

BREAST RECONSTRUCTION GUIDE



AUSTIN PLASTIC & RECONSTRUCTIVE SURGERY

CONGRATULATIONS ON YOUR CHOICE



Left to right: Drs. Haley Bunting, Christine Fisher, Tosan Ehanire
and Danielle Dumestre

AUSTIN PLASTIC & RECONSTRUCTIVE SURGERY IS:

- Associated only with accredited medical facilities
- Compliant with a strict code of ethics
- Committed to continuing medical education,
including patient safety
- Your partner in cosmetic and reconstructive
plastic surgery



In preparing for your surgery, our plastic surgeons have compiled all the information that you may need before, during, and after your procedure. Please read these instructions so we can review any outstanding questions before surgery.

Medications to Avoid 3

Supplements to Exclude 4

Supplements to Include 5

Pre-operative Instructions 8

Pre-operative Checklist 18

Post-operative Instructions19

Procedure-specific Instructions 25

 Tissue Expander or Implant Breast Reconstruction 25

 DIEP Flap Breast Reconstruction27

 Oncoplastic Breast Reconstruction.....28

 Breast Reduction.....29

 Breast Reconstruction Revision.....29

 Fat Grafting & Liposuction29

Long-term Recovery Notes 30

Deep Vein Thrombosis31

and Pulmonary Embolism

Emergencies 34

MEDICATIONS TO AVOID PRIOR TO SURGERY

All patients scheduled for surgery should discontinue taking products containing aspirin, fish oil, and vitamin E supplements for 2 weeks prior to the procedure. Discontinue NSAID use (ibuprofen/Aleve) 3 days before surgery; use extra strength Tylenol instead. These medications can cause bleeding problems during and after surgery. Also review the list below. Please notify our office if you have been regularly taking any of the following medications, and discuss with your prescribing physician how to safely discontinue them prior to surgery and resume them after surgery.

THE FOLLOWING IS A LIST OF MEDICATIONS TO BE AVOIDED:

Advil (for 3 days before surgery)	Coricidin
Aleve (for 3 days before surgery)	Coumadin (discuss with your doctor)
AlkaSeltzer	Darvon Daypro
Anacon	Disalcid
Anaprox or Anaproxen (for 3 days before surgery)	Doan's
Aspercream	Dolia
Aspirin	Dolobid
Baclofen	Dristan
BC headache powder	Easprin
Caprin	Ecotrin
Cephalgesic	Eliquis
Cheracol	Excedrin
Clinoril	Ginkgo
Conaterol	Ibuprofen (for 3 days before surgery)
Congespirin	Indocin/Indomethacin
Cope	Midol (for 3 days before surgery)

Mobic	Relafen
Motrin (for 3 days before surgery)	Robaxisal
Naprosyn/Naproxen Sodium (for 3 days before surgery)	Sineaid or Sineoff
Norgesic or Norgesic Forte	Soma with Codeine
Nuprin	Soma compounds
Peptobismol	Stero-Darvon with ASA
Percodan	Toradol
Persantine	Trialgesic
Persistin	Triaminicin
Plavix	Warfarin
Red wine	Xarelto

SUPPLEMENTS TO EXCLUDE 3 WEEKS BEFORE AND AT LEAST 1 WEEK AFTER SURGERY

Many of the following supplements will thin your blood and increase your risk of complications.

Bilberry	Garlic	Licorice
Cayenne/Capsicum	Ginger	Omeegas
Curcumin	Ginkgo	Red Clover
Dong Quai	Ginseng	St John's Wort
Echinacea	Goldenseal Pressure	Turmeric
Ephedra	Green Tea	Vitamin E
Feverfew	Hawthorne	Yohimbe
Fish Oil	Kava	



SUPPLEMENTS TO INCLUDE BEFORE & AFTER SURGERY

This is a detailed supplement list with rationale. For the majority of patients an over-the-counter multivitamin plus iron contains the most important vitamins and minerals for optimal wound healing, which are vitamins A, C, E, zinc and iron (starred below). Vitamin E can increase bruising; discontinue one week before surgery.

SUPPLEMENT	MECHANISM OF ACTION	DOSAGE RANGE
Protein supplements	Provides building blocks for healing, required for new cell growth and repair .	150 g per day from a balanced diet, or vegetarians add whey/vegan protein powder.
Multivitamin	Vitamins promote wound healing, act as cofactors for multiple processes.	As directed by packaging. Centrum or other over-the-counter brands are excellent. NOTE: If formula contains Vitamin E, DISCONTINUE 1 week prior to surgery.
* Vitamin A (Carotenoid/Retinol Palmitate)	Antioxidant, required for new cell growth, immune system function and collagen strength.	10,000 - 20,000 IU per day 1 week before and 3 weeks after surgery.
* Vitamin C (Ascorbic Acid)	Antioxidant, necessary for tissue growth and repair; has a primary role in collagen formation.	1,000 mg per day 1 week before and 3 weeks after surgery.
B vitamins	Crucial for energy production and the formation of red blood cells, which carry oxygen.	Take a "B complex" daily, or a multivitamin with B6, B12, and folic acid.
* Zinc	Antioxidant, essential role in both collagen formation and protein synthesis in healing after surgery.	20 - 30 mg per day.
* Iron	Essential mineral in the creation and functioning of hemoglobin, which carries oxygen in red blood cells. ESPECIALLY KEY if you are anemic or have a low blood count.	18 - 325 mg per day (as directed by packaging). May need a stool softener, such as Colace or Miralax (1 tbs/day), to prevent constipation. NOTE: An iron supplement is not necessary if taking multivitamins that contain iron.
Probiotics	Restore natural gut bacteria which can be affected by antibiotics.	Start probiotic BEFORE surgery, as instructed by packaging. Probiotics are also available in certain yogurts and other natural fermented foods.

SUPPLEMENTS OF POTENTIAL BENEFIT

SUPPLEMENT	MECHANISM OF ACTION	DOSAGE RANGE
Omega 3s	Reduce inflammation and improve circulation.	2 1,000 – 3,000 mg per day starting AFTER surgery.
Arnica	Naturopathic remedy for bruising and swelling.	Take after surgery as directed by packaging. Available as a cream and an oral tablet.
Bromelain	Proteolytic enzyme used to minimize inflammation and soft tissue injury. Reduces bruising and swelling.	1,000 mg 3 times per day between meals. Start 72 hours before surgery.
Arginine	An amino acid involved in collagen synthesis and protein deposition in the healing of wounds; enhances immune activity.	1,000 – 6,000 g per day after surgery.
Glutamine	An amino acid involved in collagen synthesis and protein deposition in the healing of wounds; enhances immune activity.	Up to 15 g per day in divided doses. Glutamine powders allow for higher dosing.



ENHANCE RECOVERY AFTER PLASTIC SURGERY

There are many nutritional supplement options available to promote wound healing after surgery.

- Nutrition profoundly influences the wound healing process.
- Nutritional supplementation can have a positive effect on recovery and healing, including helping to reduce the length of your recovery and risk of postoperative infections and complications.

UP YOUR PROTEIN INTAKE

Start nutritional supplementation three weeks before surgery. **It is ideal to attain as much protein from your diet as possible. Aim for 100-150 g per day. This is especially important for patients after weight loss surgery or who eat vegetarian diets.** If supplementing your protein intake with protein powder, use one scoop of protein powder per day the first week, then two scoops per day the second week and three scoops per day the third week. Continue at three scoops per day until three weeks after surgery. Protein powder may be mixed into a smoothie to improve its flavor.

EXAMPLE SMOOTHIE RECIPE:

- Protein powder (1-2 scoops, based on serving size)
- 8-12 ounces of water, milk, or nondairy milk such as almond milk
- 1 cup of fresh or frozen berry mix or other fresh fruit, such as banana
- Handful of spinach or other greens
- 1/2 cup Greek yogurt (optional)
- Ice

LIMIT YOUR SUGAR INTAKE, IT HELPS WITH HEALING

We recommend that you avoid excess sugar in your diet before and after surgery, including processed carbohydrates such as cookies, candy, and soda. Eating “clean” by focusing on the following foods will aid in a faster recovery:

- Lean protein, such as chicken and fish
- A variety of vegetables
- Complex carbohydrates such as brown rice and sweet potatoes

Avoid bread, pasta, and simple carbohydrate foods.



PRE-OPERATIVE INSTRUCTIONS

A successful surgery requires a partnership between you and your surgeon. Your best result will be with optimal healing.

The following instructions are essential for a safe experience and an optimal outcome. If you cannot comply with these instructions, please notify our office.

THREE TO SIX WEEKS BEFORE SURGERY

ALL NICOTINE EXPOSURE IMPAIRS HEALING, INCLUDING SECOND-HAND VAPE PEN “STEAM” EXHALED NEAR YOU, OR INHALATION OF SECOND-HAND CIGARETTE SMOKE.

STOP SMOKING OR USING E-CIGARETTES OR ANY NICOTINE DELIVERY PRODUCTS, PREFERABLY FOR AT LEAST SIX WEEKS PRIOR TO SURGERY. SURGERY WHEN USING NICOTINE GREATLY INCREASES THE RISK OF TRAGIC CONSEQUENCES. Nicotine greatly impairs your ability to heal. It compromises circulation by constricting blood vessels, which can lead to skin and fat death (necrosis) after surgery. It impairs the immune system by disabling white blood cells and reducing the oxygen-carrying capacity of red blood cells, increasing the chance of infection after surgery.

If you do not have active breast cancer that requires you to have surgery on a short timeline, we require you to be nicotine free for at least six weeks prior to (and after) surgery. For patients with breast cancer who require surgery less than six weeks out from their consultation date with us, we ask that you remain nicotine free for as long as possible before surgery, and for at least six weeks after surgery.

Multiple studies have shown nicotine use greatly affects healing for 4 weeks after its last use. E-cigarettes, nicotine vaporizers, nicotine patches and nicotine gum are also nicotine delivery devices and will negatively impact your recovery after surgery for the same reasons. Please note that exposure to secondhand smoke can also impair wound healing.

PLAN YOUR PREOPERATIVE CLEARANCE AND TESTS: If suggested by our team, arrange to see your primary care physician for a full history and physical. Additional tests such as labs, a chest X-ray or an EKG heart tracing may be necessary depending on your age and medical history. Make sure all tests are received by our office at least 2 weeks prior to your surgery.

PRACTICE PROPER FITNESS: Walking, jogging or swimming and low-weight strength training several times per week can help enhance your strength and improve your postoperative recovery.

GOOD NUTRITION: Eat well in the weeks prior to surgery. Crash or fad dieting, overeating or high alcohol intake can greatly affect your health and wellbeing. Eat a diet high in protein, drink plenty of water and consider adding a multivitamin with iron to your diet.

PRE-OPERATIVE NUTRITIONAL SUPPLEMENT: Take a multivitamin with iron, or use an approved nutritional supplement daily. Start a protein powder supplement.

PREPARE AND PLAN: Schedule time off work and arrange any support you may need in the days following surgery. Give yourself the gift of the right amount of time to heal. You may need help with housework, childcare, shopping and driving. It is always better to schedule more recovery time than you think you'll need. Make sure a responsible adult will drive you to and from surgery, and that one can stay with you in the first week after surgery. For reconstructive surgeries such as a DIEP flap or tissue expanders, you need to have someone with you full time after you go home from the hospital for at least a week. You may not be able to drive for up to 2 weeks after surgery, so arrange for someone to take you to any follow-up appointments during that time.

PURCHASE POSTOPERATIVE GARMENTS: Wearing an appropriate support garment after surgery reduces swelling and improves healing. We can recommend specific products that provide proper support and ease of use. You may go home from surgery in a hospital-provided bra, but you may want to purchase additional garments post-operatively. We recommend you have two garments so you have one to wear while washing the other, but please note your size may change as swelling goes down. In preparation for breast surgery you should have two front-closure bras without an underwire, two inches larger than your normal band size to account for swelling. If undergoing a surgery that includes liposuction, we will recommend specific compression garments to wear. Our office sells Marena brand post-operative garments at wholesale pricing. Please clarify which garments are recommended specifically for you at your pre-operative appointment in our office.

NOTE: If you are a breast cancer patient, you can get Velcro front-closure lounge tops with internal pockets for drains and post-surgical pillows for free from the Breast Cancer Resource Center (BCRC). Contact them at (512) 524-2560 or ask our office for a referral.

BE HEALTHY BEFORE SURGERY: In the weeks before surgery maintain the best of health and hygiene. A lingering viral illness such as a cold or other illness could result in your surgery being rescheduled. Please address illnesses immediately, and let our office know if you have an illness or change in health in the weeks before your surgery. It is best to be safe.

ENJOY LIFE AND RELAX: Stress and anxiety negatively affect your surgery experience and recovery. One of the biggest causes of anxiety is the fear of the unknown. Expect that as your surgery date gets closer, you're going to have more questions that come up. Write them down as you think of them so you can ask at your pre-operative visit, or you can call our office and speak with an experienced patient care coordinator or nurse.

TWO TO THREE WEEKS BEFORE SURGERY

PREPARE AND PLAN: Put your schedule together for the day before, the day of and the first few days following surgery. Share your plan with your key support people.

FILL PRESCRIPTIONS: If given prior to surgery, fill your prescriptions and purchase over-the-counter medications to have at home ready for you before your surgery day. You may receive the following:

PAIN MEDICATION:

Percocet/Oxycodone, Norco/Hydrocodone, Tylenol #3/#4, or Tramadol as prescribed for moderate to severe pain.

NOTE: Most of these medications contain Tylenol, so do not take over-the-counter Tylenol/acetaminophen at the same time as prescription pain tablets that contain acetaminophen (APAP)

ANTI-INFLAMMATORY MEDICATION:

Motrin/ibuprofen (600-800 mg three times a day) or Aleve/naproxen (two tabs twice a day). Take on a scheduled basis AFTER surgery to help reduce post-operative inflammation (usually starting 24 to 48 hours after surgery).

NOTE: These medications are safe to take with Tylenol or medications that contain Tylenol (acetaminophen).

ANTIBIOTIC:

Keflex, 500 mg every 12 hours, Clindamycin 300 mg every 6 hours, or Doxycycline 100mg every 12 hours may be prescribed to be started after certain surgeries. This will be discussed at your pre-operative visit.

ANTINAUSEA MEDICATION:

Odansetron, 4 mg every 6 hours as needed; Phenergan suppository (will be given to have at home in case of vomiting); Scopolamine patch, 1.5 mg applied behind the ear, lasting 72 hours; and/or Emend, a one-time dose medication may be prescribed to be taken before your procedure

ANTICOAGULANT:

Eliquis or Lovenox may be prescribed to start after surgery for some patients to help prevent blood clots.

PREVENT CONSTIPATION:

Miralax, 1/2 capful on the night before surgery and 1 serving daily for 7 days after surgery to prevent constipation, which can be caused by narcotic pain medications and anesthesia.

Colace 100 mg twice a day after surgery as long as you are taking narcotic pain medication.

PRE-OPERATIVE CLEARANCE AND INFORMATION: If instructed to get a medical clearance prior to surgery, be sure to undergo ALL pre-operative testing that was ordered. Make certain all test results are received by our office two weeks prior to your surgery. If medical clearance is not received, your surgery may need to be canceled or delayed.

FITNESS: Exercise reasonably, at least walking several times per week. Avoid new strenuous activities that could potentially injure or sprain your shoulders, back, pectoral muscles and arms or upper body.

GOOD NUTRITION: Continue taking your supplements as directed. Stay hydrated with unsweetened beverages. You should also start to decrease the amount of alcoholic beverages you consume. We ask that you avoid alcohol, especially red wine in the week prior to surgery.

NO SMOKING: No nicotine products, including e-cigarettes, nicotine vaporizers and nicotine gum. Stay away from secondhand smoke, too. Your healing and safety depend on this.

LEAD A HEALTHY LIFESTYLE: Practice good hand washing and avoid large crowds or individuals who are ill. Do not risk catching a virus or cold by avoiding exposure to others with symptoms of illness.

Refer to the given list of medications and herbal supplements to avoid. STOP taking the mentioned medications three weeks before your surgery.

COMMON EXAMPLES OF MEDICATIONS THAT CAUSE BLEEDING PROBLEMS DURING SURGERY INCLUDE:

Aspirin and all products containing aspirin	Ibuprofen and other over the counter anti-inflammatory agents (for minor pain you may use Tylenol)	Omega 3 supplements
Fish oil		Vitamin E supplements
Green tea and green tea extracts		





ONE WEEK BEFORE SURGERY

MAKE PLANS FOR THE DAY OF SURGERY: Plan to arrive two hours before surgery. You will be instructed as to your exact arrival time at your pre-operative appointment. There are comfortable waiting areas for your friends and family members.

REVIEW YOUR PRESCRIPTION ORDERS AND INSTRUCTIONS: If given prior to surgery, check your prescriptions for accuracy. Be certain all medications are filled before surgery.

CONTINUE TO PRACTICE HEALTHY HABITS, NUTRITION AND FITNESS: No strenuous exercise. No saunas, hot tubs, steam baths or mud wraps. Continue to avoid any nicotine products and any second-hand exposure.

ALCOHOL: Avoid alcohol consumption the week before surgery, particularly red wine which can cause increased bruising.

THC: Products containing THC including those inhaled, edibles, and tinctures should be avoided in the week before surgery because of the possible interference with general anesthesia.

FIND YOUR COMFORT ZONE: Locate the most comfortable place where you can gently recline and recover. You don't want to be testing locations or pillows the day of surgery. Shop for magazines, books, music, TV shows, and other forms of easy entertainment to keep you busy in the 1-2 weeks following surgery.







WAX OR SHAVE YOUR UNDERARMS, LEGS, OR OTHER AREAS: Three days before surgery, shave the surgical area, or you may wax one week prior to surgery. Shave/wax your underarms in anticipation of breast surgery and the hair on your upper pubis if undergoing a DIEP flap reconstruction. Do not shave/wax the day before surgery as it can increase your risk of infection.

PREPARE AND FREEZE MEALS FOR 1 TO 2 WEEKS: Consider quick snacks, protein shakes, soup, frozen dinners, yogurt, oatmeal and cottage cheese. Be sure to have adequate protein options as the body needs it for proper healing. Consider limiting high-sodium foods to reduce swelling. Costco has excellent, easy family meals.

SHOWER PREPARATION: Consider a hand-held shower head and bathroom chair.

ONE DAY BEFORE SURGERY

PACK YOUR BAG FOR THE DAY OF SURGERY: This should include:

-  All paperwork—remember to bring ID and insurance cards.
-  Updated list of prescription medicines and supplements.
-  Reading glasses, if used.
-  Warm, clean cotton socks and non-slip house shoes.
-  Loose fitted, comfortable clothes. Pants should have a soft waistband and tops should button, Velcro, or zipper in the front.
-  Book to read, DVDs, laptop/iPad. (Wifi is available.)

CONFIRM YOUR ROUTE TO AND FROM SURGERY with the responsible adult who will drive you.

THE NIGHT BEFORE: Use any gentle, fragrance-free soap. Shampoo your hair. Do not use any hair gel or other styling products, scented skin creams or moisturizers. Do not use hair spray, perfume, or cosmetics. Avoid dark fingernail polish as it can interfere with monitoring equipment. Do not shave within 24 hours of your surgery; this should be done three days before surgery (or ideally one week before surgery for waxing). If your surgery is being done at a hospital or surgery center, follow any instructions given by the facility.

DO NOT EAT OR DRINK ANYTHING FOR 8 HOURS BEFORE THE SURGERY, UNLESS OTHERWISE INSTRUCTED: Anything more than a small amount of water as needed for brushing teeth or swallowing medication may result in the need to cancel surgery. This includes candy, gum, mints, juice and coffee. Sorry, no exceptions for safety reasons.



ON THE DAY OF THE SURGERY

For long operations we may ask you to drink a clear glucose-containing beverage two hours before surgery; otherwise, EIGHT HOURS BEFORE SURGERY — NOTHING BY MOUTH: Anything more than a small amount of water as needed for brushing teeth or swallowing medication may result in the need to cancel surgery. This includes candy, gum, mints, juice and coffee. Again, sorry.

YOU MAY WEAR DEODORANT, BUT DO NOT WEAR OTHER COSMETICS, JEWELRY OF ANY KIND, CONTACT LENSES, HAIR CLIPS, BODY PIERCING(S): If there is something you cannot remove, let the admitting nurse know right away.

WEAR COMFORTABLE, CLEAN, LOOSE-FITTING CLOTHING: Wear only a top that zips, Velcros or buttons in the front. Do not wear pullovers, turtlenecks or any tight-fitting top or bottom. You may bring a robe or pajamas. Wear slip-on shoes.

ARRIVAL TIME: Arriving two hours before surgery gives our nursing staff plenty of time to get you checked in and get you ready. Surgery times given are an estimate and there may be a wait before your surgery starts. Bring a book, laptop or something to keep you occupied while you wait to have surgery.


MEDICATIONS: Bring medications with you on the day of surgery, if instructed to do so.



Left to right: Drs. Haley Bunting,
Danielle Dumestre, Christine Fisher
and Tosan Ehanire

PRE-OPERATIVE CHECKLIST

Use this quick list to get ready for surgery.

 The weeks before surgery:

- ☐ All nicotine gum, patches, vapor and cigarettes stopped and avoided as soon as possible before surgery
- ☐ Testing completed at least 2 weeks before surgery. This may include:
 - Labs (bloodwork)
 - EKG
 - Medical clearance – this may be required from your primary care physician, cardiologist, or other physician
- ☐ Time off work arranged
- ☐ Consent forms reviewed and signed
- ☐ Transportation to and from surgery arranged
- ☐ Responsible adult identified to drive and stay with you for at least 24 hours after receiving anesthesia

 One week before surgery:

- ☐ Current medications and supplements reviewed along with instructions on which, if any, should be avoided the week before surgery
- ☐ Alcohol avoided the week before surgery, especially red wine
- ☐ Prescriptions and pharmaceutical supplies purchased
- ☐ Post-surgical garments purchased
- ☐ Shave (3 days before surgery) or wax (1 week before surgery)

 The day before surgery:

- ☐ First dose of Miralax started to prevent constipation after surgery
- ☐ Body washed with antibacterial soap the night before surgery
- ☐ No lotions or perfumes applied
- ☐ Dark fingernail polish removed (it interferes with the pulse oximeter)
- ☐ Piercings and jewelry removed
- ☐ DO NOT shave

 The day of surgery:

- ☐ Nothing at all to eat or drink for 8 hours before surgery, unless otherwise directed
- ☐ Pillow packed to brace against in car ride home
- ☐ Contact lenses left at home; wear glasses instead
- ☐ Wear clothes that are easy to take on and off



POST-OPERATIVE INSTRUCTIONS

CAREGIVER: It is very important to have someone who can assist you with getting around and taking your medications for at least a few days after you go home, longer for some reconstructive surgeries.

NAUSEA: You may experience nausea during the first three to four days. If needed, take an anti-nausea pill one hour before taking your pain medications or antibiotics, and take your pain tablets with food.

COMPRESSION STOCKINGS: For certain patients at high risk for developing blood clots, these may reduce your risk of a clot forming in your legs. It may be recommended to you to wear compression stockings for the first 5 days after surgery. If recommended, we will provide them on the day of surgery.

PAIN MEDICATION: Your post-op discomfort can be controlled by prescribed painkillers. Take pain tablets with a snack to reduce the possibility of nausea. Do not take narcotic pain medicines (Percocet/Norco) with Tylenol at the same time. You will also likely be told to start an anti-inflammatory such as Motrin/ibuprofen (600-800 mg three times a day) OR Aleve/naproxen (two tabs twice a day). These over-the-counter medications can safely be taken with your prescription pain medication or Tylenol for added synergistic benefit.

HEALING: It is important that the surgical incisions are not subjected to excessive force, abrasion or motion during the time of healing. You may feel more tired than usual. Rest or nap daily to further improve your healing.

DRESSINGS: Leave dressings in place until instructed by our office.

SHOWER: Remove any dressings, sponges, and gauze pads once instructed by our office. Once allowed, you may take a shower with help; no soaking in baths or hot tubs. Use any mild soap such as Dial or Dove to gently wash over incisions using your hand or a clean washcloth. After showering, simply pat your incisions dry. If needed, place a dry dressing such as a gauze pad or maxi-pad to absorb drainage. If

appropriate, replace your abdominal binder or compression garment. Your compression garment may be hand washed and hung to dry. Purchase two so you always have one to wear.

Special note: If you have a breast implant or tissue expander with a drain in place, you may not shower. Only sponge bathe while the drain is in place and keep the drain site dressing dry. There is a special antimicrobial BioPatch dressing at the location where the drain enters your skin that will be changed weekly in the office while the drain is in place. You may resume showering 48 hours after the drain has been removed.

BRUISING: There will be bruising around the surgical site. Bruises usually move downward due to gravity and can thus affect adjacent or dependent areas. Sun exposure immediately after surgery can cause these bruises to become permanent skin stains.

SWELLING: may take three to twelve months to subside, depending on the procedure.

DRIVING: Do not drive a car until you have been off prescription pain medication for at least 24 hours, as your reflexes and alertness may be altered. You may also be restricted from driving for 2 weeks after certain reconstructive surgeries.

LIGHT ACTIVITY/WALKING: Our providers recommend light activity to reduce swelling and prevent leg blood clot formation. Light exercise includes walking and stretching your legs while sitting. It is important to start walking as soon as possible, typically the day after surgery. You should limit the use of your arms to less than 90 degrees after all breast surgeries, and even less for certain reconstructive surgeries. After DIEP Flap or tissue expanders, you must limit the use of your arms and keep them by your sides as much as possible for 2 weeks. If you feel pain or pulling from the incision areas, cease the movement.

ACTIVITIES: During the first two weeks after surgery, avoid strenuous activities that raise your blood pressure. This could cause a tear or bleeding at the operative site, which could result in a hematoma (collection of blood). Gentle walking is the safest exercise, especially during the first week. Generally, avoid exercises that directly stress the area of your surgery for at least four weeks, although this may differ by the extensiveness of your surgery. After this period, if cleared by your provider, cardiovascular activities such as riding a stationary bike or brisk walking can be initiated. Avoid heavy lifting, contact sports and jogging for six weeks. Six to eight weeks after surgery, you will be nearing your preoperative level. Avoid pulling at the surgical area to



maximize healing and minimize wide scarring. Even though the skin is closed, the healing process takes nine to twelve months to be complete.

NO SMOKING/NICOTINE USE: Smoking and other nicotine use reduces the oxygen in your blood and can greatly impact your ability to heal. While it is advised for your overall health that you quit smoking entirely, it is imperative that you do not smoke whatsoever until your incisions have fully healed, typically for at least six weeks post-operatively. You should also avoid exposure to secondhand smoke, which can also impair wound healing.

SCARRING: Every person's body is different, and many factors contribute to scar healing. Your scars will be firm and pink for several months. Non-smokers have a better chance of rapid healing and thinner scarring. Sun exposure thickens and darkens scars, so use a gentle zinc/titanium-containing sunblock (even on scars under your swim suit) for at least a year after surgery. Expect to wait at least nine months before your scars lighten in color and become as flat as the rest of your skin. We can also discuss other scar treatments after your incisions have healed.

GARMENTS: When you wake up from your procedure you might be in an abdominal binder, compression garment or post-surgical bra. You should plan to wear your abdominal binder for four weeks following abdominal surgery. After liposuction, you will wear the compression garment for a minimum of four weeks: day and night for the first two weeks, and during the daytime and when active for the next two to four weeks, depending on your healing. You may remove your compression garments to shower.

NUMBNESS: All surgical areas stay numb for typically four to eight weeks, or even longer after breast reconstruction surgery. Light massage will help soften your skin and lessen hypersensitivity, which you may experience as sensation returns to the area. "Zings" can occur as nerves heal after surgery.

SEXUAL ACTIVITY: You should resume sexual activity only when all of your incisions are healed, waiting a minimum of six weeks after surgery.

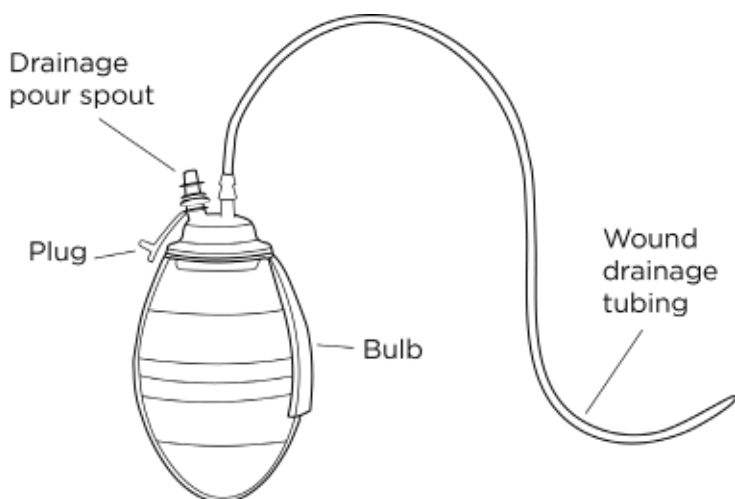
FOLLOW UPS: Regular check-ups protect against complications. If you have a problem or a concern, please call the office right away. We will see you in the office within the first week of your discharge home. Please call to schedule your first post-operative appointment if you do not make one at your pre-operative appointment with us.

DRAIN CARE

IF YOU HAVE A DRAIN, DRAIN CARE IS REQUIRED SEVERAL TIMES PER DAY IMMEDIATELY FOLLOWING SURGERY. Follow these instructions **exactly** and **record** drainage. You will be asked to provide us with your drain log at each post-op visit.

1. Always wash hands or use a gel sanitizer before caring for drain.
2. Hold the tubing securely near the skin site with one hand. With the other hand, pinch the tubing between your thumb and index finger and apply firm pressure as you strip the tubing towards the bulb.
3. If the tubing and bulb come apart, wipe the ends with alcohol and reconnect. Squeeze the bulb again and replace cap.
4. Measure the drain output using the supplied measuring cup 2 times per day or at any time the drainage bulb is more than 1/3 full and record on your drain log. You may go to once a day once the drainage is low. Dispose of drainage in the toilet.
5. After emptying, squeeze bulb tight to create suction and replace cap. Check that the bulb is always depressed (flat).
6. If you have a drain and an implant or tissue expander, **do not** shower or get the area wet until 48 hours after the final drain is removed. You will have an Biopatch antibiotic dressing that will be changed weekly at each post-op visit. Keep your dressing intact.
7. If not covered, wash the drain site with soap and water. **Do not clean drain site with peroxide or alcohol.** Apply a dab of bacitracin to drain site twice a day and cover with a bandaid or gauze and tape.
8. Always secure the drains using safety pins or a drain belt, if provided, so that there is no tension on the drain at the incision site.
9. **Do not** cut the drain tubing.
10. Occasionally drains may get pulled out. **Do not** panic. **Do not** try to reinsert the drain. Cover the drain site with a 4x4 gauze pad and antibiotic ointment, apply pressure, and call the office during business hours.
11. Call the office during business hours if there is any increase in bright bloody drainage, purulent (pus-filled) drainage, increase in pain, loss of suction (bulb won't stay depressed), leaking around insertion site, or clogged bulb.





Turn the drain collection container upside down over the measuring cup. Gently squeeze the bulb to empty it.



Squeeze the bulb flat with your hand before you replace the plug.

INCISION & SUTURE LINE CARE

Incisions and suture lines are a necessary part of surgery. These lines take many months to fully heal. There is no guarantee as to what a scar will look like once it has fully healed, however these instructions are important to achieve good outcomes.

INCISION CARE: If Dermabond (skin glue) was used on your incision, leave open to air. Do not place ointment on top of medical glue without discussing with your doctor. The glue will eventually fall off on its own. If Steri-Strips or glue tape was used, leave in place.

SHOWERING/BATHING/SWIMMING: Unless otherwise instructed, you may shower 48 hours after a surgical procedure. You should refrain from tub bathing and swimming in any lake, ocean, swimming pool or other water until after your incision lines have fully healed (about four weeks after surgery).

SPECIAL NOTE: If you have a breast implant or tissue expander with a drain in place, do not shower. Only sponge bathe while the drain is in place and keep the drain site dry. You may shower daily with mild soap like Dove starting 48 hours after the drain has been removed.

SUTURE REMOVAL: Most of your sutures are absorbable and are placed internally. They will be absorbed over the course of two to six months. However, a few stitches may be placed externally. These typically are removed one week after surgery.

INITIAL HEALING: Once your incision lines have closed at about two weeks, you may wish to apply a gentle skin moisturizer such as Aquaphor to the suture line. This aids in softening the scar and may alleviate any itching in the surgically treated area. Choose something fragrance free and free of glycolic acid, retinoid or other possible irritating ingredients.

Once your incision lines have sealed at about four to six weeks, you may apply scar therapy treatments, silicone-based ointments (such as BioCorneum Scar Gel) or silicone sheets to the incision. These can be purchased at a pharmacy, our office, or through Amazon (ask for more information).

Avoid any vigorous physical activity for six weeks after most surgeries. Direct trauma and physical stress may result in injury, including a separation of the suture edges or a wide scar.



PROCEDURE-SPECIFIC INFORMATION

TISSUE EXPANDER OR IMPLANT BREAST RECONSTRUCTION

For many patients, the first step in breast reconstruction involves placement of a tissue expander, a breast-shaped device with an easy-to-access port. This inflatable device is wrapped in a regenerative support scaffold and placed carefully under the mastectomy skin at the time of your initial mastectomy surgery. In some rare cases, this is placed under the pectoralis muscle. When appropriate, our surgeons prefer to do a less-invasive reconstruction in which the tissue expander and/or implant is placed on top of the pectoralis muscle. Depending on the desired size of your new breast, the tissue expander will be expanded at weekly office visits by the addition of saline through the port. This will stretch your skin until it can accommodate your desired size, and help mold an aesthetically beautiful breast pocket for your final reconstruction.

- Your incisions will be closed in multiple layers using absorbable sutures. The surface may be sealed with a medical glue and/or glue tape, or you may have a vacuum dressing in place.
- Strip drains twice daily and record the drainage in your drain log. See complete drain instructions.
- Sponge bathe only until your drain is removed, keeping the drain site completely dry. You can shower as normal beginning 48 hours after your last drain is removed.
- You must sleep on your back while tissue expanders are in place. You may find it more comfortable to sleep in a recliner. If you choose to sleep in bed, use pillows to prop your head up and to keep you from rolling over.
- For the first two weeks after surgery, rest at home. Limit yourself to light activity, with limited use of arms.
- For weeks 2-4, you may raise your arms to 90 degrees. You may also do gentle walking outside, light shopping, and go out to eat. Don't attempt anything you couldn't do while holding a cup of coffee.

- After 4 weeks, you may start full range of motion with your arms and ease back in to physical activity. You must listen to your body and discontinue any activity that causes pain.
- Do not apply any ice or heating pads to the incisions/breasts.
- If you have any concerns, call the office to discuss during business hours.

TISSUE EXPANDER AND IMPLANT BREAST RECONSTRUCTION

Subpectoral Implant Breast Reconstruction



Prepectoral Implant Breast Reconstruction



There are two options for tissue expander and implant placement following mastectomy. A subpectoral reconstruction places the tissue expander and final implant below the pectoralis muscle, while a prepectoral reconstruction places the tissue expander and final implant on top of the pectoralis muscle.

Subpectoral Implant Breast Reconstruction

- A)** At the time of mastectomy, the lower edge of the pectoralis muscle is separated from the underlying chest wall, allowing a tissue expander to be placed underneath for a subpectoral breast reconstruction. A tissue matrix, such as AlloDerm®, is attached to the lower edge of the pectoralis muscle and the chest wall to span the lower portion of the implant; this acts as an "internal support bra."
- B)** Later, the tissue expander is gradually inflated with saline by injection via its port in the office. It stretches out the muscle and overlying skin over the course of a few months to create a pocket for an implant of the desired size.
- C)** During a second surgical procedure, the tissue expander is removed and the final implant is placed in the pocket below the stretched-out

muscle. In the same surgery, fat grafting can be performed to restore fullness to the upper pole of the breast and to smooth contours. The muscle over the implant can cause a more painful recovery and can cause a long-term "dynamic deformity" as the breast can move when the patient moves her arms.

Prepectoral Implant Breast Reconstruction

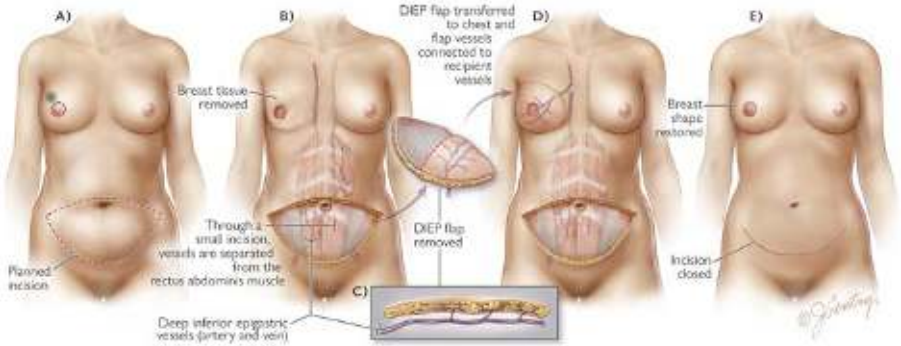
- D)** At the time of mastectomy, the tissue expander is placed on top of the pectoralis muscle for a prepectoral breast reconstruction. A tissue matrix, such as AlloDerm®, is attached to the pectoralis muscle to cover the implant; this acts as an "internal support bra."
- E)** Later, the tissue expander is gradually inflated with saline by injection via its port in the office. It stretches out the overlying skin over the course of a few months to create a pocket for an implant of the desired size.
- F)** During a second surgical procedure, the tissue expander is removed and the final implant is placed in the pocket below the stretched-out skin. In the same surgery, fat grafting can be performed to restore fullness to the upper pole of the breast and to smooth contours.

DIEP FLAP BREAST RECONSTRUCTION

A deep inferior epigastric perforator (DIEP) flap is an advanced breast reconstruction that uses your own excess abdominal tissue, not an implant, to create your new breast without removing any underlying muscle or damaging your motor nerves. Your recovery requires typically 3-4 days of rest in the hospital to monitor the flap before you are sent home.

- Your incisions will be closed in multiple layers using absorbable sutures. The surface will be sealed with a medical glue and/or glue tape.
- Your abdominal closure may feel tight. Keep your body flexed when in bed or relaxing in a recliner by placing two pillows behind your back and another under your knees. When walking during the first week you may need to bend at the knees and flex at the hips to relieve tension.
- Strip drains twice daily and record the drainage in your drain log. See complete drain instructions.
- Shower daily with a mild soap. Pat area dry.
- For the first two weeks after surgery, rest at home. Take multiple walks throughout the day, sleep as necessary, and limit any activity with the arms.
- For weeks two to four after surgery, you may take short trips out of the house, such as light shopping or going out to eat. Limit yourself to light activity; don't attempt anything you couldn't do while holding a cup of coffee.
- For the first four to six weeks after surgery, no twisting, lifting more than 5-10 pounds, no pressure on breasts, no side or stomach sleeping. You may elevate your arms to shower, but not above the shoulders.
- Do not apply any ice or heating pads to the incisions/breasts.
- If you have any concerns, call the office to discuss during business hours.

DIEP FLAP BREAST RECONSTRUCTION



A) The deep inferior epigastric artery and the deep inferior epigastric vein provide the blood supply to the skin and fatty tissue that comprise a deep inferior epigastric (DIEP) flap. The planned incision of the flap is illustrated here. When the mapping CT-Angiogram demonstrates adequate blood vessels low in the flap, Dr. Fisher plans a low flap harvest to create a more artistic abdominal appearance with a lower final scar position than a typical DIEP flap result.

B) The DIEP flap blood vessels are meticulously separated from the abdominal muscle, leaving the muscle intact at the donor site. The DIEP flap is then surgically removed from the abdomen. In the case of a mastectomy of one breast (as shown here) half the flap tissue is discarded. In the case of a bilateral mastectomy, both breasts are reconstructed and both sides of the flap are used.

C) A mastectomy removes the breast gland, and the DIEP flap replaces the gland with living fat from the abdomen. The skin and fat from the abdomen are removed with the main blood vessel that nourishes that area of the abdomen. No muscle or fascia are removed.

D) The DIEP flap is transferred to the chest. The artery and vein are connected to blood vessels at the recipient site using microsurgical techniques in order to restore blood flow to the flap. The flap is then aesthetically sculpted to restore the shape of the breast.

E) The resulting horizontal abdominal scar from the harvest of the DIEP flap is generally well concealed in most clothing and bathing suits and is similar to that after a cosmetic tummy tuck surgery. Low scar position on the abdomen results in a more aesthetic result that in many cases looks like a tummy tuck scar.

ONCOPLASTIC BREAST RECONSTRUCTION

- ✓ Your incisions will be closed in multiple layers using absorbable sutures. The surface will be sealed with a medical glue and/or glue tape.
- ✓ Strip drains and record the drainage in your drain log. See complete drain instructions.
- ✓ Once allowed, shower daily with a mild soap. Pat area dry.
- ✓ For the first two weeks after surgery, rest at home. Take multiple walks throughout the day, sleep as necessary, and limit any activity with the arms. Limit yourself to light activity; don't attempt anything you couldn't do while holding a cup of coffee.
- ✓ For the first four weeks after surgery, no twisting, lifting more than 5-10 pounds, no pressure on breasts, and no side or stomach sleeping. You may elevate your arms to shower, but not above the shoulders.
- ✓ Do not apply any ice or heating pads to the incisions/breasts.
- ✓ If you have any concerns, call the office to discuss during business hours.

BREAST REDUCTION

- Your incisions will be closed in multiple layers using absorbable sutures. The surface will be sealed with a medical glue and/or glue tape.
- Strip drains and record the drainage in your drain log. See complete drain instructions.
- Once allowed, shower daily with a mild soap. Pat area dry.
- For the first two weeks after surgery, rest at home. Take multiple walks throughout the day, sleep as necessary, and limit any activity with the arms. Limit yourself to light activity; don't attempt anything you couldn't do while holding a cup of coffee.
- For the first four to six weeks after surgery, no twisting, lifting more than 5-10 pounds, no pressure on breasts, no side or stomach sleeping. You may elevate your arms to shower, but not above the shoulders.
- Do not apply any ice or heating pads to the incisions/breasts.
- If an absorbable support mesh was used to improve long-term shape, it is painful to feel the edge on deep palpitation. This will resolve over the coming months.
- If you have any concerns, call the office to discuss during business hours.

BREAST RECONSTRUCTION REVISION

- Your incisions will be closed in multiple layers using absorbable sutures. The surface will be sealed with a medical glue and/or glue tape.
- If you have drains, strip them twice daily and record the drainage in your drain log. See complete drain instructions.
- Shower daily with a mild soap. Pat area dry.
- No strenuous activity for the week after surgery. Walk a lot.
- Do not apply any ice or heating pads to the incisions/breasts.
- If you have any concerns, call the office to discuss during business hours.

FAT GRAFTING & LIPOSUCTION

- Some bruising and swelling is normal. You should expect only mild discomfort at the injection (fat grafting) sites, and moderate discomfort and bruising at the harvest (liposuction) sites.
- **After liposuction there will be bloody fluid that seeps from some incisions.** It is normal to have fluid drain from the liposuction port sites for several days after surgery. The fluid may appear "bloody" at first, and then eventually turn clear. You may want to sit on dark-colored towels or absorbent pads until this subsides.
- You will wear a compression garment to the harvest site(s) for a minimum of four weeks: day and night for the first two weeks, and during the daytime and when active for the next two to four weeks, depending on your healing.
- Shower daily with a mild soap. Pat area dry. You may remove your compression garments to shower.
- Avoid strenuous activity for the first week after surgery.
- Do not apply any ice or heating pads to the injection or harvest sites.
- If you have any concerns, call the office to discuss during business hours.

LONG-TERM RECOVERY NOTES

THE FIRST YEAR: Our staff is always available if you have questions or concerns. You will have 2-4 routine post-operative appointments in the first six to eight weeks after surgery, and 1-2 long-term follow-up appointments several months out from surgery. Call us with any questions or concerns outside of these appointments.

Two weeks or more after surgery, silicone ointment or silicone tape may be recommended to help scars heal well. Discuss this with your doctor.

In the 12 months following surgery, you should apply a waterproof sunscreen with at least an SPF 30 at all times on the surgically treated area and the suture line. Use sunscreen even where your incision is covered by your swimwear. Apply at least 30 minutes before any prolonged sun exposure is expected. Protective clothing is highly recommended. New scars are very sensitive to sunlight and, if unprotected, may result in permanent changes in scar color to either a darker, lighter or discolored shade.

IRREGULAR SCARS: Rarely, a scar will take on a nodular, bumpy, raised or thickened appearance; the scar formation may be hypertrophic or keloid. If this should happen, please contact our office. There are medications that may be effective to flatten and improve the scar as it is forming.

BROAD BAND LIGHT FOR SCARS: Broad Band Light (BBL) is a light therapy option for most skin types. After fully healed, we can use BBL to treat your scars. The treatment, similar to a photofacial, can help reduce residual redness and hyperpigmentation along your scars. One treatment is complimentary, with further treatments performed for a minimal cost. Schedule a complimentary consultation in our medspa to see if BBL is appropriate for you.



DEEP VEIN THROMBOSIS & PULMONARY EMBOLISM

DVT: WHAT IS IT? DVT stands for deep vein thrombosis. This is a serious condition, and it can cause injury or death. A venous thrombus is a clump of blood cells, platelets, and fibrin (clot) which attaches to the inside walls of veins, can grow in size, and break off to travel downstream from the clot. If the clot stays localized, it can cause swelling and vein irritation. If part of it breaks off, then it can cause blockage downstream, may travel to the lungs (pulmonary embolus) and result in serious illness or even death. In some circumstances, deep vein thrombosis may also contribute to other serious medical problems, such as heart attack and stroke. Please let us know if you or a member of your family has ever had a blood clot.

RISK FACTORS WITH DVT: Patients taking certain medications or those with specific medical conditions are at a higher risk for DVT (see below). Medications that can alter normal blood clotting mechanisms, affect blood flow or can cause blood-vessel damage can lead to DVT. Physical immobility for an extended amount of time, such as after surgery or in airplanes, can increase your risk of DVT as well.

CONDITIONS ASSOCIATED WITH INCREASED RISK OF DVT:

Cancer	Recent surgery
Increasing age	Trauma
Smoking	Personal/family history of DVT
Heart Disease	Blood clotting disorder
Obesity	Use of oral contraceptive
Pregnancy	Use of hormone therapy

SYMPTOMS OF DVT: Symptoms may not occur every time when a DVT is formed. If they do occur, the symptoms may include swelling, pain and redness in legs and calves. Difficulty breathing and severe chest pain indicates that the blood clot has moved to the lungs. If you are concerned, please call our office immediately.

REDUCING YOUR RISK OF DEEP VEIN THROMBOSIS

When DVT develops, it is often undiagnosed; therefore, the definite methods to prevent it are still uncertain. In order to reduce the risk of developing DVT, patients are advised to follow these guidelines:

- ❧ Wear elastic compression stockings after surgery. Closed-toe TED anti-embolism stockings are recommended and can be purchased at most pharmacies or online.
- ❧ Try to walk about 100 feet every three hours with help. Also, when you can, try to sit in a chair and attempt leg exercises as recommended below.
- ❧ Alter your position by stretching your legs and feet. Every hour, do leg exercises such as ankle circles, knee lifts, lifting your knee to your chest, and pumping your feet.
- ❧ Avoid crossing your legs at the knee or ankle.
- ❧ Loose-fitting clothing is recommended.
- ❧ Keep yourself hydrated. Drink non-diuretic fluids, such as water, milk and juice. Minimize your caffeine and alcohol intake.
- ❧ We may send you home with an SCD (sequential compression device) for your legs to reduce DVT risk. Wear while sitting and in bed.
- ❧ For certain procedures, we may prescribe a blood thinner to be taken for a short period of time after surgery.

POST-SURGICAL EXERCISES

Exercises should not be done if they are causing pain in your calves, or if you are advised not to continue with your exercises by your surgeon.

Pumping Your Feet: Keeping your heels on the ground, point toes and foot as high as you can. Hold for 30 seconds and then put both feet flat on the floor again. Lift your heels off of the floor, while keeping the balls of your feet on the floor, and hold for 30 seconds.

Ankle Circles: Holding your foot in the air, draw a circle with your toes for 30 seconds. Change direction and continue for another 30 seconds. Put your foot down and then repeat with the other foot. You can also “draw the alphabet” with each foot.

Knee Lifts: Sit down and march your legs, contracting each thigh muscle. Make sure you stay seated during this exercise. Continue for 30 seconds.

Lifting Your Knee To Your Chest: Raise your left knee and bring it to your chest region. Hold this position for 10–15 seconds. Return your leg to the floor in a slow motion. Alternate legs 10 times.

TRAVEL-RELATED DEEP VEIN THROMBOSIS

There is increasing evidence that immobilization in a car/airline seat for long trips puts people at risk for deep vein thrombosis (DVT). There are a number of ways to reduce the risk of travel-related DVT.

- Always drink plenty of water to avoid dehydration.
- Do not drink alcohol before or during the travel, as this can compound dehydration.
- Try to keep your thighs clear of the edge of your seat. Use foot rests as far as possible.
- Take a brisk walk for half an hour before travel.
- If being driven, stop every hour and walk for about five minutes.
- If on a flight, regularly go for a short walk to the restroom to keep your legs moving.
- Try a few simple exercises to keep your legs moving: rotating your ankles, alternating pointing your heel and toe, and lifting your knees while seated for a short period every hour.
- Try to tense your leg muscles as regularly as possible throughout travel.
- Wear elastic compression stockings especially designed to reduce the risk of DVT. These are readily available at most pharmacies.
- We may recommend for you to take a low dose of aspirin (81 mg daily) starting the day before travel and continuing until three days after finishing travel. Please note that evidence for effectiveness of Aspirin in DVT prevention is weak. Prescription Eliquis, movement, and SCD (sequential compression device) use is much more effective.
- Please let us know if you have any travel planned within 6 weeks after surgery.

WHAT TO DO IF YOU HAVE AN EMERGENCY

Some discomfort is expected following your surgery. Call our office immediately if you have any of the following:

- Temperature greater than 101°F
- Significant or asymmetrical swelling (for example, one breast is much more swollen than the other)
- A large amount of fluid drains from incisions
- Asymmetric nipple color change after breast surgery (one nipple dark purple while the other is pink)
- There will be some discomfort after surgery. Call if the prescribed pain medication is not adequate to assist with improved comfort during recovery.

Seek immediate medical attention if you experience shortness of breath, chest pain, or unusual heartbeats.

OFFICE PHONE: (512) 815-0123

AFTER-HOURS EMERGENCIES: (512) 323-5465





Austin Plastic & Reconstructive Surgery
(512) 815-0123
austinprs.com