

Frederick J. Duffy, Jr., M.D., F.A.C.S.

Breast Reconstruction



BREAST RECONSTRUCTION: A WOMAN'S DECISION

Options and Information

"My approach to breast reconstruction entails a very individualized approach. I try to learn as much about my patients and their goals and desires as possible in my initial consultation. If the patient desires breast reconstruction, my recommendation as to the type of reconstruction is based on a large number of factors and the patient's decision is ultimately influenced by my recommendations in concert with her own wishes, input from her family, friends, breast surgeon, and oncologist."

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THE IMPORTANCE OF CHOICES

Today there are more reconstructive options available for patients than ever before. Each type of reconstruction has benefits and risks, and what may be the best approach for one patient may be entirely different for another patient. For this reason, Dr. Duffy is proud to be able to offer his patients all the available options for reconstruction. In fact, he is the only surgeon in this part of the state who is able to offer all the possible reconstruction options, particularly pertaining to the more complex microsurgical options.

WHY CHOOSE BREAST RECONSTRUCTION?

Each patient ultimately has her own reasons for choosing reconstruction. Over the years, we have heard patients offer a variety of reasons. Some of the most common are:

"I need to feel whole again."

"I feel good and I want to look as good as I feel."

"I want to feel sexy again and I want my husband to see me as sexy."

"I want to start dating again and want any future lovers to see me as a whole woman."

WHEN IS BREAST RECONSTRUCTION DONE?

Breast reconstruction can be done immediately following the mastectomy (while the patient is still under general anesthesia), or it can be done in a delayed or secondary fashion.

In general, the reconstructive result is probably a bit better when the procedure is done immediately following the mastectomy. In an immediate reconstruction, the skin and other soft tissues around the mastectomy have not contracted down or scarred yet. However, some patients are undecided about reconstruction or are too emotionally distraught by the diagnosis and choose to consider breast reconstruction at a later date (after they have recovered from their mastectomy and subsequent chemotherapy or radiation therapy).

Each patient is different and the decision to proceed with immediate or secondary breast reconstruction may be influenced by the type of tumor the patient has. It is important to stress that excellent results can be obtained with both immediate and secondary breast reconstructions.

HOW MANY OPERATIONS ARE NEEDED TO RECONSTRUCT A BREAST?

A breast reconstruction is usually a sequence of operations that involve 2 or occasionally 3 stages.

The first operation is usually the longest and most complicated part of the reconstructive sequence. The second and third stages are almost always done as an outpatient. These secondary procedures may include implant exchanges, revisions of the reconstructed breast, nipple reconstruction, and possibly surgery on the opposite breast to achieve symmetry.

The timing of any subsequent procedures may be influenced by the need for chemotherapy or radiation therapy.

WHO IS A CANDIDATE FOR BREAST RECONSTRUCTION?

Most patients who wish to have a breast reconstruction are able to tolerate the surgery. However, there are some conditions which may be relative contraindications for breast reconstruction. These conditions include:

- | | |
|----------------------------|---------------------------|
| Advanced age | Heavy smoking |
| Poor medical health | Widely metastatic disease |
| Poorly controlled diabetes | Morbid obesity |

THE EFFECT OF RADIATION ON RECONSTRUCTION

Radiation affects tissues to a substantial degree. It may cause surgical wounds to heal at a slower rate, or it may cause tissues to contract or shrink in size. This can make the reconstructive process more difficult for the surgeon, regardless of the type of reconstruction chosen by the patient. However, Dr. Duffy gladly struggles with the difficulties of breast reconstruction in the setting of prior irradiation, because he knows radiation may save the lives of many of his patients. The first priority at all times is the treatment of the cancer and the survival of the patient.

IF A MASTECTOMY IS REQUIRED, WHAT ARE A WOMAN'S OPTIONS FOR RECONSTRUCTION?

The decision to proceed with breast reconstruction and what type of reconstruction can be a difficult and confusing one. Decisions about breast reconstruction are often bewildering to a patient currently facing the challenges of a recent cancer diagnosis. If breast reconstruction is desired, the first consideration is whether to have the reconstructive procedure immediately following the mastectomy or in a secondary fashion. In Dr. Duffy's practice, that decision is made by the breast surgeon in consultation with the plastic surgeon and the patient.

Once the patient has decided to proceed with breast reconstruction, the types of reconstruction that will be considered include:

- ❖ Breast expanders/implants
- ❖ A combination of implants with muscle or soft tissue flaps
- ❖ Muscle or soft tissue flaps alone
- ❖ Muscle or soft tissue flaps transferred using microsurgical techniques

It is important to point out there are no right or wrong decisions when considering breast reconstruction or the timing of breast reconstruction. Dr. Duffy will make a recommendation, and ultimately the decision is up to the patient.

DR. DUFFY'S ADVICE:

- ❖ You must feel comfortable with your plastic surgeon and have confidence in his or her's ability
- ❖ Ask questions & ask to see pictures
- ❖ Ask to speak with patients who have had the procedure you are considering
- ❖ Gather the data, consult with those you trust, and make the decision.....remember, there are no wrong decisions

“Stay informed. You are your own best advocate!”

SUMMARY

“In recent years, advances in breast reconstruction have allowed patients to achieve more natural breasts with less risk of complications. The recuperation from surgery is variable but recent techniques such as the DIEP flap often make recuperation quicker. Whether done immediately following a mastectomy or at a later date, reconstruction is an important part of each patient’s recovery.

I am happy to offer my patients a complete range of options. These options range from implants to the most complicated types of microsurgical reconstruction. A significant part of my practice involves breast reconstruction. Patients I consult with will be given the opportunity to view additional photographs of patients on whom I have operated, and will also have the opportunity to speak with my patients who have actually had the procedure they choose.

Once again, it is important to remember you cannot make a wrong decision. Deciding on what type of reconstruction to proceed with, or even whether or not to have reconstruction in the face of a recent diagnosis of breast cancer, can be a difficult process. There are no right or wrong answers in this complicated process.”

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BREAST EXPANDERS/IMPLANTS

For most patients, one of the first major decisions after deciding to proceed with reconstruction is deciding between breast reconstruction using their own tissues (various types of flaps) or using implants. There are advantages and disadvantages to each approach. In some cases it may be necessary to use implants with muscle or tissue flaps (see section later in this brochure on [Flap Reconstruction With Implants](#)).

WHAT ARE EXPANDERS AND WHY ARE THEY USED?

For many patients, after the mastectomy there is not enough skin or tissue around the breast to allow for immediate placement of a breast implant. For those patients, the first stage of surgery is to insert a tissue expander. A tissue expander is very similar to an implant except that there is only a small amount of fluid inside it initially so it is quite flat.

After the patient's incisions heal from that first stage of surgery, the doctor begins the process of expansion. This involves the patient coming to the office every 1-2 weeks for expansion. At each office visit the doctor uses a needle to insert saline into the expander to increase its size. As the amount of saline increases in the expander and it increases in size, the skin covering the expander stretches also. Each of these visits typically takes 10-15 minutes and patients usually find the expansion to be relatively painless.

Eventually, the expander reaches the size the patient desires and now there is sufficient skin available. The second stage of surgery then takes place in which Dr. Duffy removes the expander and replaces it with a permanent implant.

WHAT TYPES OF IMPLANTS ARE THERE?

There are basically two types of implants available to choose from – saline and silicone. Under current conditions, silicone implants are available to patients for reconstruction. Silicone implants can only be placed by surgeons who participate in one of several adjunct studies. Dr. Duffy participates with the Mentor adjunct study and is therefore able to offer his patients the choice of either saline or silicone implants.

Saline implants are actually implants made of a solid silicone shell and filled with saline. Silicone implants are made of a solid silicone shell and are filled with liquid silicone. The choice of which implant to use is made by the patient with Dr. Duffy's input. Dr. Duffy provides his patients with information regarding the safety of implants and the differences between the implants.

In addition to choosing silicone versus saline, there are also different shapes of implants. For the vast majority of patients, a round implant or high profile implant is most appropriate. Dr. Duffy works with each patient to recommend the best shape of implant to meet that patient's needs.

WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF IMPLANT RECONSTRUCTION?

Advantages:

- ❖ The recovery from the initial expander placement surgery is usually quicker than flap surgery.
- ❖ It may be easier to control the final size of the reconstructed breast with implant reconstruction.
- ❖ There are no additional scars on the patient's body other than those on the breasts.

Disadvantages:

- ❖ Because most patients require placement of an expander first followed by secondary replacement of the expander with an implant, this requires at least 2 surgical stages and multiple visits to the plastic surgeon's office between these stages for tissue expansion.
- ❖ It is important to realize that for patients who are having a unilateral (one-sided) mastectomy, matching the contralateral natural breast with an implant can be difficult. The shape and "feel" of an implant is not exactly like that of a natural breast.
- ❖ In the short term, implants can become infected or malpositioned and require surgery to correct these problems.
- ❖ In the longer term, implants can develop capsular contracture (tightening of the soft tissues around the implant), implant malposition, and implant rupture. All of these can require secondary procedures.

FLAP RECONSTRUCTION WITH IMPLANTS

For some patients Dr. Duffy may recommend the use of a tissue flap on top of the breast implant. This may be recommended based upon the patient's anatomy in order to achieve a more natural appearing breast, or it may be to protect the implant in a patient who is going to undergo radiation therapy. A "flap" is typically a combination of muscle, fat, and skin tissues and can be taken from the patient's abdomen, back, or other parts of the body.

The most common type of tissue flap used over an implant is the latissimus flap. This involves the surgeon taking tissue from the patient's back (in an area over the scapula or "shoulder blade"). The tissue is rotated around to the breast area and used to cover the implant. This provides more coverage or protection for the implant than skin alone.

WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF IMPLANT RECONSTRUCTION WITH A FLAP?

Advantages:

- ❖ With a flap covering the implant, there may be fewer complications relating to radiation therapy.
- ❖ Because there is additional tissue provided by the flap, patients typically do not need to have an expander placed and can have the flap with implant done at one surgery rather than the two stages typically needed for implants alone.

Disadvantages:

- ❖ Flap reconstruction may require a somewhat longer and more difficult surgery at the first stage when compared with implants alone. This may mean a longer recuperation for most patients.
- ❖ With a latissimus flap patients may experience some weakness initially in the use of the arm on the reconstructed side. However, the shoulder and arm have numerous muscles involved in motion and most patients quickly overcome this weakness with the use of the other muscles in the area.
- ❖ Patients will have an additional scar at the site where the flap is obtained. For a latissimus flap, the scar is typically 6-8 inches long and runs below the scapula or "shoulder blade" on the reconstructed side(s).

LATISSIMUS FLAP RECONSTRUCTION WITHOUT IMPLANTS

Breast reconstruction can be done without implants, using a flap of tissue. A “flap” is typically a combination of muscle, fat, and skin tissues and can be taken from the patient’s abdomen, back, or other parts of the body.

A latissimus flap involves the surgeon taking tissue from the patient’s back (in an area below the scapula or “shoulder blade”). The tissue is rotated around and used to construct a new breast. In most cases a latissimus flap is used in conjunction with an implant in order to achieve the desired size or to protect the implant (see previous section on [Flap Reconstruction With Implants](#)). However, it is sometimes possible to do a breast reconstruction using a latissimus flap without an implant. Because of the amount of tissue available on the back, the reconstructed breast will typically be small. However, depending upon the patient’s preferences, this may be an option.

WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF LATISSIMUS FLAP WITHOUT IMPLANT RECONSTRUCTION?

Advantages:

- ❖ Since the reconstruction involves using the patient’s own tissues, the risks of implant reconstruction are avoided.
- ❖ It is typically easier to match the contralateral breast with natural tissue than with an implant.

Disadvantages:

- ❖ Flap reconstruction may require a longer and more difficult surgery at the first stage when compared with implants. This may mean a longer recuperation for most patients.
- ❖ When a latissimus flap is used patients may experience some weakness initially in the use of the arm on the reconstructed side. However, the shoulder and arm have numerous muscles involved in motion and most patients quickly overcome this weakness with the use of the other muscles in the area.
- ❖ Patients will have an additional scar at the site where the flap is obtained. For a Latissimus flap, the scar is typically 6-8 inches long and runs along the scapula or “shoulder blade” on the reconstructed side(s).

TRAM FLAP RECONSTRUCTION

A TRAM flap has traditionally been one of the most commonly used types of breast reconstruction. In recent years, however, the advent of perforator flaps (such as the DIEP, SIEA, and SGAP flaps) has virtually eliminated the use of TRAM flaps in Dr. Duffy's practice. Virtually all patients who are candidates for a TRAM are also candidates for perforator flaps. Most patients will choose the perforator flap reconstruction over the TRAM when offered that option by their physician. Unfortunately, there are not many surgeons trained in the microsurgical skills necessary for perforator flap surgery so the TRAM flap continues to be done commonly in other practices. Information about the TRAM flap is provided here so that each patient can understand all her options.

A "flap" is typically a combination of muscle, fat, and skin and can be taken from the patient's abdomen, back, or other parts of the body. In the case of a TRAM flap, the tissue is taken from the abdomen.

The type of TRAM flap (i.e. pedicle versus free, etc) simply indicates the method by which the surgeon moves the abdominal tissue up onto the chest site to create the new breast. The decision as to which method to use is made by the surgeon based upon the patient's anatomy and clinical situation. A "free" TRAM is one which involves using microsurgical techniques to move the tissue.

The TRAM flap involves tissue being moved from the abdomen and leaves the patient with a long scar across the lower abdomen. The scar, and the tissue removed, is very similar to that used during an abdominoplasty ("tummy tuck") so patients typically have a much flatter abdominal contour after surgery.

WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF TRAM FLAP RECONSTRUCTION?

Advantages:

- ❖ Since the reconstruction involves using the patient's own tissues, the risks of implant reconstruction are avoided.
- ❖ It is typically easier to match the contralateral natural breast with the patient's own (autologous) tissues when compared with an implant reconstruction.
- ❖ When a TRAM flap is used patients essentially end up with a "tummy tuck" at the same time as the breast reconstruction.
- ❖ All of these advantages are also true of the perforator flaps.

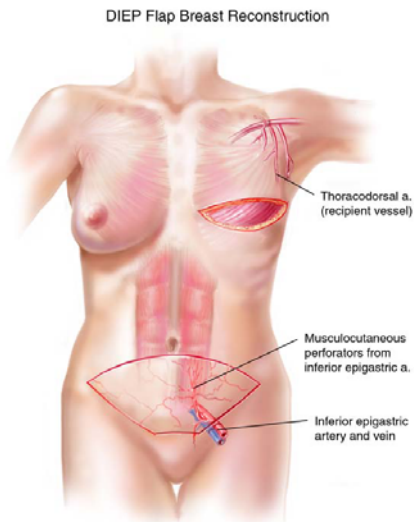
Disadvantages:

- ❖ TRAM flap reconstruction generally requires a longer and more difficult surgery at the first stage when compared with implants. This usually means a longer recuperation for most patients.
- ❖ Many patients experience some abdominal muscle weakness following a TRAM flap. This is because some of the abdominal wall muscle is moved as part of the TRAM flap. This disadvantage is reduced by the use of the DIEP/SIEA flaps instead of the TRAM flap.
- ❖ There is the possibility of developing hernias at the site where the flap is removed from, due to the incisions made in the abdominal muscle wall. This disadvantage is also reduced by the use of the DIEP/SIEA flaps instead of the TRAM flap.
- ❖ Patients will have a scar across the lower abdomen where the flap is taken from.

DIEP AND SIEA FLAP RECONSTRUCTION

One of the most recent developments in breast reconstruction is the use of perforator flaps such as the DIEP or SIEA flaps. These involve using tissue from the abdomen, as is done with a TRAM flap (see earlier section on [TRAM Flap Reconstruction](#)). However, with a DIEP or SIEA flap the abdominal muscles of the abdomen are left intact. The blood vessels needed to keep the flap alive are

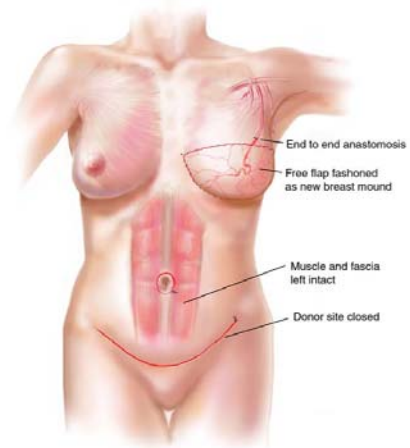
microsurgically dissected by the surgeon through the abdominal muscle, enabling the surgeon to use the overlying tissue without removing the abdominal muscle. The DIEP and SIEA flaps utilize the same tissues but involve somewhat different blood vessels. The determination as to which of these two flap types to use is made by the surgeon, often at the time of the surgery itself, and is based upon the best available vessels in a particular patient's anatomy.



Patients have the same long scar across the abdomen as those who have a TRAM flap, and achieve much the same flatter abdominal contour after surgery. However, patients typically experience fewer complications due to muscle loss and have quicker recuperation periods than patients with TRAM flaps.

More detail on the DIEP/SIEA flaps can be obtained at our website www.DallasDiep.com.

Currently, Dr. Duffy is the only surgeon in this area who performs perforator flaps such as the DIEP and SIEA flaps. He is very excited to be able to offer this option to patients.



WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF DIEP/SIEA FLAP RECONSTRUCTION?

Advantages:

- ❖ Since the reconstruction involves using the patient's own tissues, the risks of implant reconstruction are avoided.
- ❖ Most patients have less postoperative pain than after a TRAM flap and are therefore able to leave the hospital sooner, and return to normal activities quicker than after a TRAM flap.
- ❖ Because the abdominal muscle is not removed, patients have less risk of developing hernias at the site where the flap is removed than patients who have had a TRAM flap.
- ❖ It is typically easier to match the contralateral natural breast with the patient's own tissue when compared with implant reconstruction.
- ❖ Patients essentially end up with a "tummy tuck" at the same time as the breast reconstruction.

Disadvantages:

- ❖ DIEP/SIEA flap reconstruction generally requires a longer and more difficult surgery at the first stage when compared with implants or TRAM flaps.
- ❖ Patients will have a scar across the lower abdomen where the flap is obtained.

SURGERY ON THE OTHER BREAST

For patients who have a unilateral mastectomy, it may be necessary or desirable to have surgery on the contralateral breast in order to make the breasts symmetric.

For example, patients with fairly large breasts may not be able to achieve the same size in the newly reconstructed breast and so they may have a breast reduction done in the other breast.

Many patients have breasts which have become ptotic (droopy) with age. Newly reconstructed breasts are actually more youthful in appearance. Therefore, many patients have a mastopexy (breast lift) done on the natural breast.

FORTUNATELY, IN MOST CASES TEXAS STATE LAW REQUIRES INSURANCE TO COVER SURGERY DONE ON THE CONTRALATERAL BREAST FOR SYMMETRY, WHETHER THIS INVOLVES A REDUCTION, AUGMENTATION, OR MASTOPEXY.

ABOUT DR. DUFFY AND HIS PRACTICE

You can learn more about Dr. Duffy and his practice at our main website:

www.duffyplasticsurgery.com

You can contact our office by telephone at 972-566-3939 or by email at AskDrDuffy@duffyplasticsurgery.com. We encourage your questions and input.