WESTCOUNTY

PLASTIC SURGEONS
of Washington University

Patient Information for :

MICROVASCULAR TUG FLAP BREAST RECONSTRUCTION

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Marilyn Bennett and Patty McCune

OR DAY/TIME :________________ PLACE:_______________ ARRIVAL TIME:____________

During office hours, questions can be answered by our office staff at 314-996-8800. During off hours, please call Barnes hospital at 314-362-5000 and ask for the "Plastic Surgery Resident on call."

Please note that our website (www.westcountyplasticsurgeons.wustl.edu) has detailed descriptions of most procedures. This form is available from our website by navigating to: Patient Resources > Patient Forms.

BEFORE SURGERY

AS SOON AS POSSIBLE BEFORE SURGERY:

1. **Smoking affects healing.** Please **stop smoking or ANY nicotine products** for **as long as possible before and after surgery.** If needed, we can prescribe Chantix to help you quit. Our office may perform **a urine nicotine test** at any time before your surgery to confirm that you have quit smoking.
2. **Understand your surgery.** The TUG flap is an acronym for the ***Transverse Upper Gracilis myocutaneous flap***. It is a newer option that has been developed for breast reconstruction. The gracillis is one of four inner thigh muscles used to adduct – or draw in - the thigh and so is expendable. An ellipse of skin and fat tissue located immediately above the gracilis muscle along with the muscle is harvested as the TUG flap and transferred to the chest for breast reconstruction. One thigh is used for reconstruction of one breast on the same side, and both thighs for both breasts. The thigh scars from the TUG flap are hidden in the inner groin crease. The TUG flap can be used to build a small to moderate sized breasts, usually 60-70% of the size of the original breast. Microsurgery is required to connect the blood vessels from the TUG flap (descending medial circumflex artery) to the internal mammary artery under the third rib (accessed by removing the short cartilage segment at the front of the third rib). While the TUG flap is a relatively new option for breast reconstruction, the gracilis muscle has a long track record as an excellent option for other forms of microsurgical reconstruction.

TWO WEEKS BEFORE SURGERY:

1. Some medications can interfere with anesthesia and cause undesirable side effects that could affect your surgery. Please read over the enclosed **"Medication and Supplement Alert List"** and let us know if you take any of them. You should refrain from using Aspirin for 2 weeks prior to surgery. But, we will recommend that you take a regular dose of aspirin for 1 year after surgery to improve blood flow to your flap. Tylenol is a good medicine to take for any aches or pains you may have prior to your surgery.

2. If you develop a cold, facial sore, or any other illness prior to surgery, please notify us.

EVENING BEFORE SURGERY:

1. Have some jello and/or soup available for after surgery. Stock the freezer and cupboards with easy meals so you don't have to shop or cook for a week.

2. Get a good night's rest.

DAY OF SURGERY

Arrive at the Hospital at: ____

1. Do not eat or drink anything starting the midnight before surgery. **DO NOT SMOKE.**

2. Do not wear contact lenses, wigs, hairpins, hairpieces or jewelry. Dress in old, loose, comfortable clothes. Do not wear pullover tops or pantyhose. Remove all body piercing jewelry from all locations. Wear slip-on shoes.

3. Have someone drive you to your surgery and make certain someone will be available to take you home and stay with you for 24 hours. Put a pillow and blanket in the car for the trip home.

AFTER SURGERY

HOSPITAL CARE AFTER SURGERY:

1. **Diet.** You will not be allowed to eat for at least 24 hours after your surgery. This is because we carefully monitor your microvascular surgery and need to be able to go back to the operating room quickly if additional surgery is required. Your diet will be slowly advanced on the second postoperative day with clear fluids and then light foods. Please be sure to consume a diet rich in protein once you are discharged home after surgery. This will encourage wound healing and may reduce your risk of post-operative seromas (collections of fluid that your drain tubes otherwise have to deal with).

2. **Blood Clot Prevention.** To reduce the risk of blood clots after surgery you will be treated with a drug called ***Lovanox.*** This drug, also known as ***low molecular weight heparin*** is injected under the skin of the abdomen daily for at least 5 days after surgery. You will also have specialized stockings on your lower legs that intermittently massage your ankles. These also reduce the risks of blood clots.

3. **Improving Circulation in Your Reconstruction.** To improve blood flow to your reconstruction you will be treated with a full dose of ***Aspirin.*** We will require that you take Aspirin daily for one year after surgery. You may stop your Aspirin to avoid increasing the risk of bleeding should you require other surgeries during that year. Typically, we recommend that you stop the Aspirin for 2 weeks prior to a surgical procedure and for 1 week after, but this can depend on the type of procedure you are having. Consult with both our office and the surgeon performing another surgery to specifically direct you when to stop and start your Aspirin.

   A ***warm environment*** can help dilate blood vessels and improve circulation to your reconstruction. Your ***hospital room will be kept quite warm after surgery***. Additional warming pads or blankets may be kept near your reconstruction as well to help warm it and improve circulation.

   The nursing staff will carefully monitor circulation to your reconstruction. This can be as frequent as every hour for the first few days, and then less frequently. To monitor circulation, a number of methods may be used. They will check if the reconstruction is warm, if it "pinks up" when it is touched, and they may listen to blood flow with a device called a ***doppler*** that is pressed against the reconstruction at specific locations. Occasionally, a machine called an ***implantable Doppler*** that has a tiny monitor directly attached to the reconstructed vessels may be used to listen to blood flow.

   Reduced circulation to the flap may compromise the survival of parts of the flap (called ***fat necrosis***) or all of the flap (***complete flap loss***). Reoperation, certain medicines, medicinal leaches, or other interventions may, but are not guaranteed to, improve the chances of minimizing flap loss.

4. **Pain Control after Surgery.** You will be provided with a PCA after surgery. This means that you can hit a button and a monitored and safe amount of pain medicine will be given to you intravenously. As your pain improves you can take oral pain medicine.

5. **Preventing Infections after Surgery.** A limited course of antibiotics are typically prescribed after surgery. The type of antibiotic depends on several factors including which allergies you have.

6. **Preventing Fevers after Surgery.** Deep breathing helps keep your lungs inflated and prevent fevers after surgery. When flap tissue is taken from your abdomen, post-operative pain can make it hard to take deep breaths but its important to do it anyway. To help coach you to take big breaths you will be provided with an ***incentive spirometer***. This device has a mouthpiece attached to a hose that you take big breaths into. It shows you how big a breath you are taking and provides you with direct visual feedback to see how you are doing and to motivate and remind you to continue to take big breaths.

7. **Blood Transfusions after Surgery.** On occasion, blood transfusions are required to restore your blood counts following microvascular breast reconstruction surgery. The decision to transfuse you is made when the risk of a blood transfusion (allergic reaction, or the very low risk of transmission of an infection) is outweighed by the risks of having a blood count that is too low (stress on the heart, kidneys, and brain).

8. **Drains** are used to draw off any accumulating fluid after surgery. The bulb should be kept collapsed at all times. There will be one drain in each inner thigh used for reconstruction and one or two drains per reconstructed breast. The fluid will need to be removed when the drain is no longer collapsed. Please keep a record of *when* and *how much* fluid is emptied from the bulb in *milliliters*. Record the output from each drain separately. Bring this record with you to any office appointment where you still have drains. Usually, drains are removed when they make less than 30 cc within a 24 hour period. On average, they will stay in for 2-3 weeks.

   Drains may be cumbersome. To avoid having them dangle or tug you may wish to purchase a "fanny pack" that is worn round the waist and can function as a receptacle for your drains or a belt to which you can safety pin your drains.

9. **Wound Glue.** The wounds have been sealed with Dermabond. No wound care except cleaning is required. Do not use ointment over Dermabond glue as it will dissolve the glue.

10. **Showering.** You may shower as soon as you are discharged home. The incisions can get soapy and wet, but avoid soaking them or applying full showerhead pressure to them.

11. **Bras.** Your surgeon will inform you once its okay to wear a surgical bra. Please avoid wearing underwire bras until approved by your surgeon.

12. **Arm activity.** Do not put any pressure on your armpit or the top of your chest as this may compromise blood flow to your breast reconstruction. Once you are instructed by your surgeon you may begin gentle range of motion exercises with your arm on the side of your reconstruction. This can include making small and then progressively larger circles by rotating your arm at the shoulder and then walking your hand up and down a wall with your elbow straight and only moving your shoulder joint.

13. **Thigh compression.** At first, the thigh(s) used to harvest your TUG flap will be wrapped in ACE bandages from the feet to the groins to reduce swelling, bruising, and fluid accumulation. Ideally, you should wear these full leg wraps all of the time, except showering, for 1 to 2 weeks. Shorter wraps, from the knees to the groins can then be worn for 12 hours a day (while sleeping and at home) for another 4 weeks. The ACE wrap should be tighter at the feet or knees and then slightly looser as the wrap progresses to the groin.

OTHER POST-OPERATIVE INSTRUCTIONS

1. You may gradually resume normal daily activities once you are discharged home, being careful to avoid any activity that causes pain or discomfort. Strenuous or sexual activities and exercises are to be avoided for 6 to 8 weeks – your doctor will guide you on when to advance your activity. If it hurts, back off. Start slow and progress as tolerated.

2. Driving may be resumed when a sharp turn of the steering wheel will not cause pain and when you are off regular narcotic pain medicine.

3. Bruising and swelling are normal. This will disappear with time.

4. Unusual sensations like numbness, sharpness, and burning are common in the chest and operated thigh(s) during the healing process. These sensations may last several months and will gradually disappear.

5. Wound healing problems and scar widening of the inner thighs are more common with TUG flaps than other types of breast reconstruction. This is because hygiene is more difficult to maintain in the groin, there is movement of the groin with walking, and the weight of the thigh skin pulling on your incision. Sutures may spit, and look somewhat like a pimple. The edges of the wound may separate – and may require treatment with local wound care, as instructed by your surgeon. Your surgeon may recommend additional scar care like silicone gels or sheets during follow-up visits.

6. If you have any questions, sudden onset of extreme pain, fever, or redness, or a new wound, please call Dr. Myckatyn or Dr. Tenenbaum's office at **314-362-4263** or **314-996-8800.**

RETURNING TO WORK:

1. Working from home : 4 weeks
2. Desk job : 4 to 6 weeks
3. Up on your feet a lot : 6 to 8 weeks
4. Manual labor : 8 to 10 weeks

GENERAL INFORMATION:

1. Strenuous activity/heavy lifting of objects greater than 10 lbs should be avoided for 6 weeks.

2. All incisions will be extremely sensitive to sunlight for one year. Direct sun contact is to be avoided and use a sunscreen with SPF 30 or greater for the first 6 months and at least SPF 15 for the next 6 months. Excellent sunscreen options are offered through our various skin care lines.

3. Please take all medication carefully and as directed.

4. If you have nausea, vomiting, rash, shortness of breath, or diarrhea after taking your medications, please call the office.

5. If you develop a fever (oral temperature greater than 101), redness or increased pain at the surgical incisions, please call us immediately.

6. **Remember that breast reconstruction is staged. Your result following this procedure will not be perfectly symmetric. Usually, other procedures can be performed to alter your reconstructed breast, more closely match the healthy breast, and reconstruct the nipple and areola.**

FOLLOW-UP (return visits):

Follow-up after surgery varies based on the extent of the procedure, any pre-existing health conditions you may have, how far away you live, and in the unusual event where there is a complication.

For many patients follow-up includes:

a) Follow-up with registered nurse or physician's assistant to pull drains, check wounds, and to address any minor questions or concerns in 1 week after discharge
b) physician follow-ups after discharge at 1 week, 3 weeks, 6 weeks, 3 and 6 months and to address any concerns

PRESCRIPTIONS:

You will be provided with prescriptions for medicines upon discharge from the hospital. Usually this will include aspirin and Lovanox to reduce the risk of blood clots in the flap or your veins and pain medicine and an antibiotic.

You will also be asked to take Aspirin daily for 1 year. If you require a surgical procedure during that year, please consult both your surgeon for that procedure as well as your breast reconstruction surgeon to advise on when to stop and restart your Aspirin.

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