

A Discussion about Breast Reconstruction with Tissue Expanders

The most important thing for you to realize, whether you decide to have any breast reconstruction **at all**, is that you have choices. You will choose **whether** or not you are going to have a reconstruction, and most women have a choice of **what type** of reconstruction. You can also choose a reconstruction to be done later, after a mastectomy, although the results are not as attractive in general. I think this choice itself is a very important factor for a woman in terms of regaining control of her life after being told she has breast cancer.

The second thing to remember is that unfortunately, although most breast reconstruction results are good, there is nothing that I can do to give you back your lost breast in any real way. You are not likely to forget that you had to go through the trauma of a mastectomy and a reconstruction. However, a reconstruction can help to simplify your life in terms of clothing, bathing suits, bras, exercise and body image.

A tissue expander is basically a partially-deflated, temporary implant which is placed underneath the muscles of the chest wall. This can be done either at the time of the mastectomy, three months or many years later depending on the patient. Associated with the implant is a valve, which is on top of the implant. This valve is under the surface of the skin. The implant is placed under the muscle to protect it from infection and from being easily felt beneath the skin, and also because a recurrence would be above the muscle and the implant would not, therefore, interfere with its detection. Once the skin has healed enough (about 1-2 weeks), the expansion process can begin. This will involve anywhere from 1-4 sessions in which the skin over the valve is injected with a small needle and a certain amount of injectable saline is placed in the tissue expander. Each woman is different; therefore, each patient may have a different amount of saline injected. In general, the injection process is not a painful one, although there may be a sensation of tightness for a day or so following the injection. I do try to have my patients take one antibiotic pill about an hour prior to their tissue expander injections, and I will supply you with these.

The first phase of breast reconstruction using tissue expanders is this stretching of the skin – expansion. Tissue expansion is very much like pregnancy in that after pregnancy, most women find that they have new skin of their lower abdomen that they did not have before. The tissue expansion actually creates new skin for us to work with. The second stage is replacing the tissue expander with a permanent implant and enhancing the aesthetics of the reconstruction. During the second stage, minor adjustments will be made in terms of the placement of the implant(s) or definition of the fold underneath the breast(s). At the time of the replacement of the tissue expander, I may also liposuction the side of your chest if necessary or do some fat grafting to make your reconstruction look softer and smoother. Breast reconstruction with tissue expanders is almost always a

staged procedure. Occasionally, a patient may not elect to switch out the tissue expander for a permanent implant if it looks good, but the expander has a somewhat higher rate of deflation long-term as compared to a permanent implant and is more uncomfortable than the implant.

Very occasionally we may elect to bypass the expander stage and go straight to an implant. This is only possible in small-breasted women who want to stay small for reasons of blood supply. It is riskier than using a tissue expander because I cannot deflate the implant if I am worried about pressure on the skin. In reality, most patients need the second stage to adjust the symmetry or for the added benefit of fat grafting, so I use this technique in a small number of patients each year.

A procedure on the other breast may also be performed at the first or the second stage to help give symmetry with the reconstructed breast. This procedure may be a breast lift, a breast reduction or a breast augmentation depending on the anatomy of the patient. By federal law, insurance must cover the necessary procedures on **both** breasts.

The **advantage** of reconstruction with tissue expanders is that although this is a staged procedure, each stage is relatively short with a fairly brief recovery and less pain than a TRAM flap or latissimus flap. The first operation takes 45 minutes to an hour, and the second operation is about the same or less. A nipple reconstruction takes about 45 minutes. Another advantage is that the blood loss for each procedure is relatively small. Also, there are no additional scars on the body with this operation other than the original mastectomy scar.

The **disadvantages** of the procedure are that it is a staged procedure (two or more operations) and that although the size and shape of your reconstructed breast is not likely to change very much, your normal breast will continue to change size and shape, especially if you gain or lose weight. A reconstructed breast by an implant is never perfectly symmetrical with the normal breast. However, in a bra, the difference should be unnoticeable, even in the long term. This is why a bilateral implant mastectomy reconstruction can sometimes look better than a unilateral reconstruction.

Infection is a possibility after any surgery. The risk of infection after breast reconstruction with implants would be about 1%. Nonetheless, this is a serious problem because should a significant infection occur with an implant, often this cannot be cured with antibiotics alone, and the implant would have to be removed temporarily. In addition, there is a small risk of infection in your breast long-term should you develop an infection elsewhere in your body. For this reason, you will need to take antibiotics before any kind of minor surgery, dental surgery, colonoscopy or any other procedure which might send bacteria into the blood stream. Because of the mastectomy, you may accumulate fluid (a seroma). This is the fluid that normally comes through the drain. Usually, the body absorbs this, but occasionally this fluid will need to be drained in the office.

There are certain risks that are unique to implantable devices. The body reacts to a foreign material by placing scar tissue around it. This is similar to an oyster which, in response to chronic irritation, makes a pearl around a grain of sand. This scar tissue or “capsule” can either be a thin, soft, unnoticeable layer, or in the extreme, this can be a firm layer of scar tissue around an implant that can be uncomfortable or even change the shape of the reconstruction. Should this occur, additional surgery may be necessary to remove the scar tissue and replace the implant. The risk of capsular contraction is unpredictable because it depends on each patient’s healing capabilities. Smokers heal poorly in terms of infection and wound breakdown. **You are advised not to smoke for at least 1 month before and after surgery.**

Obviously, any device can have a mechanical failure. An implant may rupture. The deflation rate is probably around 5%, and this can be from trauma (rarely) or normal wear and tear. If it should rupture, it can be replaced. Luckily, after your mastectomy and reconstruction, you will never need a mammogram on that side again, and this is one of the most common causes of implant rupture. The implants that I usually use are either saline filled with a solid, silastic shell, or silicone gel. Silicone gel implants tend to feel more natural, but if they rupture, they tend to cause a bad encapsulation. There is less “rippling” visible with silicone gel implants. However, a slender woman with little fat and a thorough mastectomy (which will leave very thin skin flaps) will almost always feel the edge of her implant on the side of her breast, silicone or saline. The new silicone gel implants have a much stronger shell and much less liquid “cohesive” silicone which should be less likely to spill. I can show you the difference between the new and old implants in the office. Saline gives me more flexibility on choosing a volume. I can put a range of saline volumes in any given implant and stay within the manufacturer’s recommendations. Therefore, if asymmetry is an issue, I may prefer saline for volume flexibility. The bottom line is that there is no perfect prosthesis, and you should choose one in your comfort zone.

I need to caution you that radiation therapy either before or after implant surgery is likely to cause marked scar tissue formation (encapsulation) around an implant (greater than 50%). It also predisposes you to wound-healing issues, infection and implant loss. For this reason, an implant is not usually the first choice reconstruction for these patients unless some other reason makes another kind of reconstruction undesirable. Statistically, the patients most likely to have complications after reconstruction are significantly overweight, have large breasts which often require complex incisions, have high blood pressure, are diabetic, smoke or have been radiated.

I hope this information has not been overwhelming. I have tried to give you as complete information as possible so that you can make an informed decision. Nonetheless, I would like to emphasize that the vast majority of patients are glad they had an implant reconstruction and are quite satisfied with their results.

It will be a pleasure to discuss breast reconstruction with tissue expanders with you. Please do not hesitate to call the office if you have any questions (804-320-8545).