Preparing for Breast Reconstructive Surgery

Davies Campus

This document is dedicated to Breast Cancer Survivors
Introduction and Acknowledgements

This handout was given to you by your Plastic Surgeon to help prepare you for breast reconstruction surgery. It is designed so that you can anticipate what to expect throughout your hospitalization process. There are various resources available to help prepare and guide you before, during, and after surgery, and during your recovery at home.

The following individuals and institutions created and/or contributed to this publication:

♦ Annemarie Schindler, RN
♦ Darlene Hiatt, RN, BSN
♦ Gabriel Kind, MD
♦ Karen Horton, MD, MSc, FRCS
♦ Leanne Deegenaars, RN, MSN
♦ Marie Uy Goh, PA-C
♦ Michele Foster, RN, ANCC
♦ Tina Kuruvilla, RN, BSc, MSN
♦ Vancouver Island Health Authority, Victoria Breast Health Centre

Produced by the Center for Patient and Community Education in association with the staff and physicians at California Pacific Medical Center.
Line drawings: Sarah Ho
Photos of surgeons: courtesy of Dr. Karen Horton, MD, MSc, FRCSC; Dr. Gabriel Kind, MD

© 2010 California Pacific Medical Center

Note: This information is not meant to replace any information or personal medical advice which you get directly from your doctor(s). If you have any questions about this information, such as the risks or benefits of the treatment listed, please ask your doctor(s).
Contents

Introduction and Acknowledgements............................................. 2
Getting Started ............................................................................. 5
Preparing for Surgery .................................................................. 6
The Day Before & Day of Surgery .............................................. 8
Your Surgery ................................................................................ 10
Sentinel Lymph Node Biopsy .................................................. 11
After Surgery ................................................................................ 12
   Post Anesthesia Care Unit (PACU) ........................................ 12
   Flap Reconstruction – ICU or TICU ........................................ 13
   Implant Reconstruction – Third Floor, Med/Surg Unit ............ 15
   Pain Control – Implants and Flap Reconstruction ................. 15
   Postoperative Day 1 ............................................................... 16
   Subsequent Postoperative Days ............................................ 16
   Getting Ready to Go Home .................................................. 17
Caring for Yourself at Home ....................................................... 18
Postoperative Exercises ............................................................. 19
Pathology Results ....................................................................... 19
Drains .......................................................................................... 20
When to Call Your Surgeon ....................................................... 21
The Road to Recovery ............................................................... 22
Preparing For Breast Reconstruction Surgery

Resuming Normal Activities .......................................................... 22
Going Back to Work ........................................................................ 22
Sexual Activity .............................................................................. 23

Follow-up Treatments ................................................................... 24
Self Breast Examination & Mammograms ..................................... 24
Further Cancer Therapy ............................................................... 24
Nipple and Areola Reconstruction .............................................. 24

Resources ..................................................................................... 26

Appendix A: Postoperative Exercises ......................................... 28
Appendix B: Caring for JP Drains ................................................. 30
Appendix C: Contact Information & Map .................................... 33
Getting Started

Once you and your Surgeon decide which type of surgery is best for you, the Surgeon’s office will contact you regarding the date and time of your surgery. It is then your responsibility to contact your primary care physician for a preoperative (“pre-op”) physical examination within one month of your surgery date and as late as one week prior.

A pre-admission Registered Nurse will contact you one to two weeks prior to your surgery date to obtain all the necessary medical history. You can also expect a phone call from the CPMC Breast Health Center to answer any pending questions you may have. There will be many resources available to you throughout your hospital stay.

For implant-based breast reconstructions, you will usually stay in the hospital for two nights. For microsurgery reconstructions (either upper thigh/groin incision or lower abdominal incision), the usual length of stay is between five and seven nights. Discharge time is generally 11 a.m., although the hospital will accommodate your travel plans as best as possible.

If your surgery is planned in advance, plan to stop smoking at least six weeks before your surgery date. Smoking can increase your risk of serious complications and lead to flap failure and/or donor site wound healing problems.
Preparing for Surgery

Your activity level will be restricted for the first 4-6 weeks. This will include no heavy lifting (more than 5 pounds), driving, or strenuous housework. After flap reconstruction, you will also be advised to avoid using the arm on the side(s) of surgery for pushing, pulling and lifting for up to a month. It may be helpful to arrange for assistance during this time.

Some recommendations include:

- If you live alone, arranging rides for follow up care and necessary household errands
- Taking care of house cleaning, bills and other domestic responsibilities in advance of surgery
- Preparing and freezing meals ahead of time
- Having a recliner or comfortable chair to help with comfort and mobility
- Having pillows to put beneath your knees while sleeping after surgery
- Preparing a ride to and from the hospital

Feel free to visit the CPMC Davies Campus any time prior to your surgery and ask one of the Nurses or the Admissions staff for a tour!

**Contact your Surgeon’s office if you are not feeling well, or have a cough, cold or fever the week prior to your surgery date.**

Do not shave under your arms or bikini area for at least two days prior to surgery. This will avoid creating small nicks in the skin that can increase the risk of surgical site infection.
Preparing For Breast Reconstruction Surgery

What to bring with you to the hospital:

- Robe
- Slippers
- Small bag with personal hygiene items (toothbrush, toothpaste and brush/comb, mirror)
- This handout
- Glasses/contact lenses
- Books or magazines for reading
- Clothing for discharge (comfortable front closure top, pants or skirt with elastic/loose waistband, slip on shoes)
- Other items to personalize your hospital room and make your stay as inviting and comfortable as possible (favorite music, photographs, pillow cases, etc.)

What NOT to bring:

- Jewelry
- Valuables
- Credit cards
- Money
- Wallet/purse

Personal Checklist:

- this handout
- ________________________________
- ________________________________
- ________________________________
- ________________________________
- ________________________________
- ________________________________
- ________________________________
- ________________________________
- ________________________________
The Day Before & Day of Surgery

♦ NO solid food after midnight on the day before your surgery.
♦ You may have clear liquids up to eight hours prior to your surgery time. Clear fluids include:
  • Water
  • Jell-O®
  • Clear carbonated drinks
  • Clear tea
  • Black coffee
  • Popsicles
  • Apple juice
♦ Do not chew gum or suck on hard candies during the 8-hour period before surgery. These stimulate gastric juices from your stomach.
♦ Do not consume alcoholic beverages the night before.
♦ Take all of your regular prescribed medications with no more than a sip of water (antidepressants, blood pressure medications, anti-anxiety medications, thyroid medication, etc.) unless otherwise instructed by your Surgeon.

Unless otherwise instructed by your Surgeon, do NOT take:

♦ Diuretics, oral hypoglycemics, or insulin on the day of surgery.
♦ Anticoagulants (e.g. Coumadin®, Plavix®) for five to seven days before surgery.
♦ Vitamins and herbal remedies, especially vitamin E, Ginkgo biloba, Fish oil, Saw palmetto or Ginseng for two weeks before surgery
♦ Anti-inflammatory medications (e.g. Advil®, ibuprofen, Motrin®, naproxen) for two weeks before surgery.
♦ Medications containing ASA (acetylsalicylic acid) for 10-14 days before surgery.

Tylenol® is safe to take for minor pains or headaches, even on the morning of surgery, with a sip of water.

Ativan® (lorazepam) is appropriate to be taken for anxiety if prescribed by your Surgeon/Doctor.
Admission to the Hospital

When you arrive at CPMC’s Davies Campus, check in with the Admissions Office on the lobby level. You will be escorted by a friendly Admissions Staff member to the Ambulatory Surgery/Care Unit (ACU) on the fourth floor. Here, you will change into a hospital gown, put your personal belongings into safekeeping with Security, and settle into your preoperative room.

You will shortly be greeted by an ACU Nurse who will:

♦ take your vital signs (heart rate, blood pressure)
♦ review your pre-admission paperwork and the procedure you are about to have done
♦ obtain your signature on the consent form
♦ insert an intravenous (IV) line
♦ place TED compression stockings on your legs to prevent blood clots in your legs during and after surgery.

Your belongings will remain in the ACU area until your surgery is finished. Following your operation, you will be brought to your postoperative hospital room on the third or fourth floor.

Once your postoperative room number is determined, your belongings will also be brought to your room. Please do not bring any valuables to the hospital. If you feel you must, we encourage you to lock them up with security during your admission, or better yet, leave them with a family member who can give them personally back to you after surgery.
Your Surgery

Just prior to surgery, you may be asked to empty your bladder one last time, and remove any glasses, contacts or dentures you may be wearing. Once you are ready, you will be transported to the Operating Room (O.R.) holding area. Family and friends may follow you down to the O.R. and will be escorted to the surgery waiting room on the A-level floor.

In the pre-op holding area, you will meet your Anesthesiologist, see your Surgeon(s), and meet your Operative Nurse. They will review your procedure, check your consent form, and preoperative marking may be made on your skin by your Surgeon. This is also an opportunity to ask any last minute questions you may still have for your surgical team. You will then be taken by gurney to the operating room.

Your surgery may be anywhere from four to eight hours.

During the surgical period, a staff member will provide an update to those waiting in the surgical waiting room on the progress of your surgery. Your Surgeon will talk to your family and friends in person once your surgery is complete, and/or will call them by phone when you are in the Recovery Room (PACU).
Preparing For Breast Reconstruction Surgery

Sentinel Lymph Node Biopsy

This intraoperative test is sometimes used to provide information regarding the first lymph node in the chain of nodes that drains the breast in the axilla (armpit area). Your Breast Surgeon will make the decision whether this test is appropriate for you and will arrange for the Pathologist to look at the results during surgery. Based on these results, additional lymph nodes may be sampled from the axilla at the time of surgery.

If your lymph node sampling does not involve sentinel node analysis, your final Pathology results will be available around five days after surgery. Your Breast Surgeon will discuss the results and will explain them to you in detail.
After Surgery

Post Anesthesia Care Unit (PACU)

Immediately after surgery, you will be moved to the PACU (Recovery Room) for about an hour. As you wake up from anesthesia, you will be closely monitored with frequent vital signs and visual breast examinations. During this initial recovery phase, you will be kept warm, be given pain medication for adequate pain control, medication for nausea if needed, and anti-anxiety medication.

You will wake up with supplemental oxygen in your nose, and a Foley catheter, which is a tube that sits in your bladder and drains your urine for you while you are sleeping and during your recovery. You will not be allowed to drink any fluids or eat while in PACU, as you will still be very drowsy. Your family will not be allowed to visit while you are in Recovery, but will be given updates on your status by your Surgeon and the PACU Nurses.

If you have had a flap reconstruction, you can expect to hear a continuous internal venous implantable Doppler signal that the Nurse will check frequently. This will sound similar to ocean waves. In addition, you may have external pencil arterial Doppler checks, sounding like a heart beat. The Doppler signals monitor the blood flow in and out of your flap. These circulation checks will be continued by the Nurses and Doctors throughout your hospital stay.

Once you are more alert and awake, you will be transferred up to your hospital floor. You will most likely have a private room for the remainder of your hospital stay.

If you have had a flap reconstruction, you will go to the Intensive Care Unit or TICU (step-down unit) on the fourth floor for close monitoring of the flap. This includes visual examinations (looking at the flap), tactile monitoring (feeling your flap) and audible signals (listening to the Doppler signals) every hour.
If you have had an implant for reconstruction, you will go to the third floor Med/Surg Unit for your recovery for two nights. The Nurses here will also assess your breast skin by looking and touching, but Doppler monitoring and hourly checks are not needed. You may have a warming pad on your chest to encourage circulation to your breast skin.

Flap Reconstruction – ICU or TICU

Once you arrive in the ICU or TICU on the fourth floor, you will be connected to a cardiac monitor, automatic blood pressure cuff, and continuous oxygen monitoring. A heating pad will be applied to your chest to keep your breast reconstruction warm and to help promote blood circulation.

Depending on your surgery, you will have either a lower abdominal incision (DIEP flap) or upper thigh/groin incisions (TUG flap) with suction drains coming from this area, known as your “donor site.” You will also have drains coming from your breast reconstruction. For more information on drains, see Appendix B.

Depending on your Surgeon, you may also have a “pain pump” (local anesthetic catheter) from your abdominal incision to minimize the pain. You will also wear compression leg stockings (“TEDS”) and have sequential compression devices (“SCDs”) on your legs to promote circulation and prevent blood clot formation.

If you have flap reconstruction, you can expect to have your vital signs taken every one to two hours on the first night after surgery. In addition, your breast flap will be checked every hour for color and warmth. During these flap checks, the Nurse will listen to the Doppler signal. You can expect to be frequently interrupted through the first night! The number one priority of your entire team (Surgeons and Nursing team) is to have the best surgical outcomes.

You can expect to be gently turned by the Nurse for a slight tilt from side to side every couple of hours. The purpose of turning and changing position is to promote lung expansion and prevent any skin breakdown from lying in one position too long. During the first night you will also be
encouraged to begin your post-op breathing exercises and leg exercises (see Appendix A).

It is important for the first 24 hours after Microsurgery (a flap) that you have nothing to eat or drink (this is known as “NPO”). This is to ensure that if there is a concern with the circulation of your flap on the first night, you can return to surgery immediately without a period of fasting before. This is known as a “take-back” to the operating room, which occurs rarely.

You will be hydrated with IV fluids for the first few days until the Nurses feel you are taking enough fluids on your own. Cool swabs to wet your mouth and lips will be provided during the first night of fasting after surgery.

You will be allowed to eat and drink the morning after surgery if there are no concerns with your flap circulation. Coffee and tea are allowed; you may wish to start with clear fluids and advance your diet as you become hungrier.

You will also be on bed rest for the first 24 hours to five days after flap surgery. Your surgeon will give you specific instructions. You will eventually be allowed to sit up in bed and to control the bed position yourself. Nurses will be managing your position for the first night.

One of the complications of postoperative anesthesia is nausea. Please be assured if you are feeling nauseated, appropriate medications will be ordered by your Surgeon and administered by your Nurse.

In the ICU/TICU, the Nurses work 12-hours shifts. At the change of shift, the oncoming Nurse and off-going Nurse will both examine your breast together to ensure both Nurses are in agreement with the appearance and circulation of the flap.

The ICU/TICU is flexible regarding visiting hours. However, family cannot stay the night in the ICU. Prior arrangements should be made for lodging for family members. Once transferred to the TICU, arrangements can be made for one person to spend the night with you, if desired.
Preparing For Breast Reconstruction Surgery

Implant Reconstruction – Third Floor, Med/Surg Unit

If you have had an implant for reconstruction, many of the details above will also apply on the third floor Med/Surg Unit. You will be given supplemental oxygen, anti-nausea medication and will likely have a Foley catheter the first night.

However, you will not be attached to a cardiac monitor, you will not have hourly breast checks and you will be allowed to eat and drink the first night of surgery. You will also be allowed to get out of bed, and sit in the chair if you like. The bladder catheter can be removed at your request the first night if you wish to use the bathroom with the Nurses’ help.

Pain Control – Implants and Flap Reconstruction

It is very important to have adequate pain control for your recovery. You will be given a Patient Controlled Analgesia (PCA) button after surgery, usually with a narcotic pain medication (morphine, Demerol® or Dilaudid®). This machine will allow you to medicate yourself by pushing a button when you experience pain. There will be specific settings on the machine regarding amounts of medication and how often you can push the button to receive the medication, which can be adjusted as needed.

Please do not be concerned with using too much pain medication, since you will be closely monitored by your Nurse. If you do not feel you are having adequate pain control, please let your Nurse know so she can call the doctor to change the type of medication or adjust the dosage.

The PCA pain medication has a quick onset and is short acting, so we encourage you to stay on top of your pain when you feel you have pain. When you begin to start taking liquids and food, you will be able to take oral pain medication by mouth, which will last longer. There is a delayed onset of about 30 minutes with oral pain medications, but they last between 3 and 4 hours. Examples are Percocet®, Vicodin®, and Tylenol® with codeine. These are usually the type of pain medications you will be prescribed when you go home.
Postoperative Day 1

If your Surgeon feels you are ready, you will advance with your diet. You should start with clear fluids and avoid very spicy or heavy foods at first. Your family can also bring in your favorite foods for you. The hospital kitchen takes special requests for specific dietary restrictions, and will do their best to accommodate your diet.

Following a flap, you will still be on bed rest but will be encouraged to move your legs around in bed and to flex your calf muscles each hour. You will also be instructed on the use of an incentive spirometer (ICS) machine to help exercise your lungs while you are in bed.

Your bladder catheter will remain in place while you are in bed. As many of the medications you will be given will make you constipated, you will not likely have a bowel movement for the first three to five days after surgery. Do not worry about this! You will be given stool softeners and a laxative as needed if you have not had a bowel movement by Postoperative Day 5.

Depending on your progress, your Surgeon may transfer you from the ICU to the TICU on the fourth floor. This is a unit that is between the ICU and the Medical-Surgical unit on the third floor Med/Surg Unit. As you become stronger, you will require less intensive care nursing and be transferred one step closer to going home. This is a positive step in your road to recovery!

Subsequent Postoperative Days

Depending on how you are feeling and your Surgeon's instructions, your Nurses will help you get out of bed and in to a chair. You may feel some discomfort during this process due to the incision sites. The Nurse will encourage you to use your pain medication. This is all done to promote healing and your recovery.

When your Surgeon thinks you are ready, you will be transferred to the Medical-Surgical third floor (Med-Surg Unit). With each passing day, you will be encouraged to get out of bed more often and walk in the hallways, advance
your diet towards a regular diet, and wean off IV fluids and IV pain medications, all in your preparation for going home.

As your diet and activity increase, you will also be expected to have a bowel movement prior to going home. Depending on your activity tolerance, your bladder catheter will be removed when your Surgeon feels you are able to get up and use the bathroom. Depending on how you are feeling, you may also be allowed to take a shower with a female attendant who can help you before you go home.

If you had an implant for reconstruction, you will be advised to avoid showering until the drain(s) are removed to avoid infection of the implant. You will be allowed to take a sponge bath, shower the lower half of your body only, and wash your hair in the sink with help.

**Getting Ready to Go Home**

In preparation for leaving the hospital, your Surgeon will give you a prescription for pain medications. You may have already received your discharge medication prescriptions during your preoperative office visit with your Surgeon.

Occasionally, you may discover that you prefer a different type of pain medication than the one you were prescribed preoperatively. Be sure to ask your Surgeon for a new prescription if necessary, or ask for the medication to be called in to your pharmacy so your family members can pick it up in advance of you leaving the hospital.

Your Nurses will instruct you on how to care for your incisions and to empty and record the fluid coming from your drains (see Appendix B). Any drains in your body at the time of discharge will most likely be removed during an upcoming follow-up appointment with your Surgeon.

If you have had a flap reconstruction, you may continue to shower at home with assistance. Your surgeon will give you further instructions about restrictions before you go home. You will be advised to schedule a follow-up appointment with your Surgeon seven to ten days following discharge.
The text content is already in a natural format. No further processing is needed.
Postoperative Exercises

Postoperative complications related to anesthesia, decreased level of activity, and some postoperative medications can be avoided by practicing the following exercises. Due to your decreased physical activity, shallow respirations from medications and from anesthesia, you are at risk for the complication of atelectasis (at-uh-LEK-tuh-sis), a precursor to pneumonia.

Atelectasis occurs when the air sacs in your lungs begin to fill with mucous and other fluids, making the exchange of gases more difficult. An early sign of atelectasis while you are in the hospital is a low-grade fever. Your Nurses will instruct you on deep breathing and coughing, and to use the incentive spirometer device that you can also take home with you.

Another postoperative complication that can occur is deep vein thrombosis (DVT), or blood clots in the legs. Blood clots forming in the deep veins of the legs can break off and circulate through the body, lodging in the lungs and creating breathing difficulties. This is known as pulmonary embolism, or PE.

If you experience calf or leg swelling, redness, or tenderness, or chest pain, shortness of breath, or a pain that increases upon taking a deep breath, contact your Surgeon immediately. The treatment for a blood clot in the leg or the lungs is often hospitalization for a few days and blood thinners for up to 6 months. This is a very rare but serious complication - do not take any of the symptoms mentioned above lightly!

Pathology Results

Your Pathology results will be known approximately five days after surgery. Your Breast Surgeon will review these results with you.
Drains

About Drains
Suction drains are necessary to prevent fluid from building up around or under your incision site, and to decrease the risk of complications. You may have one to three drains near each incision site attached with a stitch. These drains will be emptied by your Nurse when they become about half full. The fluid in the drains will be a deep red color at first, which will then slowly become more "serous" or a clear light yellow as the days pass on. The amount of drainage will also decrease with each passing day.

Drain Removal
The drain will be removed by your Surgeon when the amount of drainage is less than approximately 20-30 milliliters in a 24-hour period, and the fluid is clear light yellow. This usually takes anywhere from 7 to 14 days. Do not worry - drain removal does not hurt! The small stitch used to hold the drain in place is cut, and the drain tube is gently removed. A dressing will be placed over the top, and can be removed the next day before your shower. The small hole in the skin through which the drain exited the body will close itself up in 24 hours.

Breast drains are typically removed before you go home following a flap, but most patients go home with abdominal or thigh drains. There is a chance that you could also be going home with breast drains if you have had implants placed or if your body is making a large amount of wound fluid that is bloody in color.

Drain Care at Home
Your Nurse will teach you how to care for and empty your drains prior to going home (see Appendix B). You will also be provided with dressings and a small specimen container for measuring your drainage output, in milliliters (mL) or cc's. Please record your drainage amounts on the drain log (Appendix B: JP Drain Log.)

Take this to your Surgeon so they can assess your drain output.
When to Call Your Surgeon

Contact your Surgeon immediately if you experience any of the following:

♦ Temperature above 101°F or 38.5°C.
♦ Shortness of breath, pain in your chest or sides or feeling "winded".
♦ If your drains fall out, are unable to hold suction, or if you are unable to unclog your drains.
♦ If drainage increases, is foul smelling or you notice a change in its consistency or color.
♦ Increased swelling, pain, bruising or tightness in the affected breast or underarm.
♦ Swollen leg(s) or tender and red calves.

If you are unable to reach your Surgeon within one hour, call your Primary Care Physician or go to the nearest Emergency Room.
The Road to Recovery

Resuming Normal Activities

Mastectomy and/or breast reconstruction is a major surgery, and time is needed to completely heal and recover before you can expect to return to your regular activities! You can usually resume normal activities about six weeks after your breast reconstruction surgery. Always check with your Surgeon before starting physical activities or exercises.

Going Back to Work

Most patients take at least six to eight weeks before returning to work. Some women take longer to recover; check with your employer and/or Human Resources Department about the time you can expect to take off to recover from surgery. As a breast cancer survivor, you have certain rights as a patient. Be sure to advocate for yourself and to let your workplace know what you are going through.

Normally you can return to work when:

♦ You are comfortable physically, mentally and emotionally to perform your expected job activities.
♦ You have the physical, mental and emotional stamina to complete a day’s work.

Check with your Surgeon before returning to work. Your Surgeon’s office can complete the necessary forms for your employer or disability benefits.
Sexual Activity

Ask your Surgeon regarding when you can safely resume sexual activity. Generally, women may resume sexual activity six to eight weeks after surgery or when they feel comfortable.

Intimacy is unique to every woman. Many women have different opinions for when they are ready to become intimate again. Some women have found that their partners go through a grieving process as well. You may want to communicate your feelings and fears to your partner to improve their understanding of the situation.

A common concern may be physical appearance or discomfort following surgery. Many partners are concerned with doing or saying the wrong thing.

During mastectomy surgery, the nerve supplying erotic sensation to the breast and nipple is removed. Therefore, pleasure you may have previously experienced from nipple stimulation may be affected permanently. On the other hand, breast reconstruction can enhance a woman’s feeling of completeness and attractiveness, providing greater enjoyment during sexual activity.
Follow-up Treatments

Self Breast Examination & Mammograms

Self-breast examination should be performed on both your reconstructed breast and natural breast on a monthly basis. Ask your Breast Surgeon or Oncologist when to start and how to perform this exam on your reconstructed breast.

Contact the CPMC Breast Health Center if you have never performed a self-breast examination

An annual mammogram of your natural breast is recommended, starting 6 months after any surgery to this breast. Check with your Breast Surgeon or Oncologist regarding the need for any imaging (CT scan, MRI) to your reconstructed breast.

Further Cancer Therapy

If further treatment is needed, contact your Oncologist to discuss the possibilities of radiation or chemotherapy, or a combination of both. Your Breast Surgeon will discuss your Pathology results with you and explain their significance.

If chemotherapy and/or radiation are recommended, this will usually start six weeks or more after your breast reconstruction. Your Oncologist will usually wait until your Surgeon gives permission to begin therapy.

Nipple and Areola Reconstruction

Nipple and areola complex (NAC) reconstruction are generally performed three to six months after breast reconstruction when the breast area has healed and has taken its final shape and position. NAC reconstruction is considered same-day, outpatient surgery under local or a short general anesthesia.

The nipple and areola complex reconstruction involves two components:

- nipple prominence
- areolar circle
Sometimes the nipple reconstruction is performed first, with the areola done at a later date; at other times, they are performed together.

Nipple reconstruction usually involves a local flap procedure where wings of tissue (skin and fat) from the breast reconstruction itself are rotated in place to create a nipple prominence. Some Surgeons also add some additional tissue inside the local flaps (soft or firm) to try to improve projection of the nipple reconstruction. After surgery, the nipple reconstruction is expected to shrink between 30% and 50%. The ideal nipple prominence matches a natural nipple at rest. It will not be able to become erect with stimulation or cold temperature.

The areola circle can be made using either a medical tattoo or a skin graft. Natural, flesh-colored medical tattoo pigments (ranging from tan, to pink, brownish, or black) are available and can be mixed together to very closely match a natural nipple and areola. The nipple prominence is also tattooed to match the other side. Tattooing can be done either in the operating room or in the office of your Surgeon under local anesthesia, and is usually done by the Plastic Surgeon.
Resources

There are many resources available through CPMC to help you before, during and after your surgery and hospital stay. Please take the time to explore the following to help you get familiar with all of the services that are available.

Cancer Care Navigation Services
www.cpmc.org/services/cancer/patient/ca_pt_nav.html
♦ Appointment Coordination
♦ Communication Assistance
♦ Patient Education
♦ Support Services Referrals
♦ Wayfinding
♦ Lodging and Transportation Needs

CPMC Breast Health Center
www.cpmc.org/services/women/breast/
♦ Diagnostic Services
♦ Breast Cancer Recovery Program
♦ Breast Health Education
♦ Support Groups
♦ Concierge Services for Women with Advanced Metastatic Cancer
♦ Telephone Matching Program
♦ Free Consultations
♦ Financial Disability Insurance Counseling
♦ Stress Reduction
♦ Care Coordination

Institute of Health & Healing
www.cpmc.org/services/ihh/
♦ Therapeutic Massage/Reiki
♦ Guided Imagery
♦ Chaplain/Spiritual Care
♦ Health Information Packet
♦ Holistic Nurse Consultation
♦ Nutrition Consultation
♦ Integrative Medicine Assessment
Accommodations
See Local Lodgings at www.cpmc.org/visiting/guide/lodging1.html for information about local accommodations.

Financial aid may be available. Contact Cancer Care Navigation Services for more information.

Your Surgeons

Please also see your Breast Surgeon and Plastic Surgeons’ practice websites for additional information, before-and-after photographs, preoperative and postoperative instructions, and other resources.
Appendix A: Postoperative Exercises

Perform the following exercises every hour when awake to prevent complications after surgery:

1. Deep Breathing and Coughing – repeat cycle 3 times each hour while awake

While awake in bed, it is important to practice taking deep breaths to improve lung expansion and decrease mucous collection. Coughing also plays a large role in expelling excess fluid and mucous from your lungs without being aware of it.

♦ If lying down, bend your knees and support your abdominal incision with a pillow or your hands.
♦ Take a deep breath through your nose, expanding your ribs.
♦ Hold the breath in for 3 seconds and then breathe out through your mouth until all the air is gone.
♦ After every third deep breath, take a breath in and cough sharply.
♦ Remove your secretions/mucous with a tissue as needed.

Although slightly painful, coughing will not damage your incisions.

2. Incentive Spirometer – repeat 10 times each hour while awake

You will be provided with an instrument called an incentive spirometer (ICS). The purpose of the ICS device is to encourage deep breathing and lung expansion. You will be instructed by your Nurses how to use this device effectively:

♦ Exhale completely and create a tight seal around the mouthpiece.
♦ Take a slow and steady deep breath in while the white object in the large center window of the ICS rises to your goal.
♦ Hold the white object as high as possible for 2-3 seconds before exhaling.
♦ Try to raise the white object higher and increase lung capacity each time.
♦ A second way to perform this activity is to watch the small window on the left side of the ICS with the yellow ball.
♦ While inhaling, raise the yellow ball and hold it in the category labeled “best” for 3 seconds before exhaling.

3. Leg Circulation – repeat 10 times each hour while awake

Due to decreased activity, bed rest, and pain medications, your body’s circulation may slow down and cause the complication of blood clots in your legs (DVT). Movement and exercises are encouraged while in bed to improve leg circulation.

♦ Pump feet up and down at the ankles.
♦ Straighten your leg and make circles with your feet in each direction.
♦ Stretch toes up and press knees down into the bed. Hold this position for three seconds and relax.
♦ Bend one knee and then straighten it. Alternate legs and repeat.
Appendix B: Caring for JP Drains

1. Empty

Figure 1: Wash your hands. Hold the bulb up with the tubes on top. Pull the drainage plug out.

2. Measure

Figure 2: Turn the bulb over. Empty the bulb into a container. Measure and record the drainage.

3. Reset

Figure 3: Push the plug back in while squeezing the bulb. Then release the bulb when the plug is back in. This resets the drain’s suction action.

4. Clean

- **DO NOT rinse the drainage bulb**
- Rinse the measuring container with hot water after each use
- Empty the drain when the bulb is half full
- Measure the amount of drainage each time.
  - Record it in the Drain Record table
  - Bring your Drain Record to your next surgeon’s appointment
- Drainage is often pink. It often becomes yellow or clear and the amount will decrease over time
- If you accidentally touch the plug with your hands or clothing, cleanse it with 70% isopropyl alcohol before reinserting it back into the bulb
- If the bulb falls off, reconnect it to the tubing. Use tape if needed.
  - Follow the steps to empty the drain
- If the drain suction action is not working, take it apart and rejoin it a number of times. If the drainage plug pops out, follow the steps to empty the drain. Tape the drainage plug across the top of the bulb.
4. Clean

It is normal for small clots, fluid or air bubbles to sit in the drainage tubing, but drains can become clogged with clots. When this happens, you will notice an abrupt decrease in drainage and fluid may leak out where the tube enters the body. To release clots:

- Support the drain site with one hand (Fig. 4)
- Gently squeeze the tubing between the fingers of the other hand. Start close to the drain site and gently move your fingers down the tubing, squeezing towards the bulb for about 6 inches (Fig. 5)
- Repeat 2-3 times

Contact your surgeon if the blockage does not clear.

Images and content of Appendix B: Caring for JP Drains is reprinted with the permission of the Vancouver Island Health Authority, Victoria Breast Health Centre.
# JP Drain Log

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>DRAIN #1</th>
<th>DRAIN #2</th>
<th>DRAIN #3</th>
<th>DRAIN #4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix C: Contact Information & Map

♦ Hotel Kabuki  
  www.jdvhotels.com/hotels/kabuki/  
  1625 Post Street, San Francisco, CA 94115  
  (415) 614-5423

♦ CPMC Breast Health Center  
  www.cpmc.org/services/women/breast/  
  (415) 600-6474

♦ Cancer Care Navigation Services  
  www.cpmc.org/services/cancer/patient/ca_pt_nav.html  
  1-866-975-COPE (2673)

♦ Institute of Health & Healing  
  www.cpmc.org/ihh/  
  Inpatient: (415) 600-3939;  
  Outpatient: (415)600-HEAL (4325)

CPMC Davies Campus Map and Parking

Parking vouchers may be obtained for a discounted daily parking rate of $10. Ask your Nurse for more details.