bulb is flat and has good suction. Monitor the incision site for increases in size, changes of skin color, or increased pain - if any of these are present notify the office.

Problem: The drain catheter falls out of the insertion site.

Solution: The drains are sutured into place, so this is rare. Cleanse the site gently with soap and water, pat dry, and apply Aquaphor to where the drain was inserted. Cover with a thick gauze or the soft side of a maxi pad in case fluid begins to leak from the drain site. Notify the office.

Showering with Your Surgical Drain

Please note you are not to shower until cleared by your doctor. Find something you can hang around your neck and attach the drain bulb to it. You can use a ribbon, lanyard, long necklace, chain, or even shoelaces. Alternatively, you can use a fabric belt and loop the drain tabs through them and wear in the shower. It is important that the drains not dangle in the shower, but that you do have your hands free for washing. Utility belts to hold your drains are also readily available on Amazon.

Surgical Drain Care

Contact Us If You Notice:

- Increased redness, swelling, or leaking around the area where the tube enters the body
- Inability to flatten out the drainage tube
- The tube falls out or the suture attaching the tube to your body falls out
- Change in what is coming out of the drain, including foul smells or discharge
- Unusual color or odor
- A fever of 101F or higher

Normal Fluid Color Change



Post-Surgical Garments

Post-surgical garments are an essential part of the recovery process after breast reconstruction surgery. These garments provide necessary support, reduce swelling, and help ensure optimal healing. Below, we outline the purpose, guidelines, and recommendations for post-op bras and abdominal binders. You will be provided with one of each post-op.

Post-Operative Bras

A supportive post-op bra is crucial for recovery to protect the reconstructed breast, promote proper healing, and minimize swelling. Unlike traditional bras, post-surgical bras should not compress the chest or apply pressure to incision sites. Key guidelines for wearing post-op bras include:

- **Supportive, Not Compressive:** Choose bras that offer gentle support without squeezing or flattening the breasts.
- **No Underwire:** Avoid underwire bras for at least the first 3 months post-surgery, as the wire can irritate healing tissue and incision lines.
- **Extended Wear Time:** Wear your post-op bra for 23 hours a day for the first 6 weeks, removing it only to shower or wash the garment.
- **Managing Swelling:** Expect some swelling for up to 6 months after surgery. It is best to wait at least this long before investing in a new wardrobe of bras to ensure a proper fit.

For optimal comfort and functionality, we recommend [AnaOno](#) and [EverViolet](#), two companies that specialize in post-surgical bras for breast cancer. These bras are designed with features like soft fabrics, front closures for easy wear, and built in drain pockets to accommodate surgical drains. Their wire free designs and thoughtful construction cater specifically to the needs of breast cancer and reconstruction patients.

Post-Surgical Garments

Abdominal Binders

For patients who have undergone DIEP flap reconstruction, an abdominal binder is essential to support the area during healing. These binders can reduce swelling, improve circulation, and minimize discomfort by keeping the abdominal muscles stable.

- **First 3 Weeks:** Wear the abdominal binder 24 hours a day, removing it only to shower or for brief cleaning breaks.
- **Next 3 Weeks:** Switch to wearing the binder during the daytime only, allowing more flexibility while still supporting the healing tissues.

The compression provided by the abdominal binder helps reduce the risk of fluid buildup, supports muscle repair, and enhances comfort as you regain mobility.

Insurance Coverage

Navigating insurance coverage for breast reconstruction can feel overwhelming, but we are here to make the process as seamless as possible. At Specialized Plastic Surgery, our surgical coordinators will handle all aspects of billing and insurance authorization on your behalf, ensuring you can focus on your recovery. We work closely with your insurance provider to verify coverage and obtain the necessary approvals for your procedure.

The Women's Health and Cancer Rights Act (WHCRA) of 1998

If you are undergoing breast reconstruction following a mastectomy due to breast cancer, it is important to know your rights under federal law. The Women's Health and Cancer Rights Act (WHCRA) mandates that most group health plans and insurance providers cover breast reconstruction and related procedures after a mastectomy.

Under the WHCRA, insurance coverage must include:

- Reconstruction of the breast on which the mastectomy was performed
- Surgery and reconstruction of the opposite breast to create a symmetrical appearance
- Prosthetics, if needed
- Treatment of physical complications of mastectomy, including lymphedema

This law ensures that women have access to comprehensive care, not just their cancer treatment but also for restoring their physical and emotional well-being. Whether you choose implant-based or autologous reconstruction, these procedures are covered by most insurance plans under the WHCRA.

Insurance Coverage

What You Can Expect from Our Team

Our experienced surgical coordinators will:

- Confirm your insurance benefits for breast reconstruction and related procedures
- Obtain pre-authorization for your surgery to avoid unexpected expenses
- Work directly with your insurance company to handle all billing and claims submissions

We understand the emotional and financial stress that can accompany a breast cancer diagnosis. By managing the insurance process for you, we aim to reduce the burden and ensure you receive the care you need. You will never receive a bill from us for a balanced owed.

Additional Considerations

While the WHCRA provides comprehensive protections, coverage may vary based on your specific plan or insurer. For example, some policies may require referrals or second opinions. Our team will guide you through any additional requirements and answer your questions to ensure full transparency throughout the process.

Breast reconstruction is a deeply personal journey, and no one should have to worry about financial or insurance hurdles while healing. If you have further questions about your insurance coverage, please don't hesitate to contact our office for support and guidance.

Resources

Informational Resources

American Cancer Society

[Questions to Ask Your Surgeon About Breast Reconstruction](#)

American Society of Plastic Surgeons (ASPS)

[Breast Reconstruction - Know Your Post-Mastectomy Options](#)

National Cancer Institute

[Breast Reconstruction After Mastectomy](#)

BreastCancer.Org

www.breastcancer.org

National Breast Cancer Foundation (NBCF)

www.nationalbreastcancer.org

Financial Resources

Women's Health and Cancer Rights Act 1998 (WHCRA)

Compliance Help Line

1-877-267-2323

Susan G. Komen

Help with treatment costs, transportation, & living expenses

www.komen.org

The Pink Fund

Financial aid for breast cancer patients

www.pinkfund.org

Resources

Wellness Resources

Bronx Oncology Living Daily (BOLD Program)

[Free Cancer Support Group](#)

718-430-2380

Gilda's Club NYC

Free Workshops, Counseling, and Group Therapy

www.gildasclubnyc.org

The Breast Cancer Alliance (BCA)

Support Groups, Educational Programs

www.breastcanceralliance.org

CancerCare

Professional Counseling, Support Groups

www.cancercare.org

Breast Cancer Yoga

Yoga, Breathing Exercises, & Relaxation

www.breastcanceryoga.com

You Can Thrive! Foundation

Holistic Support for Breast Cancer

www.youcanthrive.org

Medical Resources

White Plains Hospital

[Surgical Navigation Center](#)

914-849-7119
