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Breast reconstruction - natural tissue

After a mastectomy, some women choose to have surgery to rebuild their breast. This type of surgery is called breast reconstruction. It can be performed at the same time as a mastectomy (immediate reconstruction) or later (delayed reconstruction).

During breast reconstruction that uses natural tissue, the breast is reshaped using muscle, skin, or fat from another part of your body. Sometimes a combination of the different types of tissue is used. An implant may also be used with the tissue to add volume.

Description

If you are having breast reconstruction at the same time as your mastectomy, the surgeon may do either of the following:

- Skin-sparing mastectomy. This means that the nipple and areola and a small area of skin around it is removed.
- Nipple-sparing mastectomy. This means all of the skin, nipple, and areola (the pigmented skin around the nipple) are left in place when the breast is removed.

In either case, skin is left to make reconstruction easier.

If you will have breast reconstruction later, the surgeon can still do skin- or nipple-sparing mastectomy. If you are not sure about having reconstruction, the surgeon may remove the nipple and enough skin to make the chest wall as smooth and flat as possible.

Types of breast reconstruction include the following:

- Deep inferior epigastric artery perforator flap (DIEP or DIEAP)
- Latissimus muscle flap
- Gluteal flap
- Transverse upper gracilis flap (TUG)
- Transverse rectus abdominus myocutaneous flap (TRAM)

For any of these procedures, you will have general anesthesia. This uses medicines that keep you asleep and pain-free.

For TRAM surgery:

- The surgeon makes a cut (incision) across your lower belly, from one hip to the other. Your scar will be hidden later by most clothing and bathing suits.
- The surgeon loosens skin, fat, and muscle in this area. This tissue is then tunneled under the skin of your abdomen up to the breast area to create your new breast. Blood vessels remain connected to the area from where the tissue is taken.
- In another method called the free flap procedure, skin, fat, and muscle tissue are removed from your lower belly. This tissue is placed in your breast area to create your new breast. The arteries and veins are cut and reattached to blood vessels under your arm or behind your breastbone.
- This tissue is then shaped into a new breast. The surgeon matches the size and shape of your remaining natural breast as closely as possible. Sometimes the tissue is used to reconstruct both breasts.
- The incisions on your belly are closed with stitches.
- If a skin sparing mastectomy has been done and you would like a new nipple and areola created, you will need a second, much smaller surgery later. Or, the nipple and areola can be created with a tattoo/permanent makeup.

For latissimus muscle flap with a breast implant:

- The surgeon makes a cut in your upper back, on the side of your breast that was removed.
- The surgeon loosens skin, fat, and muscle from this area. This tissue is then tunneled under your skin to the breast area to create your new breast. Blood vessels remain connected to the area from where the tissue was taken.
- This tissue is then shaped into a new breast. The surgeon matches the size and shape of your remaining natural breast as closely as possible.
- An implant may be placed underneath the chest wall muscles to help match the size of your other breast.
- The incisions are closed with stitches.
- If a skin sparing mastectomy has been done and you would like a new nipple and areola created, you will need a second, much smaller surgery later. Or, the nipple and areola can be created with a tattoo/permanent makeup.

For a DIEP or DIEAP flap:

- The surgeon makes a cut across your lower belly. Skin and fat from this area is loosened. This tissue is then placed in your breast area to create your new breast. The arteries and veins are cut and then reattached to the blood vessels under your arm or behind your breastbone.
- The tissue is then shaped into a new breast. The surgeon matches the size and shape of your remaining natural breast as closely as possible.
- The incisions are closed with stitches.
- If a skin sparing mastectomy has been done and you would like a new nipple and areola created, you will need a second, much smaller surgery later. Or, the nipple and areola can be created with a tattoo/permanent makeup.

For a gluteal flap:

- The surgeon makes a cut in your buttocks. Skin, fat, and possibly muscle from this area are loosened. This tissue is placed in your breast area to create your new breast. The arteries and veins are cut and then

reattached to the blood vessels under your arm or behind your breastbone.

- The tissue is then shaped into a new breast. The surgeon matches the size and shape of your remaining natural breast as closely as possible.
- The incisions are closed with stitches.
- If a skin sparing mastectomy has been done and you would like a new nipple and areola created, you will need a second, much smaller surgery later. Or, the nipple and areola can be created with a tattoo/permanent makeup.

For a TUG flap:

- The surgeon makes a cut in your thigh. Skin, fat, and muscle from this area are loosened. This tissue is placed in your breast area to create your new breast. The arteries and veins are cut and then reattached to the blood vessels under your arm or behind your breastbone.
- The tissue is then shaped into a new breast. The surgeon matches the size and shape of your remaining natural breast as closely as possible.
- The incisions are closed with stitches.
- If a skin sparing mastectomy has been done and you would like a new nipple and areola created, you will need a second, much smaller surgery later. Or, the nipple and areola can be created with a tattoo/permanent makeup.

When breast reconstruction is done at the same time as a mastectomy, the entire surgery may last 8 to 10 hours. When it is done as a second surgery, it may take up to 12 hours.

Why the Procedure is Performed

You and your surgeon will decide together about whether to have breast reconstruction and when. The decision depends on many different factors.

Having breast reconstruction does not make it harder to find a tumor if your breast cancer comes back.

The advantage of breast reconstruction with natural tissue is that the remade breast is softer and more natural than breast implants. The size, fullness, and shape of the new breast can be closely matched to your other breast.

But muscle flap procedures are more complicated than placing breast implants. You may need blood transfusions during the procedure. You will usually spend 2 or 3 more days in the hospital after this surgery compared to other reconstruction procedures. Also, your recovery time at home will be much longer.

Some women choose not to have breast reconstruction or implants. They may use a prosthesis (an artificial breast) in their bra that gives a natural shape. Or, they may choose to use nothing at all.

Risks

Risks of anesthesia and surgery are:

- Reactions to medicines
- Breathing problems
- Bleeding, blood clots, or infection

Risks of breast reconstruction with natural tissue are:

- Loss of sensation around the nipple and areola
- Noticeable scar
- One breast is larger than the other (asymmetry of the breasts)
- Loss of the flap because of problems with blood supply, requiring more surgery to save the flap or to remove it
- Bleeding into the area where the breast used to be, sometimes requiring a second surgery to control the bleeding
- Weakness in the area from which the muscle was taken

Before the Procedure

Ask your surgeon if you need a screening mammogram based on your age and risk of having breast cancer. This should be done long enough before surgery so if more imaging or a biopsy is needed, your planned surgery date won't be delayed.

Tell your surgeon or nurse if:

- You are or could be pregnant
- You are taking any medicines, including medicines, drugs, supplements, or herbs you bought without a prescription

Planning for your surgery:

- If you have diabetes, heart disease, or other medical conditions, your surgeon may ask you to see your health care provider who treats you for these conditions.
- If you smoke, it's important to cut back or quit. [Smoking can slow healing and increase the risk for blood clots. Your surgeon may postpone surgery if you continue to smoke. Ask your provider for help quitting smoking.
- If needed, prepare your home to make it easier to recover after surgery.
- Arrange for someone to drive you home after surgery and help you around the house for 1 or 2 days.

During the week before your surgery:

- You may be asked to temporarily stop taking medicines that keep your blood from clotting. These medicines are called blood thinners. This includes over-the-counter medicines and supplements such as aspirin, ibuprofen (Advil, Motrin), naproxen (Aleve, Naprosyn), and vitamin E. Many prescription medicines are also blood thinners.
- Ask your surgeon which medicines you should still take on the day of your surgery.

On the day of your surgery:

- Follow instructions about when to stop eating and drinking.
- Take the medicines your surgeon told you to take with a small sip of water.
- Arrive at the hospital on time.

After the Procedure

You will stay in the hospital for 2 to 5 days.

You may still have drains in your chest when you go home. Your surgeon will remove them later during an office visit. You may have pain around your incisions after surgery. Follow instructions about taking pain medicine.

Fluid may collect under the incision. This is called a seroma. It is fairly common. A seroma may go away on its own. If it doesn't go away, it may need to be drained by the surgeon during an office visit.

Outlook (Prognosis)

Results of this surgery are usually very good. But reconstruction will not restore normal sensation of your new breast or nipple.

Having breast reconstruction surgery after breast cancer can improve your sense of well-being and quality of life.

Alternative Names

Transverse rectus abdominus muscle flap; TRAM; Latissimus muscle flap with a breast implant; DIEP flap; DIEAP flap; Gluteal free flap; Transverse upper gracilis flap; TUG; Perforator flap-breast reconstruction; Mastectomy - breast reconstruction with natural tissue; Breast cancer - breast reconstruction with natural tissue

References

American Cancer Society website. Surgery for breast cancer.

www.cancer.org/cancer/breast-cancer/treatment/surgery-for-breast-cancer.html [https://www.cancer.org/cancer/breast-cancer/treatment/surgery-for-breast-cancer.html]

. Updated January 11, 2023. Accessed February 24, 2025.

Boukovalas S, Kalaria SS, Park JE. Breast reconstruction. In: Townsend CM Jr, Beauchamp RD, Evers BM, Mattox KL, eds. *Sabiston Textbook of Surgery*. 21st ed. St Louis, MO: Elsevier; 2022:chap 36.

Macmillan RD. Mastectomy. In: Dixon JM, Barber MD, eds. *Breast Surgery: A Companion to Specialist Surgical Practice*. 7th ed. Philadelphia, PA: Elsevier; 2024:112-121.

National Cancer Institute website. Breast reconstruction after mastectomy.

www.cancer.gov/types/breast/reconstruction-fact-sheet [https://www.cancer.gov/types/breast/reconstruction-fact-sheet]

. Updated February 24, 2017. Accessed February 25, 2025.

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