INTRODUCTION AND CANDIDACY

At UW Hospital and Clinics, our highly trained plastic and reconstructive surgeons offer a wide range of reconstructive options for women undergoing breast cancer surgery. We understand this is a major change in your body and work side-by-side with you to reach your goals and address your cosmetic concerns.

We hope this booklet will answer many of your questions about your options and what is available to you at UW Health.

Who is able to have breast reconstruction?

Many women who have had breast cancer surgery - such as lumpectomy/partial mastectomy or mastectomy - are eligible for breast reconstruction. Since each patient is unique, we will help customize your reconstruction based on your goals, concerns and previous therapy.

Considerations for breast reconstruction:

- Your medical condition
- Emotional health
- Activity level
- Breast size and shape

When should I talk to my doctor about breast reconstruction?

It is a good idea to start talking about your reconstruction options with your breast oncology surgeon before your breast cancer surgery. Then, when you consult with a plastic surgeon, he or she can work with you to select the best option available.

IMMEDIATE VS. DELAYED RECONSTRUCTION

Breast reconstruction can be done when a breast is removed or after all cancer treatments are complete. Those who are able to have immediate reconstruction (surgery done at the same time as breast cancer surgery) are women:

- Whose cancer may not need radiation therapy
- Who do not currently have a diagnosis of cancer and are choosing to remove their breasts due to a genetic mutation, strong family history of breast cancer, and/or precancerous changes in the breast

Other women might be asked to wait for breast reconstruction surgery depending on their:

- Overall health
- Stage of the breast cancer
- Amount of skin tissue left for reconstruction

We understand that breast reconstruction is your choice. And part of that choice involves not only how, but when you will have breast reconstruction.

Immediate Breast Reconstruction

You may choose to have immediate breast reconstruction at the time of breast cancer surgery. Once your breast oncology surgeon or general surgeon completes your breast cancer surgery, your plastic surgeon can begin reconstruction during the same operation.

Advantages to immediate breast reconstruction:

- Emotional well-being
- One operation which means only one recovery period

Disadvantages to consider include:

- Longer surgical time
- Longer recovery time
Delayed Breast Reconstruction
You may choose to delay breast reconstruction for personal or medical reasons. Delayed reconstruction might be the choice for patients who:

- Will have radiation and/or chemotherapy
- Wish to have reconstruction performed at a later date

For patients who have radiation, we often recommend delayed reconstruction due to changes in the cells of the skin that can alter the healing process after surgery. Once radiation is complete, your reconstruction options depend on your body type and previous therapies.

Advantages to delayed breast reconstruction include:
- More time to consider options
- Complete radiation before surgery

Talking With a Plastic Surgeon
Your plastic surgeon will provide you with your options based on your:
- Body type
- Level of physical activity
- Personal preference
- Medical history
- Personal or medical concerns with breast implants
- Post-surgery treatment plan including chemotherapy and/or radiation treatment

What Does Breast Reconstruction Involve?
Breast reconstruction surgeons usually use one of two common procedures or a combination of both: (1) implant reconstruction (alloplastic reconstruction) using a tissue expander or (2) flap reconstruction (autologous reconstruction or using your own tissue).

Implant reconstruction is typically done in two stages. First, the plastic surgeon places a tissue expander under the skin and chest muscle. After a few weeks to allow for healing, the expander is slowly filled with saline (salt water) during office visits that take place over the next several weeks to months. After the skin and muscle have stretched enough, the expander is removed and a second operation is done to place a permanent implant. In very rare cases, a permanent implant can be placed at the time of breast removal. This option, if available, will be discussed with you by your plastic surgeon.

“Nine months ago, I was struggling with a recurrence of ductal breast cancer. Now I’m attending boot camp and feeling better than ever.”

– Kim, a DIEP flap reconstruction patient

During the flap reconstruction procedure, fat and/or muscle tissue is taken from your back or stomach area and placed on the front of the chest wall in the shape of a breast. This tissue could be enough to rebuild a breast, or a breast implant may be added if necessary.
BREAST RECONSTRUCTION PROCEDURES

Deep Inferior Epigastric Perforator (DIEP) Flap Reconstruction

A Deep Inferior Epigastric Perforator (DIEP) flap procedure uses fat and skin from the lower stomach area to rebuild the look of a natural breast. The DIEP flap procedure saves the stomach muscles. With this, patients might have less pain after surgery and enjoy a faster recovery as well as experience little to no loss of stomach strength.

The fat and skin from the stomach area are used to create a breast, and the blood vessels are attached using microsurgical techniques to provide blood supply to the fat once it is moved onto the chest. The breast incision is circular or oval, and the skin inside the scar was once on your abdomen.

The stomach area scar will run from the hip bone, down near the pubic bone and up to the other hip bone and is frequently low enough to be covered by undergarments. There will also be a small scar around the belly button.

Advantages to DIEP:

- Natural appearance and feel
- Fewer problems in long-term after reconstruction is complete
- Adjusts with patient’s weight gain and loss
- Very effective in patients who’ve had radiation
- Helps shape stomach area
- Doesn’t harm stomach muscles

Disadvantages to DIEP:

- Potential donor site complications
- Longest surgery time
- Longer hospital stay
- Breast size limited by amount of donor site tissue
- Scars at donor site

Transverse Rectus Abdominus Myocutaneous (TRAM) Flap Reconstruction

A Transverse Rectus Abdominus Myocutaneous (TRAM) flap uses tissue from the lower abdomen/belly to rebuild the look of a natural breast.

The stomach muscles from one or both sides of the abdomen, along with the overlying fat and skin, are taken from the lower abdomen and moved to the chest to create a breast.

The breast incision is circular or oval. The stomach area scar will run from hip bone to hip bone—this scar may be low enough to be covered by undergarments—and there will also be a small scar around the belly button. A small piece of mesh is frequently inserted to strengthen the abdominal wall.
Advantages to TRAM:
- Natural appearance and feel
- Fewer problems in long-term after reconstruction is complete
- Adjusts with patient’s weight gain and loss
- Very effective in patients who’ve had radiation
- Can help shape the stomach

Disadvantages to TRAM:
- Potential donor (fat and muscle from the belly) site complications
- Longer surgery
- Longer hospital stay
- Breast size limited by amount of donor site tissue
- Scars at donor site
- Potential weakness in stomach area muscles

Latissimus Dorsi Flap Reconstruction

A Latissimus Dorsi Flap procedure uses tissue from the back – skin, muscle and fat - to rebuild a natural looking breast after breast cancer surgery.

This type of flap reconstruction is done along with a permanent implant. The implant helps to add more volume to the back tissue to create a natural looking breast. Some patients may require tissue expansion prior to placement of the permanent implant. In this type of reconstruction, tissue expansion makes sure there will be enough tissue to complete the flap.

Breast Reconstruction with Implants

The most common type of breast reconstruction with implants involves two stages. During two-stage breast reconstruction, the surgeon places a device called an expander under the chest muscle. This can be done immediately at the time of breast cancer surgery, or once active treatment for breast cancer is complete (delayed reconstruction).
The expander is filled with saline over time to stretch the skin and muscle and create a space for the implant. Patients should expect to return to the clinic every one to two weeks during the expansion process, at which time a nurse will use a tiny port beneath the skin to fill the expander. Depending on breast size, the expansion process can take several months. Once the expansion process is complete, the patient will return for a second surgery—generally four to six months later—to remove the expander and put in a permanent implant.

In a very select group of patients the implant may be placed at the time of the breast removal. This is very patient specific, so please discuss with your plastic surgeon if you are a candidate for this option.

Silicone gel and saline breast implants are both FDA approved. Please talk with your doctor to decide which implant is right for you.

**Advantages:**
- Shorter surgery
- Shorter recovery
- Shorter hospital stay
- Provides more choices on size of breast in smaller patients

**Disadvantages:**
- Possibility of rupture over time
- Scar formation around the implant over time
- Difficulty in matching other breast
- Implant infection can result in loss of reconstruction

**Acellular Dermal Matrix (e.g., AlloDerm)**
In some cases your surgeon may suggest Acellular Dermal Matrix (e.g., AlloDerm) to provide more internal support and coverage of the breast expander and/or implant. AlloDerm is FDA approved for breast reconstruction, is safe and is widely used when appropriate and indicated. Your plastic surgeon will discuss with you the specific benefits and risks of Acellular Dermal Matrix and whether or not they will use it in your breast reconstruction surgery.

**SECONDARY PROCEDURES**

**Nipple Reconstruction**

As a final step, some patients choose nipple reconstruction. This can begin once the new breast has healed, usually several months after reconstruction. A flap of skin is raised on the breast and arranged to create the look of the nipple bud. Nipple reconstruction is done as an outpatient procedure and takes up to one hour.

**Tattooing**

Tattooing can be done as an alternative to nipple reconstruction surgery, or it can be done to color the area around the nipple (the areola).

**Revision Procedures**

Revision surgery may be performed on the other breast to achieve symmetry with the reconstructed breast. This can be done by breast lift, augmentation or reduction.
BREAST RECONSTRUCTION SURGERY FREQUENTLY ASKED QUESTIONS

How real do reconstructed breasts look and feel?
A reconstructed breast can feel firmer and look rounder or flatter than the natural breast. It might not have the same shape as your breast before breast cancer surgery or exactly match your opposite breast. In some cases, the nipple and areola can be preserved. In women who don’t have cancer, it is more frequently possible to save the nipple. You may lose feeling in the nipple and chest wall skin as well, but this depends on procedure.

What should I expect immediately after breast reconstruction?
You could have soreness and be tired for several months after breast reconstruction. You should be up and walking within two days after surgery but may require four to eight weeks to return to full activity following a flap procedure. Recovery for implant reconstruction is usually shorter than for flap reconstruction, and you should return to full functioning in two to four weeks.

Will I have visible scarring?
You will have visible scarring, but where depends on the procedure. Scarring will fade over time (between one and two years), but will never go away entirely.

Is there a need for additional surgery after breast reconstruction?
Your breast reconstruction process might require additional surgery, such as nipple reconstruction or surgery to the other breast to make them look the same. This depends on what type of procedure you and your doctor agree is best for you.

Will I be on pain medicines after breast reconstruction surgery?
Yes. We will work with you to ease any pain. Your pain medication can be taken every four to six hours. Taking it on a schedule will help make you more comfortable. Your doctor may also prescribe muscle relaxants as well to help with the pain and discomfort after breast reconstruction.

Will I have drains after breast reconstruction surgery?
After surgery, there will be drains near your incisions to collect blood and other fluids. They will remain in place for up to six weeks depending on your procedure. While you are in the hospital, our nurses will help you and your family learn how to care for them.

May I bathe or shower after breast reconstruction surgery?
Once home, you can shower daily. When showering, it is helpful to drape a hand towel around your neck and safety pin your drains to either end. This will keep them from pulling or falling. If you don’t want to shower every day, you will need to wash the incisions and drain sites once a day with soap and water. Please do not soak in a bathtub, hot tub or swimming pool until your incisions are healed or after your doctor’s approval.

When can I start wearing a bra?
Your plastic surgeon will let you know when you can start wearing a bra. A front-closing bra is most comfortable and you may be given one after surgery. Also, wearing loose fitting clothes or tops that button or zip will be easier when dressing and undressing as raising your hands above your head may be painful for the first week or so.
When can I return to work?
Returning to work will be different depending on which reconstructive surgery you had. A breast reconstruction that uses natural tissue, such as a TRAM or DIEP Flap procedure, will require about six to eight weeks before you can return to work. For those undergoing expander/implant reconstruction the time to return to work may be four to six weeks. The amount of time needed away from work also varies depending on how physically demanding your job is.

When can I go back to normal activity and exercise?
A return to normal activity can be different for each person. During the first week, you should take things very slowly. You might find a gallon of milk hard to carry, depending on the type of reconstruction. By the second week, you should not be lifting anything heavier than 10 pounds or a medium size bag of groceries. This can continue for up to six weeks.

Avoid exercise or work activity that might strain your chest and abdominal muscles during the first few weeks. You should not drive until your doctor permits. Usually this is not until after the first two weeks, or when you can lift your arms above your head comfortably and are not taking narcotic pain medicine.

An occupational therapist will guide your exercise activity. Your occupational therapy will begin one week after surgery.

How often will I need to return for follow-up care?
Following breast reconstruction, your plastic surgeon would like to see you every week for the first two to three weeks. After that, your clinic visits will likely be less often, at one month, six weeks and then in six-month intervals.

For more answers to frequently asked questions, information on breast reconstruction, or to learn about our providers, please contact the UW Health Plastic Surgery Clinic at (608) 263-7502 or visit uwhealth.org/breast-reconstruction.

“Deep Inferior Epigastric Perforator (DIEP) flap reconstruction is a great option for patients who wish to avoid implants because the patient’s own tissue is used.”

– Dr. Samuel Poore, UW Health reconstructive surgeon