Breast Reconstruction After Mastectomy

What is breast reconstruction?

_Breast reconstruction_ is a type of surgery for women who have had all or part of a breast removed. The surgery rebuilds the breast mound to match the size and shape of the other breast. The nipple and the darker area around the nipple (areola) can also be added.

Most women who have had a breast removed (mastectomy) are able to have breast reconstruction. Women who have had only the part of the breast around the cancer removed (lumpectomy or breast-conserving surgery) might not need reconstruction, but sometimes they do. Breast reconstruction is done by a plastic surgeon.

Here are some facts to help you better understand the process and the words used when talking about breast reconstruction. Some of the words you might hear doctors use are also explained in the glossary at the end.

The decision to have breast reconstruction is yours to make. Try to learn as much as you can before deciding what to do. You and those close to you should talk with your healthcare team about any questions and concerns you have about this type of surgery.

New choices in breast cancer surgery and reconstruction

The emotional and physical results of breast cancer are very different now from what they were in the past. Much more is known about breast cancer and its treatment. New treatments, as well as improved reconstructive surgery, mean that women who have breast cancer today have more choices and better outcomes.

Today, many women with breast cancer choose surgery that removes only the tumor and an edge or margin of healthy tissue around it. This is called _breast conservation surgery_. (It may also be called _lumpectomy_, or _segmental mastectomy_.) But some women aren’t able to have breast conservation surgery, or they prefer to have the entire breast removed. There are different types of mastectomies, some of which save the skin and even the nipple and areola. Women who have a mastectomy may choose reconstructive surgery to rebuild the shape and look of the breast.

If you are thinking about having reconstructive surgery, it’s a good idea to talk about it with your surgeon and a plastic surgeon experienced in breast reconstruction _before_ the surgery to remove
the tumor or breast. This lets the surgical teams plan the best treatment for you, even if you want to wait and have reconstructive surgery later.

Why have breast reconstruction?

Women choose breast reconstruction for many reasons:

• To make their chest look balanced when they are wearing a bra or swimsuit
• To permanently regain their breast shape
• So they don’t have to use a form that fits inside the bra (an \textit{external prosthesis})
• To be happier with their bodies and how they feel about themselves

Breast reconstruction often leaves scars that can be seen when you’re naked, but they often fade over time. Newer techniques have also reduced the amount of scarring. When you’re wearing a bra, the breasts should be alike enough in size and shape to let you feel comfortable about how you look in most types of clothes.

Breast reconstruction has been shown to improve body image and self-esteem when compared to no reconstruction. Still, some women are not happy with how the reconstructed breast looks and feels after surgery, and there may be concerns about the flap or donor sites, too. Learn as much as you can so you know what you can expect from reconstruction.

There are often many options to think about as you and your doctors talk about what’s best for you. The reconstruction process sometimes means more than one operation. Talk about the benefits and risks of reconstruction with your doctors \textbf{before} the surgery is planned. Give yourself plenty of time to make the best decision for you. You should make your decision about breast reconstruction only after you are fully informed.

Immediate or delayed breast reconstruction

\textit{Immediate breast reconstruction} is done, or at least started, at the same time as the mastectomy. The benefit of this is that breast skin is often preserved, which can produce better-looking results. Women also do not have to go without the shape of a breast.

While the first step in reconstruction is often the major one, many steps are often needed to get the final shape. If you’re planning to have immediate reconstruction, be sure to ask what will need to be done afterward and how long it will take.

\textit{Delayed breast reconstruction} means that the rebuilding is started later. This may be a better choice for some women who need radiation to the chest area after the mastectomy. Radiation therapy given after breast reconstruction surgery can cause problems like delayed healing and scarring.

Decisions about reconstructive surgery also depend on many personal factors such as:

• Your overall health
• The stage of your breast cancer (how much there is and if it has spread)
- The size of your natural breast
- The amount of tissue available (for example, very thin women may not have enough extra body tissue to make flap grafts)
- Whether you want reconstructive surgery on both breasts
- Your insurance coverage and related costs for the unaffected breast
- The type of procedure you are thinking about having
- The size of the implant or reconstructed breast
- Your desire to match the look of the other breast

Other important things to think about

- Some women don’t want to think about reconstruction while coping with cancer. If this is the case, you might choose to wait until after your breast cancer surgery to decide about reconstruction.
- You might not want to have any more surgery than is absolutely required.
- Not all reconstructive surgery is a total success, and the result might not look like you’d hoped.
- The mastectomy and reconstruction surgery will leave scars on the breast and any donor areas.
- A rebuilt breast will not have the same sensation and feeling as the natural breast, and any flap donor sites might also lose some sensation.
- You may have extra concerns if you tend to bleed or scar more than most people.
- Breast skin or flaps might not survive reconstructive surgery. This tissue death is called necrosis. If it happens, healing is delayed and more surgery is often needed to fix the problem.
- Healing could be affected by previous surgery, chemotherapy, radiation, smoking, diabetes, some medicines, and other factors.
- Would you prefer to have reconstruction before or after you complete your cancer treatment?
- Breast reconstruction restores the shape, but not feeling, in the breast. With time, the skin on the reconstructed breast can become more sensitive, but it won’t feel the same as it did before the mastectomy.
- Surgeons may suggest you wait for one reason or another, especially if you smoke or have other health problems. It’s best to quit smoking at least 2 months before reconstructive surgery to allow for better healing. You might not be able to have reconstruction at all if you are obese, too thin, or have blood circulation problems.
- The surgeon may suggest surgery to reshape the other breast to match the reconstructed breast. This could include reducing or enlarging its size, or even surgically lifting the breast.
Many doctors recommend that women not have immediate reconstruction if they will need radiation treatments after surgery. It can cause problems after surgery and lower the chances of success. Flap surgeries (moving tissue around) are often delayed until after radiation.

Knowing your reconstruction options before surgery can help you prepare for a mastectomy with a more realistic outlook for the outcomes.

**Types of breast reconstruction**

Several types of operations can be done to reconstruct the shape of your breast. You can have a newly shaped breast with the use of a breast implant, your own tissue flap, or a combination of both. (A tissue flap is a section of your own skin, fat, and in some cases muscle which is moved from another area of your body to your chest.)

**Implant procedures**

**Types of implants**

Implants have a silicone shell filled with either silicone gel or salt water (saline).

*Silicone gel-filled implants* are one option for breast reconstruction. Most of the recent studies show that silicone implants do not increase the risk of immune system problems, and the FDA (Food and Drug Administration) has approved silicone implants since 2006.

Some newer types use thicker silicone gel, called *cohesive gel*. The thickest ones are sometimes called “gummy bear” implants and are made of highly cohesive silicone. They are more accurately called *form-stable* implants, meaning that they keep their shape even if the cover is cut or broken. Although it was first thought they wouldn’t leak even if they did break, there have been reports of ruptures with leakage. Form-stable implants were approved in early 2013 in the United States.

*Alternative breast implants* that have different shells and are filled with different materials are being studied, but you can only get them when they are available in clinical trials. You can learn more about clinical trials online, or call us at 1-800-227-2345.

**Types of implant surgery**

*One-stage immediate breast reconstruction* is also called direct-to-implant reconstruction. For this, the final implant is put in at the same time as the mastectomy is done. After the surgeon removes the breast tissue, a plastic surgeon places a breast implant. The implant is usually put beneath the muscle on your chest. A special type of graft or an absorbable mesh is used to hold the implant in place, much like a hammock or sling. (See the section “New methods of tissue support.”).

*Two-stage reconstruction* means that a short-term tissue expander is put in after the mastectomy. The expander is a balloon-like sac that’s slowly expanded to the desired size to allow the skin flaps to stretch. It’s used when the surgeon believes that the mastectomy skin flaps are not healthy enough to support a full-sized implant right away. Through a tiny valve under the skin, the surgeon injects a salt-water solution at regular intervals to fill the expander over a period of about 2 to 3 months. After the skin over the breast area has stretched enough, a second surgery will remove the expander and put in the permanent implant. Some expanders are left in place as the final implant.
The two-stage reconstruction is sometimes called delayed-immediate reconstruction because it allows time for other treatment options. If radiation therapy is needed, the final placement of the implant is put off until radiation treatment is complete. If radiation is not needed, the surgeon can start right away with the tissue expander.

**Considerations about implants**

Keep these important factors in mind if you are thinking about having implants to reconstruct the breast and/or to make the other breast match the reconstructed one:

- You may need more surgery to remove and/or replace your implant later. In fact, up to half of implants used for breast reconstruction have to be removed, modified, or replaced in the first 10 years.

- You can have problems with breast implants. They can break (rupture) or cause infection or pain. Scar tissue may form around the implant (called capsular contracture), which can make the breast harden or change shape, so that it no longer looks or feels like it did just after surgery. Most of these problems can be fixed with surgery, but others might not be reversible.

- MRIs may be needed every few years to make sure silicone gel implants have not broken. Your health insurance may not cover this.

- Routine mammograms to check your remaining breast for cancer will be more difficult if you have a breast implant there – you’ll need more x-rays of the breast, and the compression may be more uncomfortable.

- An implant in the remaining breast could affect your ability to breastfeed, either by reducing the amount of milk or stopping your body from making milk.

**Tissue flap procedures**

These procedures use tissue from your tummy, back, thighs, or buttocks to rebuild the breast shape. The most common types of tissue flap procedures are from the lower abdomen (called TRAM [transverse rectus abdominis muscle flap] or DIEP [deep inferior epigastric perforator flap]), and the latissimus dorsi flap, which uses tissue from the upper back. Other tissue flap surgeries described below are more specialized, and may not be done everywhere.

These operations leave 2 surgical sites and scars – one where the tissue was taken and one on the reconstructed breast. The scars fade over time, but never go away. There can be donor site problems such as abdominal hernias and muscle damage or weakness. There can also be differences in the size and shape of the breasts. Because healthy blood vessels are needed for the tissue’s blood supply, flap procedures can cause more problems in smokers, and in women who have uncontrolled diabetes, vascular disease (poor circulation), or connective tissue diseases.

In general, flaps require more surgery and a longer recovery. But when they work well, they look more natural and behave more like the rest of your body. For instance, they may enlarge or shrink as you gain or lose weight. There’s also no worry about implant replacement or rupture.
Abdominal flaps: TRAM and DIEP

The TRAM (transverse rectus abdominis muscle) flap procedure uses tissue and muscle from the tummy (the lower abdominal wall). Some women have enough tissue in this area to shape the breast, so an implant may not be needed. The skin, fat, blood vessels, and at least one abdominal muscle are moved from the belly (abdomen) to the chest. The TRAM flap can decrease the strength in your belly, and may not be possible in women who have had abdominal tissue removed in previous surgeries. The procedure also results in a tightening of the lower belly, or a “tummy tuck.”

There are different types of TRAM flaps:

- A pedicle TRAM flap leaves the flap attached to its original blood supply and tunnels it under the skin to the chest. It usually requires removing most if not all of the rectus muscle on that side, which means an increased risk of bulging and/or hernia on one side of the abdomen.

- A free TRAM moves tissue from the same part of the lower abdomen but doesn’t take very much muscle. The flap is completely disconnected and moved up to the chest. The blood vessels (arteries and veins) must then be reattached. This requires the use of a microscope (microsurgery) to connect the tiny vessels and the surgery takes longer than a pedicle TRAM flap. The blood supply to the flap is usually better than with pedicle flaps and the donor site (abdomen) often looks better. The main risk is that sometimes the blood vessels get clogged and the flap doesn’t work.

The DIEP (deep inferior epigastric perforator) flap uses fat and skin from the same area as the TRAM flap but does not use the muscle to form the breast shape. This results in less skin and fat in the lower belly (abdomen), or a “tummy tuck.” This method uses a free flap, meaning that the tissue is completely cut free from the tummy and then moved to the chest. As in the free TRAM surgery, a microscope is needed to connect the tiny blood vessels. There’s less risk of a bulge or hernia because no muscle is taken.

TRAM flap incisions

The tissue used to rebuild the breast shape
Latissimus dorsi flap

The latissimus dorsi flap tunnels muscle, fat, skin, and blood vessels from your upper back, under the skin to the front of the chest. This provides added coverage over an implant and makes a more natural-looking breast than just an implant alone. It can sometimes be used without an implant. It’s a very reliable flap and can even be used in women who smoke (smoking can delay healing). Though it’s not common, some women have weakness in their back, shoulder, or arm after this surgery.
**Gluteal free flap**

The *gluteal free flap* or GAP (*gluteal artery perforator*) flap is a newer type of reconstruction surgery that uses tissue from the buttocks, including the gluteal muscle, to create the breast shape. It might be an option for women who cannot or do not wish to use the tummy sites due to thinness, incisions, failed tummy flap, or other reasons, but it’s not offered in many areas of the country. The method is much like the free TRAM flap mentioned above. The skin, fat, blood vessels, and muscle are cut out of the buttocks and then moved to the chest. Like all of the free flaps, a microscope (microsurgery) is needed to connect the tiny vessels.

![GAP flap surgery](image)

**Inner thigh or TUG flap**

A newer option for those who can’t or don’t want to use TRAM or DIEP flaps is a surgery that uses muscle and fatty tissue from along the bottom fold of the buttock extending to the inner thigh. This is called the *transverse upper gracilis flap* or *TUG flap*, and it’s only available in some centers. Because the skin, muscle, and blood vessels are cut out and moved to the chest, a microscope is used to connect the tiny blood vessels to their new blood supply. Women with thin thighs don’t have much tissue here, so the best candidates for this type of surgery are women whose inner thighs touch and who need a smaller or medium-sized breast. Sometimes there are healing problems due to the location of the donor site but they tend to be minor and easily treated.
New methods of tissue support

Tissue support is sometimes needed, especially when implants are used for breast reconstruction. This tissue can provide added coverage, support the implant, or position the muscle where it needs to be. There are many different products that use donated human skin (such as AlloDerm® and DermaMatrix®) to support implants or transplanted tissues. These products are regulated by the FDA (Food and Drug Administration) as human tissues used for transplant. But they’ve had the human cells removed (are acellular), which reduces any risk that they carry diseases or the body will reject them. They are used to extend and support natural tissues and help them grow and heal. In breast reconstruction they may be used with expanders and implants. They have also been used in nipple reconstruction.

Doctors can also use synthetic mesh, animal grafts, and more recently, animal skin with the cells removed (an acellular matrix such as Strattice™), and other methods for internal support.

The acellular matrix products are newer in breast reconstruction. Studies that look at outcomes are still being done, but have been promising overall. This skin tissue is not used by every plastic surgeon, but is becoming more widely available. Talk with your doctor about whether these
materials will be used in your reconstruction and how they might affect your possible risk of complications or their possible benefit in making a better reconstruction.

**Nipple and areola reconstruction**

You can decide if you want to have your nipple and the dark area around the nipple (areola) reconstructed. Nipple areola reconstructions usually are the final phase of breast reconstruction. This is a separate surgery done to make the reconstructed breast look more like the original breast. It can be done as an outpatient procedure after the area is numbed (with local anesthesia). It’s usually done after the new breast has had time to heal (about 3 to 4 months after surgery).

Ideally, nipple and areola reconstruction matches the position, size, shape, texture, color, and projection of the new nipple to the natural one. Tissue used to rebuild the nipple and areola is taken from your body, such as from the newly created breast, opposite nipple, ear, eyelid, groin, upper inner thigh, or buttocks. In some cases, doctors build up the areola and nipple area with donor skin that’s had the cells removed. (See “New methods of tissue support” for more on donor skin products.) Tattooing may be used to match the color of the nipple and areola of the other breast.

Some people opt to have just the tattoo, without nipple and areola reconstruction. A skilled plastic surgeon may be able to use pigment in shades that make the flat tattoo look 3-dimensional.

**Nipple-sparing procedures**

In a nipple-sparing mastectomy or areola-sparing mastectomy, the nipple and/or areola are left in place while the breast tissue under them is removed. Women who have a small cancer near the outer part of the breast, with no signs of cancer in the skin or near the nipple, might be able to have nipple-sparing surgery. (Cancer cells are more likely to be hidden in the nipple if the breast tumor is larger or close to the nipple, which means there is a higher risk the cancer will come back if the nipple is not removed.) Some doctors give the nipple tissue a dose of radiation during or after the surgery to try to reduce the risk of the cancer coming back. In areola-sparing mastectomy, the nipple itself, including its ducts, may be removed while the circle of tissue around it is kept.

Nipple-sparing operations have some problems. Afterward, the nipple does not have a good blood supply, so sometimes it can wither away or become deformed. Because the nerves are also cut, there’s little or no feeling in the nipple. In some cases, the nipple may look out of place later, mostly in women with larger breasts. Doctors are working to improve the safety and outcomes of nipple-sparing surgeries.

Saving the nipple from the breast that has been removed to use it later (called nipple saving or nipple banking) is no longer favored by most surgeons. The tissue can be injured by the way it’s stored or preserved, and there have been other problems with this surgery. A few researchers are still trying different ways to make this work, but the methods are not ready for general use.

**Choosing your plastic surgeon for breast reconstruction**

Once you decide to have breast reconstruction, you’ll need to find an experienced board-certified plastic surgeon. Your breast surgeon can suggest doctors for you.
To find out if a plastic surgeon is board certified, contact the American Society of Plastic Surgeons (ASPS). This organization has a Plastic Surgery Information Service that provides a list of ASPS members in a caller’s area who are certified by the American Board of Plastic Surgery. You can find contact information in the “To learn more” section near the end of this document.

**Questions to ask your plastic surgeon**

It’s very important to get all of your questions answered by your plastic surgeon before having breast reconstruction. If you don’t understand something, ask your surgeon about it. Here’s a list of questions to get you started. Write down other questions as you think of them.

You might want to take notes or record your talks with your surgeons. Some people bring their partner or a friend with them to the doctor to help remember what was said and to help ask other questions. The answers to these questions may help you make your decisions.

- Can I have breast reconstruction?
- When can I have reconstruction done?
- What types of reconstruction could I have?
- What’s the average cost of each type? Will my insurance cover them?
- What type of reconstruction do you think would be best for me? Why?
- How many of these procedures have you (plastic surgeon) done?
- What results can I expect?
- Will the reconstructed breast match my other breast?
- How will my reconstructed breast feel to the touch?
- Will I have any feeling in my reconstructed breast?
- What possible problems should I know about?
- Will there be pain, scars, or other changes in the parts of my body the tissue is taken from (if using a tissue flap)?
- How much discomfort or pain will I feel?
- How long will I be in the hospital?
- Will I need blood transfusions?
- How long will it take me to recover?
- What will I need to do at home to care for my incisions (surgical wounds)?
- Will I have a drain (tube that lets fluid out of the wound) when I go home?
- How much help will I need at home to take care of my drain and wound?
- Will I be taught exercises to do after surgery? When can I start them?
• How much activity can I do at home?
• What do I do if my arm swells? (This is called lymphedema.)
• When will I be able to go back to normal activities such as driving and working?
• Can I talk with other women who have had the same surgery?
• Will reconstruction interfere with chemotherapy?
• Will reconstruction interfere with radiation therapy?
• How long will the implant last?
• What kinds of changes to the breast can I expect over time?
• How will aging affect the reconstructed breast?
• What happens if I gain or lose weight?
• Are there any new reconstruction options that I should know about, including clinical trials?

It’s common to get a second opinion before having surgery. Breast reconstruction and even mastectomy are not emergencies. It’s more important for you to make the right decisions based on complete information than to act quickly before you know all your options.

**Before breast reconstruction surgery**

**Planning your surgery**

You can start talking about reconstruction as soon as you know you have breast cancer. You’ll want your breast surgeon and your plastic surgeon to work together to come up with the best plan for your reconstruction.

After reviewing your medical history and overall health, your surgeon will explain which reconstructive options are best for you based on your age, health, body type, lifestyle, and goals. Talk with your surgeon openly about what you expect. Be sure to voice any concerns and priorities you have for the reconstruction, and find a surgeon that you feel comfortable with. Your surgeon should explain the limits, risks, and benefits of each option.

Breast reconstruction after a mastectomy can make you feel better about how you look and renew your self-confidence. But keep in mind that the reconstructed breast will not be a perfect match or substitute for your natural breast. If tissue from your tummy, shoulder, or buttocks will be used, those areas will also look different after surgery. Talk with your surgeon about surgical scars and changes in shape or contour. Ask where they will be, and how they will look and feel after they heal.

If you would like to talk with someone who has had your type of surgery, ask about our Reach To Recovery program. Reach To Recovery volunteers are trained to support people facing breast cancer, as well as those who have surgery, chemotherapy, radiation therapy, and who are thinking about breast reconstruction. Ask your doctor or nurse to refer you to a volunteer in your area, or call us at 1-800-227-2345.
Your surgeon (or other doctors involved) should explain the details of your surgery, including:

- The drugs (anesthesia) that will be used to make you sleep and not feel pain during the surgery
- Where the surgery will be done
- What to expect after surgery
- The plan for follow-up
- Costs

Health insurance policies often cover most or all of the cost of reconstruction after a mastectomy, but this might not always be the case for reconstruction after breast-conserving surgery or lumpectomy. Check your policy to make sure you are covered, and find out what your co-pay might be (that is, what portion of the bill you’ll be expected to pay out of pocket). Also, see if there are any limits on what types of reconstruction are covered.

Make sure your insurance company will not deny breast reconstruction costs. Your surgeon may be able to help you with this if your insurance plan wants to deny coverage, so be sure to ask. It may take some time and effort, because, in the past, health plans have denied coverage for certain reconstruction procedures despite federal laws that require coverage in most cases. They often reverse such decisions on appeal. For more information on this and other insurance issues, see our documents called Women’s Health and Cancer Rights Act, and Health Insurance and Financial Assistance for the Patient With Cancer.

Getting ready for surgery

Your breast surgeon and your plastic surgeon should give you clear instructions on how to prepare for surgery. These will probably include:

- Help with quitting smoking
- Instructions to take or avoid certain vitamins, medicines, and supplements for a period of time before your surgery
- Guidelines on eating and drinking before surgery

Plan to have someone take you home after your surgery or your stay in the hospital. You may also need them to stay and help you out for a few days.

Where your surgery will be done

Breast reconstruction often means having more than one operation. The first creates the breast mound. This may be done at the same time as the mastectomy or later on. It’s usually done in a hospital.

Follow-up procedures, such as filling expanders or creating the nipple and areola, may also be done in the hospital or in an outpatient facility. This decision depends on how much surgery is needed and what your surgeon prefers, so you’ll need to ask about this.
What kinds of anesthesia are used?

The first stage of reconstruction is almost always done using general anesthesia. This means you’ll be given drugs to make you sleep and not feel pain during the surgery.

Follow-up procedures may only need local anesthesia. This means that only the area the doctor is working on will be made numb. A drug called a sedative may also be used to make you feel relaxed but awake. You might feel some discomfort.

Possible risks

Almost any woman who must have her breast removed because of cancer can have reconstructive surgery. Certain risks go along with any surgery, and reconstruction may have certain unique problems for some people.

Some risks of reconstruction surgery are:

- Bleeding
- Fluid build-up in the breast or the donor site, with swelling and pain
- Growth of scar tissue
- Infection
- Tissue death of all or part of the flap, skin, or fat (This is called necrosis.)
- Problems at the donor site, which can happen right away and/or later on
- Loss of or changes in nipple and breast sensation
- Extreme tiredness (fatigue)
- The need for more surgery to fix problems that come up
- Changes in the arm on the same side as the reconstructed breast
- Problems with the drugs (anesthesia)

Risks of smoking

Using tobacco tightens (constricts) the blood vessels and reduces the supply of nutrients and oxygen to tissues. As with any surgery, smoking can delay healing. This can cause more noticeable scars and a longer recovery time. Sometimes these problems are bad enough that a second operation is needed to fix them. You may be asked to quit smoking a few weeks or months before surgery to reduce these risks. This can be hard to do, so ask your doctor for help.

Risks of infection

Infection can happen with any surgery, most often in the first 2 weeks after surgery. If an implant has been placed, it might have to be removed until the infection clears. A new implant can be put in later. If you have a tissue flap, surgery may be needed to clean the wound.
Risks of capsular contracture

The most common problem with breast implants is capsular contracture. The scar (or capsule) around the implant tightens and starts to squeeze the soft implant. It can make the breast feel very hard. Capsular contracture can be treated. Sometimes surgery can remove the scar tissue, or the implant may be removed or replaced.

After breast reconstruction surgery

What to expect

You’re likely to feel tired and sore for a week or 2 after implant surgery, and longer after flap procedures (which will leave you with 2 surgical wounds). Your doctor will give you medicines to control pain and other discomfort.

Depending on the type of surgery, you should go home from the hospital in 1 to 6 days. You may be discharged with one or more drains in place. A drain is a small tube that’s put in the wound to remove extra fluid from the surgery site while it heals. In most cases, fluid drains into a little hollow ball that you’ll learn to empty before you leave the hospital. Follow your doctor’s instructions on wound and drain care. Also be sure to ask what kind of support garments you should wear. If you have any concerns or questions, call your doctor.

Getting back to normal

You should be up and around in 6 to 8 weeks. If implants are used without flaps, your recovery time may be shorter. Some things to keep in mind:

- Reconstruction does not restore normal feeling to your breast, but some feeling may return over a period of years.

- It may take up to about 8 weeks for bruising and swelling to go away. Try to be patient as you wait to see the final result.

- It may take as long as 1 to 2 years for tissues to heal and scars to fade, but the scars never totally go away.

- Ask when you can go back to wearing regular bras. Talk with your surgeon about the type of bra to wear – sometimes it will depend on the type of surgery you had. After you heal, underwires and lace might feel uncomfortable if they press on scars or rub your skin.

- Follow your surgeon’s advice on when to begin stretching exercises and normal activities, because it’s different with different types of reconstruction. As a rule, you’ll want to avoid any overhead lifting, strenuous sports, and some sexual activities for 4 to 6 weeks after reconstruction. Check with your surgeon for specific guidance.

- Women who have reconstruction months or years after a mastectomy go through a period of emotional adjustment once they’ve had their breast reconstructed. Just as it takes time to get used to the loss of a breast, it takes time to start thinking of the reconstructed breast as your own. Talking with other women who have had breast reconstruction might be helpful. Talking
with a mental health professional might also help you sort out anxiety and other distressing feelings.

- Silicone gel implants may open up or leak inside the body without causing symptoms. Surgeons usually recommend regular magnetic resonance imaging (MRI) of implants to make sure they aren’t leaking. (This isn’t needed with saline implants.) You’ll likely have your first MRI 1 to 3 years after your implant surgery and every 2 years from then on, although it may vary by implant. Your insurance might not cover this. Be sure to talk to your doctor about long-term follow-up.

- Call your doctor right away if you notice any new skin changes, swelling, lumps, pain, or fluid from the breast, armpit, or flap donor site, or if you have other symptoms that concern you.

For more information on coping after cancer, see our documents called *After Diagnosis: A Guide for Patients and Families* and *Sexuality for the Woman With Cancer*. They are available on our website, www.cancer.org, or you can have copies sent to you by calling 1-800-227-2345.

### Can breast reconstruction hide cancer, or make it come back?

Studies show that reconstruction does not make breast cancer come back. If the cancer does come back, reconstructed breasts should not cause problems with chemotherapy or radiation treatment.

If you are thinking about breast reconstruction, either with an implant or flap, you need to know that reconstruction rarely, if ever, hides a return of breast cancer. You should not consider this a big risk when deciding to have breast reconstruction after mastectomy.

As of early 2011, the US Food and Drug Administration (FDA) shared concerns that breast implants may be linked to a few cases of a rare kind of cancer, known as *ALK1-negative anaplastic large cell lymphoma (ALCL)*. This concern is mainly based on some case reports and a single observational study. Other studies so far have not shown any significant link. ALCL has been noted between 1 and 23 years after implants, and usually responds well to treatment. It can show up as a lump or as a collection of fluid near the implant. More careful studies are needed to find out what link, if any, there is between this rare cancer and breast implants.

### Talk to your doctors about mammograms

It’s important to have regular mammograms on your other breast. If your reconstruction uses an implant, be sure to get your mammograms done at a facility with technologists trained in moving the implant to get the best possible images of the rest of the breast. Pictures can sometimes be impaired by implants, more so by silicone than saline-filled. Be sure your technologist knows about your implants before starting the mammogram.

Mammograms can be done with tissue flap breast reconstructions although they are generally not needed after a full mastectomy. Reconstructed breasts can look fatty, and surgical clips and scars may show up on the mammogram. Still, breast changes or abnormalities can be seen. Talk to your plastic surgeon and oncologist about this.
Our Reach To Recovery program

Reach To Recovery is an American Cancer Society volunteer visitation program. Breast cancer survivors are trained to respond to you and your family’s concerns when you face the diagnosis, treatment, and effects of breast cancer.

In many locations, trained Reach To Recovery volunteer visitors who have had breast reconstruction can visit with you if you are thinking about this type of surgery. These visits are always free of charge.

To request a Reach To Recovery visit, ask your doctor or nurse for a referral, call us, or use the “Contact Us” button at www.cancer.org.

Glossary

Acellular: having no cells, or having had cells removed. Some tissue supports used in breast reconstruction are human or animal tissues which have had the cells removed to reduce the risk of infection or rejection.

Anaplastic large cell lymphoma or ALCL: a rare type of non-Hodgkin lymphoma that might be slightly more common in women who have breast implants. ALCL is not cancer of the breast tissue, but develops in the scar capsule next to the implant.

Anesthesia: the loss of feeling or sensation caused by drugs or gases. General anesthesia puts you into a deep sleep. Local or regional anesthesia numbs only a certain area. Some operations use both.

Areola: the darker area around the nipple of the breast.

Breast conservation surgery: surgery to remove a breast cancer and a small area of normal tissue around the cancer without removing any other part of the breast. The lymph nodes under the arm may be removed, and radiation therapy is often given after the surgery. This method is also called lumpectomy, segmental excision, limited breast surgery, or partial or segmental mastectomy.

Breast implant: a sac used to increase breast size or restore the shape of a breast after mastectomy or partial mastectomy. The sac is filled with sterile salt water (saline) or silicone gel (which can be very thick to nearly solid.)

Breast reconstruction: surgery that rebuilds the breast contour or shape after mastectomy. A breast implant or the woman’s own tissue is used. If desired, the nipple and areola may also be recreated. Reconstruction can be done at the time of mastectomy or any time later.

Capsular contracture: scar tissue that forms around the implant and squeezes it. There are 4 grades of contracture (Grades I - IV) that range from normal and soft to hard, painful, and distorted.

Clinical trials: studies of new treatments in patients. They are only done when there’s reason to believe that the treatment being studied may be of value to patients.

Delayed-immediate reconstruction: see two-stage reconstruction
Delayed reconstruction: reconstructive surgery that’s done later, not at the time of the mastectomy.

DIEP (deep inferior epigastric perforator, sometimes called deep inferior epigastric artery perforator) flap: a type of flap procedure that uses fat and skin from the lower tummy wall, but does not use the muscle to form the breast mound.

Free flap: in this kind of surgery the tissue for reconstruction is removed entirely from one area of the body and the blood and nerve supplies are surgically reattached to the chest with microsurgery.

Gluteal free flap or GAP flap: a type of flap procedure that uses tissue and gluteal muscle from the buttocks to create the breast shape. This is a free-flap procedure and requires microsurgery.

General anesthesia: drugs or gases that put you into a deep sleep.

Immediate reconstruction: see one-stage immediate breast reconstruction

Latissimus dorsi flap: this procedure tunnels muscle, fat, and skin from the upper back to the chest to create a breast mound.

Local anesthesia: using drugs to numb only the part of the body undergoing a procedure or surgery so that a patient is more comfortable; the patient generally stays awake.

Lumpectomy: surgery that removes only the breast lump and a rim (margin) of normal tissue around it.

Mastectomy: surgical removal of the breast, and sometimes other tissue. See also segmental mastectomy.

Microsurgery or microvascular surgery: a procedure that uses microscopes and fine surgical instruments to reattach blood vessels and nerves to tissues that have been taken from another area.

Necrosis: cell and tissue death from lack of blood supply to the tissue.

Nipple-sparing mastectomy: procedure that allows the nipple, areola, and much of the breast skin to be preserved during mastectomy to make reconstruction easier. It’s mostly used in patients with small, early-stage breast cancer that’s not near the nipple. A one-time dose of radiation is sometimes used on the nipple tissue to reduce the risk of hidden cancer cells.

One-stage immediate breast reconstruction (also called immediate reconstruction): reconstructive surgery that’s done at the same time as the mastectomy.

Pedicle flap: tissue that’s mostly removed from the donor site, but the blood vessels remain attached and are tunneled from the original site to the area where the tissue is to be attached.

Prosthesis: man-made body part to substitute for one that has been removed, such as an external breast form to fill out a bra cup.

Saline-filled implant: has a silicone shell and is filled with sterile salt water (saline).

Segmental mastectomy (also called partial mastectomy or quadrantectomy): surgery that removes more breast tissue than a lumpectomy; may remove up to one-quarter of the breast.

Silicone filled implants: breast implants filled with an inert, man-made polymer in gel form. Because of its flexibility, strength, and texture, it feels much like the natural breast. Silicone gel
breast implants are now available for women who have had breast cancer surgery, but extra follow-up is needed to watch for possible rupture or leak from the implant.

**Tissue expander**: implanted balloons under the skin and pectoral muscle that are used to keep living tissues under tension. This forms new cells and stretches the tissue. The surgeon puts the expander beneath the skin, and over weeks or months, injects a saline solution to slowly expand the overlying skin to make space for an implant.

**Tissue flap reconstruction**: tissue for reconstruction that’s surgically removed from another area of the body. It can be a pedicle (left attached to its base and then tunneled) or free flap (cut free from its base and transplanted to the chest).

**Transverse rectus abdominis muscle (TRAM) flap**: a procedure that uses tissue and muscle from the lower tummy wall to reconstruct a breast mound. It can be a pedicle (left attached to its base and then tunneled) or free flap (cut free from its base and transplanted to the chest).

**Transverse upper gracilis (TUG) flap or inner thigh flap**: surgery that uses muscle and fatty tissue from along the bottom fold of the buttock extending to the inner thigh to rebuild the breast shape. This is a free-flap procedure and requires microsurgery.

**Two-stage reconstruction** or **two-stage delayed reconstruction**: a two-step procedure that’s done if your skin and chest wall tissues are tight and flat. A tissue expander is placed beneath the skin and chest muscle. It’s like a balloon that’s slowly filled with saline over time. It’s surgically replaced with an implant when it expands to full size. This is sometimes called a delayed-immediate reconstruction, because the expander can be placed when the mastectomy is done, but filling it can be delayed until radiation or other treatment is completed.

### To learn more

**More information from your American Cancer Society**

Here is more information you might find helpful. You also can order free copies of our documents from our toll-free number, 1-800-227-2345, or read them on our website, [www.cancer.org](http://www.cancer.org).

**Learning more about breast cancer**

Breast Cancer (also in Spanish)

Breast Cancer Dictionary (booklet; also in Spanish)

Lymphedema: What Every Woman With Breast Cancer Should Know (also in Spanish)

**Coping with cancer and its treatment**

After Diagnosis: A Guide for Patients and Families (also in Spanish)

Exercises After Breast Surgery (also in Spanish)

Breast Cancer Prostheses and Hair Loss Accessories List

Sexuality for the Woman With Cancer (also in Spanish)
Job, legal, and insurance information

Women’s Health and Cancer Rights Act
Health Insurance and Financial Assistance for the Patient With Cancer
Americans with Disabilities Act
Family and Medical Leave Act

Breast cancer testing and early detection

Breast Cancer: Early Detection (also in Spanish)
Mammograms and Other Breast Imaging Procedures

Books

Your American Cancer Society also has books that you might find helpful. Call us at 1-800-227-2345 or visit our bookstore online at cancer.org/bookstore to find out about costs or to place an order.

National organizations and websites*

Along with the American Cancer Society, other sources of information and support include:

**BreastReconstruction.org**
Website: http://breastreconstruction.org

Online information includes pictures and illustrations detailing the breast reconstruction process, includes personal stories from women who’ve been through it

**American Society of Plastic Surgeons (ASPS)**
Website: www.plasticsurgery.org

For information about breast reconstruction, tips on getting ready for surgery, and referrals to board-certified plastic surgeons

**Food and Drug Administration Consumer Information Line**
Toll-free number: 1-888-463-6332 (1-888-INFO-FDA)
Website: www.fda.gov
Website for information on breast implants:
www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/ImplantsandProsthetics/BreastImplants/default.htm

Information on breast implants, with links to detailed research on each type of implant

**National Cancer Institute**
Toll-free number: 1-800-422-6237 (1-800-4-CANCER)
TTY: 1-800-332-8615
Website: www.cancer.gov
Up-to-date cancer information, as well as free support to quit smoking (at the tobacco line, 1-877-448-7848, or the direct website www.smokefree.gov)

**SHARE: Self-Help for Women with Breast or Ovarian Cancer**
Toll-free number: 1-844-275-7427
Website: www.sharecancersupport.org

Offers support and information for breast or ovarian cancer survivors

*Inclusion on this list does not imply endorsement by the American Cancer Society.*

No matter who you are, we can help. Contact us anytime, day or night, for information and support. Call us at **1-800-227-2345** or visit www.cancer.org.

**References**


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