

Your Guide to Free Flap Breast Reconstruction Surgery

Preparing for and Recovering from Surgery

Patient Name

Surgeon Name



JOHNS HOPKINS
MEDICINE

Index:

| | |
|--|----|
| Introduction..... | 3 |
| Your Checklist..... | 5 |
| Getting Ready for Surgery..... | 10 |
| The Day of Surgery..... | 16 |
| Recovery in Hospital and Going Home..... | 21 |
| Concerns After Discharge..... | 35 |
| Notes..... | 38 |
| Important Contact Numbers..... | 41 |

Welcome to the Johns Hopkins Department of Plastic Surgery

The Johns Hopkins Plastic Surgery team is here to help and will tailor your recovery program to meet your needs. Please contact any member of the team with questions or concerns (see pg. 41).

This booklet contains details about:

- Getting ready for your surgery
- What to expect on the day of surgery
- Planning for recovery and going home
- What to expect once you are home

To make this journey easier

- Please try to read this booklet as soon as you can
- Bring this booklet with you to all appointments and admissions
- Write down your questions and be sure to discuss them with your surgical team

It is important for you, your family and your friends to understand what to anticipate so that everyone can participate in your recovery.

Best wishes for a speedy recovery from the Johns Hopkins Plastic Surgery Team!



Purpose of This Book

To help guide you through the Enhanced Recovery after Surgery (ERAS) program. It is important that everyone knows what to expect before, during and after your surgery. Treatment is always based on each patient's needs, so this packet is intended as a guide. Please ask a member of the health care team if anything remains unclear, or if you have questions or concerns.

What is ERAS?

Enhanced recovery after surgery (ERAS) is designed to help you recover faster and reduce complications.

Four Main Parts of ERAS:

1. Planning and preparing for surgery
2. Reducing the stress of surgery
3. Pain management – we will offer options that speed up your recovery
4. Getting you to eat and walk sooner

This program is most effective when you are actively involved in your recovery. We will work with you during your recovery to keep your stay as short as possible.

You should expect to be in the hospital for approximately 3 days.

Your Checklist



Patient Name _____ Date of Surgery _____

Use this summary checklist as a guide to prepare for your surgery and recovery after surgery.

| CHECK WHEN DONE | ACTION |
|---------------------------------|---|
| ONE MONTH BEFORE SURGERY | |
| | Watch the assigned education programs. |
| | Have your pre-surgery evaluation done with your primary care? Physician or at the Pre-Operative Evaluation Center (PEC) at Johns Hopkins (phone number?). |
| | Talk with your surgical team about blood thinners; for example, Warfarin (Coumadin), Clopidogrel (Plavix), aspirin. |
| | Contact your surgical team or your physician to complete your preoperative testing, which may include: lab work, chest x-ray, computerized topography (CT) scan and electrocardiogram (EKG). |
| | If applicable, stop taking hormone medication, including birth control and Tamoxifen. |
| | Plan for a two to three night stay in the hospital following surgery. It is likely that you will need assistance from family or friends immediately after leaving the hospital. You will be asked to name this person as your Care Buddy or Care Partner during your admission. |
| 10 DAYS BEFORE SURGERY | |
| | Ensure your surgical team has received copies of your medical records from your preoperative evaluation, including history and physical, and all test results. Contact your surgical team if you have any NEW medical issues as this should be brought to the attention of your surgeon. |
| | Stop taking aspirin, ibuprofen (for example, Motrin, Advil, or Aleve), vitamin E, multivitamins and any herbal supplements. These may cause increased bleeding during and after surgery. You can take Tylenol. |
| | Purchase Hibiclens (a liquid medicated soap) at any pharmacy. |

| CHECK WHEN DONE | ACTION |
|--|---|
| A few simple things to do before coming to the hospital that may make it easier for you when you return home: | |
| | In the kitchen: put the things you use often between waist and shoulder height to avoid bending down or stretching to reach them. |
| | Bring the things you will use during the day downstairs. You may not be able to climb stairs immediately after the surgery. |
| | Stock up on food and other things you will need. Shopping may be difficult when you first go home. |
| | Wear button down or zip up shirts to make it easier to get dressed. |
| | Use extra pillows to prop yourself up in bed while sleeping and resting. This will be more comfortable than lying flat. |
| THE DAY BEFORE SURGERY | |
| | Do not shave or wax anywhere on your body for TWO days prior to surgery. |
| | The night before surgery, wash with the medicated soap (Hibiclens). |
| | Do not allow the medicated soap to come in contact with your eyes, ears, mouth, or nose. Do not put in eyes, ears, mouth, or vagina. |
| | Shampoo hair as usual before using the medicated soap on your body. |
| | To shower: Make sure your entire body is wet, then turn off the shower. Use the soap on a clean washcloth and wipe each area of your body in a back and forth motion. Pay particular attention to washing your surgical area. |
| | If you feel itchy or if your skin turns red, rinse your skin with warm water and stop using the Hibiclens. |
| | You may need to ask for help to reach all areas of your body. |
| | When done, turn the shower back on and gently rinse off. |
| | Pat yourself dry. |
| | Do not apply lotions, makeup, powders, deodorants, or creams as these may reduce the disinfecting effects of the soap. |
| | Dress in clean sleepwear or clothes. Use clean sheets on your bed. |
| | Shower again as directed above on the morning of your surgery. |

| CHECK WHEN DONE | ACTION |
|---|--|
| THE DAY BEFORE SURGERY (continued) | |
| | <i>EIGHT hours before your surgery, do not eat, smoke, or chew gum.</i> <i>You may continue to drink clear liquids up to 2 hours before surgery.</i> |
| | Make sure you know which medicines to take the morning of your surgery. |
| | Pack your belongings for your overnight stay in the hospital: <ul style="list-style-type: none"> • Computers, tablets and cell phones are allowed in the hospital. • Internet access is available. • Towels and gowns will be provided, many people like to bring their own bathrobe and toiletries. • Leave your medicines at home. We will supply all medicines needed for your recovery. • It is best to have your Care Buddy or Care Partner bring your personal belongings to you after surgery. Do not pack nonessential, valuable items. |
| | Wear loose, comfortable clothing: <ul style="list-style-type: none"> • Button or zip up shirts are easier for getting dressed. • You do not need to purchase any special bras. If your surgeon wants you to wear a bra, one will be provided to you. • Do not wear any jewelry; this includes wedding rings, earrings, necklace and any body piercings. • All jewelry <i>must</i> be removed prior to surgery. |
| | Remember purchase extra pillows so you can proper yourself up in bed, etc. while sleeping and resting as this is often more comfortable than lying flat. |
| THE DAY OF SURGERY | |
| | Take your medicines as instructed with a small sip of water the morning of surgery. |
| | Wash with the medicated soap as instructed (see page 7) the morning of surgery. |
| | Bring this booklet with you. |
| | Wear loose and comfortable clothing. |
| | Arrive at the hospital two hours prior to your scheduled surgery time. |

| CHECK WHEN DONE | ACTION |
|---------------------------------------|---|
| THE DAY OF SURGERY (continued) | |
| | <p><i>Drink a 20-ounce bottle of Gatorade two hours before your surgery – as you are coming to the hospital.</i> You cannot have anything more to drink after you check in.</p> |
| | <p>When you arrive, check in, as explained in your admission letter.</p> <ul style="list-style-type: none"> • You will be called to the preoperative (preop) unit, where a nurse will get you ready for surgery. You will change into a hospital gown, have an IV placed in your arm, and start IV fluids. • The anesthesia team (anesthesiologist or nurse anesthetist) will discuss your medical history and review your anesthesia plan. • Your surgeons will mark the area where you are having surgery, take photographs, answer final questions and have you sign consent forms for the surgery. • Following these steps, you will be taken from the preop area to the operating room. • You will be helped on to the operating room table and given medicines to go to sleep by your anesthesia team. |

Getting Ready for Surgery



My Presurgery Planner

Instructions: Mark the date of your surgery in the last (highlighted) row of the calendar. Use this calendar to mark and track each of your appointments leading up to surgery (for example, anesthesia clinic, primary care provider) and to add reminders for the activities you will need to do in the days leading up to your surgery.

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|--------|---------|-----------|----------|--------|----------|
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Preparing for Surgery

Scheduling Your Surgery

Our surgical coordinator from the surgical team will call to schedule your surgery date. Please make sure your contact information is up to date, and provide a phone number where you can be reached the day before surgery.

Insurance Authorization

Our precertification team will contact your insurance company to secure authorization for your surgery and admission. Please notify your surgery coordinator immediately if there have been any changes in your insurance since your last visit. The precertification team will contact you to inform you of any deductible or copayment. Please pay any deductible or copayment the day of surgery. If you are insured through an HMO, you may need a referral for services from your primary care physician. Please contact the customer service number on the back of your insurance card for clarification. If you are going to be admitted to the hospital and have questions regarding your insurance, please call the Johns Hopkins Admissions Office at 410-955-6055.

Advance Directives

An advance directive can be used to name a health care agent; this is someone you trust to make health care decisions for you. This directive makes clear what you want (or don't want) in the way of treatments to sustain your life. Advanced directives are optional. If you have an advance directive, bring a copy to the hospital if you want it to apply to the hospital admission. An advance directive can be removed or changed at any time. Additional information can be found by calling the Maryland Attorney General's office at 410-576-7000 or visiting:

www.oag.state.md.us/Heathpol/AdvanceDirectives.htm.

What is Free Flap Breast Reconstruction?

A free flap breast reconstruction uses your tissue (called autologous) to create a new breast. (This is one type of reconstructive surgery used after a mastectomy.) Tissue is taken from your belly, back, thigh, or buttock. You and your plastic surgeon will have already discussed the flap options and chosen the most appropriate reconstructive option for you. Belly tissue is the most common for free flap breast reconstruction. This procedure is called a DIEP flap.

Surgical Risks: All surgeries involve some risks, such as side effects of anesthesia, bleeding, infection, pain, and swelling. Also, several complications specific to flap surgery may occur in some women. After reading the descriptions below, please contact your surgeon if you have any questions.

Bleeding: Bleeding is usually minimal and well controlled during the surgery. On rare occasions, a blood transfusion may be required (up to 5% of cases).

Infection: You will receive antibiotics before your surgery and during your surgery to prevent infection. You will also wash with the Hibiclens medicated soap the morning before surgery to prevent infection. However, infection may develop despite these preventive actions. Those who smoke, have diabetes, have had radiation, or are anemic are more likely to develop an infection. Infections are usually treated with oral antibiotics. Some cases of severe infection may also require admission to the hospital for antibiotics and possible surgery to remove the infected tissue. This may result in a larger scar, which can be corrected later.

Seroma or hematoma: A seroma is a buildup of fluid under the skin. A hematoma is a buildup of blood under the skin. The use of drains after surgery may help prevent both of these. Small seromas or hematomas may resolve on their own. Larger seromas or hematomas may require draining either in the clinic or in the operating room. You will be assessed for these while in the hospital and at all follow-up appointments. If you notice a sudden increase in size of your breast or abdomen, or new pain, call to make an appointment with your surgeon.

Partial or full loss of the flap: There is a small chance (about 3% of cases) that the flap may not get the blood supply it needs after surgery. Most often this happens

in the first 72 hours after surgery. There are surgical and medical interventions that may improve the blood supply to the flap. Sometimes, despite these interventions, part or the entire flap tissue will die. If the entire flap dies, it will be surgically removed and your surgeon will discuss other breast reconstructive options. If part of the flap tissue dies, it will make a wound separation or opening which may need special dressings and possibly surgery to heal.

Changes in sensation: Following surgery, the breast skin will be numb. If you had a nipple-sparing mastectomy, your nipple will also be numb. In the breast area and armpit, you may feel burning or shooting pain, itching, increased sensitivity to touch, irritation of the skin and numbness. You may also experience chest muscle tightness, cramps or spasms, and “phantom breast” sensation. **These feelings are all normal.** If the surgeon uses belly tissue for your reconstruction, numbness in the belly area will occur. Over time, you may regain some sensation in the chest skin, nipple and abdomen, but this takes from several months to years, and does not happen for every patient.

Nipple loss or discoloration: In most cases, the nipple is removed at the time of the mastectomy. In some cases, the nipple may remain in place; please discuss your options with your breast cancer surgeon. If the nipple does remain, there is a chance of decreased blood supply to the nipple after surgery. This could cause the nipple and/or the dark skin around it (called the areola) to die either partially or fully. If the nipple/areola dies partially, it will fall away and heal, but may cause a change in the color of the nipple/areola. If the nipple/areola dies fully, it will form a dark black scab that may need special dressings and possibly surgery to heal.

Skin loss or discoloration: There is a chance of decreased blood supply to the breast skin left after mastectomy and the skin at the flap site after surgery. This could cause some skin tissue to die either partially or fully. If the skin dies partially, it will fall off like a scab and heal, but may be a different color. If the skin dies fully, it will form a dark black scab that may need special dressings and possibly surgery to heal.

Belly button loss and/or discoloration: The belly button is **not** removed at the time of the flap surgery, but our surgeon will cut around it. There is a chance of

decreased blood supply to the belly button after surgery. This could cause the belly button to die either partially or fully. If the belly button dies partially, it will fall away and heal, but may cause a change in the color and/or shape of the belly button. If the belly button dies fully, it will form a dark black scab that may need dressings and possibly surgery to heal.

Muscle weakness, hernia, and/or bulge: If you have flap surgery using your belly tissue, there is about a 3% to 5% chance that you may have abdominal muscle weakness, a bulge, or a hernia after surgery. The abdominal muscle weakness or bulge may improve with physical therapy. If a hernia develops, depending on its size, you may require surgery to repair it. You may experience sensations such as bloating, fullness, or swelling in the abdominal wall following surgery. If you have flap surgery using tissue from your back, the surgeon will move the back muscle responsible for the “pull-up” motion. This usually does not create a noticeable weakness with everyday activities. However, you may notice some weakness in activities such as tennis, bowling, rock climbing, or swimming.

Scarring: All new scars are red, dark pink, or dark purple. In general, scars fade as they mature over 6 months to a year. However, this depends on how your body usually heals and scars. Our goal is to make the scars as light and thin as possible. You will have scars where tissue has been taken and at the chest/breast area.

Longer or poor wound healing: In some cases, the incision site after surgery takes longer to heal than normal. It may also heal poorly, causing a wound separation or opening. Smoking, poor nutrition, diabetes, previous radiation treatments, and a compromised immune system can cause these problems. If this occurs, special dressings may be used to heal the wound.

Need for future surgeries: Some patients will need further revision surgeries (3 to 12 months following flap surgery). These may include: fat grafting, addressing minor differences in unequal proportion, balancing the other breast, and reconstructing the nipple if needed. These are typical out-patient surgeries.

The Day of Surgery



The Day of Your Surgery

Taking Your Medications before Surgery

- Make sure you know what medications you should take the morning of your surgery.
- You will receive a call the day before your surgery to review your regular list of medications and to confirm the time you need to come to the hospital.
- If anything is confusing, please ask questions!

What to Bring

Leave all valuables at home or give them to the person(s) accompanying you. We encourage you to only bring essential items the morning of surgery, including:

- Insurance cards
- Personal identification card, for example, driver's license
- Copy of your advance directive (optional)
- A list of all your medications, including dosages and how often you take them
- This book! Your Guide to Free Flap Breast Construction Surgery
- Payment for any health insurance deductible or copayment

Please be aware that there may be some wait time before your surgery. We will do our best to predict how long other operations will take that day, but unexpected delays are sometimes unavoidable. Therefore, bring a book or something to do while you wait.

Belongings for Your Recovery

Computers, tablets and cell phones are allowed in the hospital. Internet access is available. Towels and gowns will be provided, but many people like to bring their own bathrobe and toiletries. Please leave your medicines at home. We will supply all medicines needed for your recovery. It is best to have your family or friends bring these personal belongings to you after surgery. Don't pack nonessential, valuable items.

What to Wear to Surgery

Wear loose, comfortable clothing. Do not wear any jewelry; this includes wedding rings, earrings, necklace and any body piercings. All jewelry must be removed prior to surgery.

Drink Your Gatorade

Don't forget to drink your 20-ounce bottle of Gatorade **two** hours before your surgery. You cannot have anything more to drink after you check in. Once your team is ready, you and one member of your family, if desired, will be brought to the presurgery area.

Parking

The Johns Hopkins Outpatient Center parking garage is located at 601 North Caroline Street (which is halfway between Orleans Street and Monument Street).

Check-In

To ensure a smooth registration process, please arrive **two** hours before your scheduled surgery. It is important to allow ample time for parking and walking to the check-in desk. You will report to the OR procedure and registration area. This is located in the Johns Hopkins Outpatient Center, Lower Level. Walk from the parking garage to the main entrance (about 50 feet) and ask the guard just inside the entrance where to go.

Your Hospitalization

Once your team is ready, you and your Care Buddy or Care Partner, if desired, will be brought to the presurgery area. The nurses and anesthesia providers will check you in and make sure everything is set for your surgery. Your surgery will take the full day. You will be given general anesthesia and get medicines to reduce the pain, nausea, and risk of infection. You will also be given IV fluids to keep you hydrated while asleep. You will then be taken to surgery, and your family will be taken to the patient/family lounge.

After Surgery

After surgery, you will go to the recovery area and will be closely monitored for 1 to 3 hours. Once you have recovered from anesthesia, you will be taken to your room. Most rooms are private and will allow a Care Buddy or Care Partner to stay with you overnight. During your hospital stay, the medical team will monitor your flap for warmth, color, and pulses. You will have surgical drains in place to avoid build-up of fluid. You will also have extreme tightness in the abdomen causing you to hunch. This tightness will slowly relax in the weeks following surgery.

Team Caring for you After Surgery

In addition to the nurses on the unit, the plastic surgery inpatient team will care for you. This team is led by your surgeon and includes a resident in his or her last year of training, as well as other residents, medical students, and a physician assistant or nurse practitioner. There will be a physician available 24 hours a day to tend to your needs.

Pain and Nausea after Surgery

Nurses will ask you about your pain level every few hours. This is necessary to provide pain relief as needed. When you are in the recovery room you will get pain medicine through your IV. Once you are able to drink fluids, you will get pain pills, which will be continued when you are discharged home.

When you Take Medicines at Home

- Do not drive or do activities that require you to be alert.
- Do not drink alcohol or take sleeping pills, or cold or allergy medicines while on the pain medicine.
- To reduce nausea, take the pain medicine with food and move slowly when changing positions.
- To reduce constipation – drink fluids, increase your fiber intake, and take a stool softener and a laxative as needed.
- If you get itchy, it is okay to take a Benadryl.

Sometimes a patient may have nausea and vomiting after surgery. If you experience this when you are in the recovery room, the nurse will give you medicine through your IV, and you will be given a pill for nausea to take at home. If you have nausea at home, take the pill with sips of clear liquid, and remain still until you feel better. If your nausea continues, notify your surgeon.

Length of Hospital Stay after Surgery

Our goal is for a 3 day hospital stay

- If you have prolonged nausea, fever, or other issues you may have to stay in the hospital longer.
- You will have surgical drains in place. Before you go home a nurse will go over discharge instructions and show you how to strip and empty the drain.
- A home care nurse can be arranged if requested.
- You will also get prescriptions for pain pills and antibiotics, these can be filled at the hospital pharmacy.
- After surgery, you may go back on your regular medicines as instructed on your discharge sheet.