



## **BREAST IMPLANTS (enlargement, augmentation)**

**Dr. Benjamin Van Raalte** has 20 years of experience with breast enlargement including axillary incisions and gel implants. Dr. Van Raalte is the first Quad City member of the American Society for Aesthetic Surgery and is board certified by the American Board of Plastic Surgery. He has had experience with hundreds of breast implant surgeries including saline and gel implants, teardrop and round styles, and armpit and infra-mammary incisions.

A patient presenting to our office for a breast enlargement consultation has already made the decision that she is very interested in the procedure. It is our desire and responsibility to discuss the various options and risks of breast augmentation fully. We offer the patient the opportunity to meet with us at least twice to discuss these options and fully answer their questions and make the best decision for them.

The implants currently in use today are saline implants with a silicone shell, and silicone gel implants. The implants may be placed over the muscle (sub-glandular), under the chest muscle (subpectoral), or biplanar (the top of the implant covered by muscle). Different incisions may be made in the nipple (peri-areolar), underneath the breast (infra-mammary), through the armpit (axillary), or the umbilicus (navel). The different shapes of implants include saline and gel, round, high-profile, teardrop-shaped, and post-operatively adjustable implants. If the breast has ptosis, or droop, or other shape problems this may require a lift, special implants, or other considerations. We will explain these options.

### **TYPES OF IMPLANTS**

There are saline and silicone gel implants. Iowa Plastic Surgery uses the best implant to fit your desires, your body type and your chest width. It quite often is the width and style of the implant that is more important than the size or volume of the implant for your best result. Differences in volume usually change the width more than the projection. A different style of implant may give more or less of a cup size than the volume.

The **saline** implants used today have a silicone shell. They are called saline implants because they are inflated in the patient with saline solution. Should they deflate, saline is physiologic with blood and would be absorbed by the body and the implant would go flat. The different types of saline implants include round, low or high profile, anatomic, and expandable implants. The implants can be smooth or textured, and all of the shaped implants have a textured or rougher surface to avoid turning.

The **round implants** may be smooth or textured. Round implants are the most common and are used if you have little or no droop and planning a moderate size increase. The smooth surfaced implants will drop into position faster. The textured implants have a rough surface, and thus hold onto their position, which sometimes is needed. The **high profiles** are round implants that are narrower and provide more projection with less volume in a narrow chested female. A **low profile** implant, is as its name implies has a lower projection, and a good choice for someone who is concerned about being too large. The anatomic or teardrop **shaped** implants seem to correct mild to moderate droop better, are somewhat more natural looking. They do have less superior cleavage. The **expandable** implants allow more fluid

to be injected in a later date if the patient desires to become larger. They are also useful when the patient wants to become extremely large or larger than the tight skin envelope will allow. The fluid can be injected at several visits to stretch the skin out to a more acceptable size. There is a fill port located under the skin, which will have to be removed later, and these implants do cost considerably more.

**Gel implants** are now available again in the United States. They have been available in Europe continuously. Some people feel the gel implants have a softer or more natural feel. They cannot deflate but can rupture instead. They do have less rippling than saline implants that can be a problem for thinner women. The current gel implants are a round type. Eventually there will be a cohesive gel, or “gummy bear” gel implant available that may be shaped and have a thicker gel. These can literally be cut like a pie and not change in shape.

Different style implants have different prices. Patients have been requesting larger implant sizes than previously. We now see patients that wish they had chosen larger implants, but as a tradeoff, more patients may have problems with the shape of their breasts. Sometimes there may be a compromise between the two, or the expandable implants may be the answer. We will help you choose the appropriate size that you desire and is right for your frame and body.

### **IMPLANT PLACEMENT: SUBGLANDULAR, SUBMUSCULAR OR BIPLANAR**

The breast implants have several options for placement. They can be put under the muscle or under the breast tissue (over the muscle). Generally, we recommend them to be placed **under the muscle** so that better quality mammograms may be obtained. If the surface of the implant has creases or ripples, these will be less visible when the implant is under the muscle. Muscle does not cover the entire implant, generally the upper two thirds. In addition, if the implants become firm, this may be less noticeable under the muscle. There is more of a covering over the implant when the implants are placed under the muscle, rather than just a thin layer of breast tissue. The disadvantages to placing them under muscle include: more postoperative pain for the first 48 hours, and a longer time for the implants to settle.

When the implants are placed under the muscle and because the muscle attaches to the breastbone (sternum), there can be a gap in the cleavage. If you start with more cleavage, and have narrow breastbone, this will not be noticeable. Placing the implants under the muscle detaches only a few of the muscle fibers that insert into the ribs. It does not detach the majority of the muscle that goes from the clavicle to the sternum and should not affect the strength of the muscle. When placing them under the muscle is much preferable to undergo general anesthesia.

Implants can be placed under the breast tissue (**above the muscle**). This may be preferable in some cases when there is droop or an unusual shape to the chest. The implants may be more noticeable and mammograms may be more difficult to obtain. Many physicians feel the rates of them becoming firm are significantly higher. There also is less pain and this can be done under local anesthesia with an incision underneath the breast.

The implants can be placed partially under the muscle (**biplanar**), with the top part covered by muscle, and the lower portion underneath the breast. This allows the implant to fill up more droop or deflation after pregnancy. This biplanar placement is done with the infra-mammary incision and can correct more droop without a breast lift when combined with a shaped implant. It is a natural mature looking breast but avoids the extra incisions of a lift.

### **INCISIONS**

Incisions can be placed around the nipple, underneath the breasts, or through the armpit. The around the nipple incision may be used in conjunction with a breast lift. Under the breast incision is the easiest for the surgeon to perform and also may be used if there are shape problems or if the implants are to be placed above the muscle. Both these incisions do leave a scar on the breast. A third option is to

place a small (usually ¼ of an inch) scar inside the armpit. We find this fades the best of the three incisions and is the least visible and leaves no scar on the breast. Some implants can be placed through an incision in the navel, however the disadvantage to this approach we believe far out way its advantages.

NOTE THE NEARLY INVISIBLE SCARS IN THE AXILLA (ARMPIT)



## RISKS

The risks of implants can be largely divided into two classes. Those related to having a surgical procedure and those related to implants.

Those related to any surgical procedure include scars, hematomas (bleeding), infections, numbness, asymmetry or poor results. Any of these complications can result in additional costs to you as a patient. There can be additional facility, anesthesia or implant costs. We do not charge a surgeon's fee to take care of complication in the first three months, when they are corrected by us.

**Hematoma** is bleeding that occurs underneath the muscle. It is generally not life threatening, but would result in a severe swelling of the breasts and require a return trip to the operating room to wash out the blood. This occurs in 1% of the operations. **Infections** also occur in 1% of the operations. Bacteria live on our skin and despite careful cleansing and antibiotics, infections can occur. Unfortunately, when an implant becomes infected it acts as a foreign body and generally the implant has to be removed for the infection to resolve. The implant is left out for approximately three months before a new one is inserted. Bleeding and infection may result in additional facility, anesthesia, and implant fees (there is no additional surgeon's fee). Smoking increases the risk of infection due to healing complications. These complications seem to occur less often when the implant is placed through the armpit incision.

**Scars** occur with any operation and take time to fade, and rarely patients will form hypertrophic or ugly scars.

**Asymmetry** (unequal size or shape) occurs in 2% to 4% of patients. Minor asymmetry occurs more frequently than that. Many patients are asymmetric before surgery and one nipple or fold of the breast is in a higher or lower position than the other, and this cannot always be corrected. Sometimes this is not as noticeable until the breast has been enlarged. One breast may have tighter or looser skin than the other side, and this affects the position of the implant. One side of the chest may be wider, or the breast shaped differently which also will remain different and not changed by implants. However, the implant may heal in a higher or lower position on one side or the other. Some of this asymmetry

can be corrected postoperatively by either wearing a bra or a breast band that either pushes one or both the implants down. Many times after placement of the implants under the muscle the muscle will go into a spasm in the first several days, pulling the implants into a higher position. About 2% of the time it requires another procedure to correct.

The operation may also result in changes in sensation in the breast or nipple, including **numbness** 1% of the time.

The risks of implants also include **deflation or rupture** of the implants, **capsular contracture** around the implants, and perhaps more difficulties with mammograms. First of all, the breast implants do not cause breast cancer. In fact, several studies have shown that women with breast implants have lower rates of breast cancer than non-implanted women. This is not to imply that breast implants have this beneficial affect but may show a relationship between statistics and actual cause and effect.

**Capsular contracture** or firmness of the implant is due to scar tissue around the implant. The body forms scar tissue after any operation. The body will put scar tissue around any implant. In the case of a hip or knee implant, this may benefit, as it helps hold it firmly in place. Unfortunately, in the case of a breast implant, this may make it feel too firm, hard, or unnatural. The current percentage of patients that form any capsular contracture is about a year. Thin patients without much scar tissue may see or feel **rippling** of the skin over the implant, usually in the lower portion not covered by muscle.

The saline implants can **deflate**. The implant moves with your body and since they have a silicone shell, this shell will also move multiple times and could develop a stress fracture. They can also be punctured. Routine activities will not cause deflation. The deflation rates are currently about 1% per year or less. It can happen the first year, ten years later, or never happen. There is no "life expectancy" of the implant.

Gel implants do not deflate, but they can **rupture**. The gel is thick and is enclosed by the scar tissue that forms around the implant. MRI examinations are recommended in the United States at 3 years and then every 2 years to look for rupture. The United States recommendation is to remove a ruptured gel implant and replace it when that occurs. You must be 22 years of age or older for a gel implant.

The implant might interfere with the quality of mammograms. Techniques that can be done to correct this include placing the implants under the muscle or obtaining an additional view on mammogram. If you have a strong family history of breast cancer, this should be discussed with the physician.

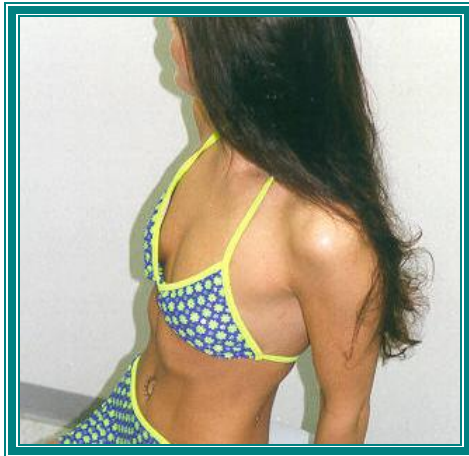
### **BREAST DROOP OR PTOSIS**

Other breast shape problems that have to be addressed include breast droop or ptosis, tubular breast deformity (the breast is more tube-shaped and based on a very narrow base), or an underformed breast where the inferior portion of the breast is very tiny compared to the superior part of the breast. Some of these methods are correctable with the implantation procedure alone, some require additional procedures, and some are not correctable. You cannot select your breast out of a catalog

and we are not adding material to the outside to sculpt a perfect breast, but placing an implant underneath your skin envelope. The final result depends on your skin, not the implant.

Correction for breast **droop** depends on the degree of droop. For mild degrees of droop, simple enlargement of the breasts maybe all that is needed. For greater degrees of droop, a shaped implant that is anatomically shaped like a teardrop may partially or totally correct the droop. Still, in these instances, afterwards you might still have droop that could require an additional lift operation. The greatest degree of droop is not correctable by either of these methods, and would require a breast lift to correct the droop. If you are happy with your breast size, the lift alone may be all that is needed. However, if you wished to enlarge the breasts significantly, an implant may be done at the same time as the lift. It might be better to do the lift and the implants as two separate operations for several reasons. The lift is trying to tighten the breast and the implants are expanding the breast and they compete. Sometimes the implants alone might correct the droop and the lift won't be needed. The increased complications of the two procedures together must be balanced against the cost of two separate procedures. A mature looking breast can be achieved with a mini-lift that uses a shaped implant and the scar is limited to just around the nipple. Full lifts require an incision around the nipple and vertical or T-shaped incision. The incision around the nipple alone draws up the skin in a draw string purse fashion and will take time to flatten and improve, and sometimes needs revision. You must quit smoking to have a breast lift due to the significantly higher risk of complications. Complications include scarring, revisions of the scars are common, changes in nipple sensation, and healing problems. Uncorrected droop would make you look good in a bra, but the appearance would not be as good nude

We have to advise patients that this operation may not be the only one you do and the implants do not necessarily last forever. Other medical devices do not last forever. Hopefully, the breast implants you have will not require any additional surgery in the future, but they may.



## OTHER CONCERNS

Another concern is whether breast implants cause health problems or immune diseases such as rheumatoid arthritis. Women with breast implants will get immune diseases and women without breast implants also have immune diseases. Studies have been published that do not show an increased risk of immune disease in women with implants. Silicone is used in many other medical devices.

In June 1999 the Institute of Medicine of the National Academies of Science released its final report after 2 years of investigation of more than 2000 peer-reviewed studies and 1200 data sets and reports. According to Stuart Bondurant MD, committee chair, there is "no definitive evidence linking breast implants to cancer, immunological diseases, neurological problems, or other systemic diseases. Women with breast implants are no more likely than other women to develop these illnesses. € From *Selected Readings in Plastic Surgery Volume 9, Number 28*

## THE BENEFITS OF IMPLANTATION

Patients wish to improve the way they look in clothes or a swimsuit. Others wish to regain the figure that they had before childbirth. In many patients, due to their current breast appearance, it is almost a reconstructive operation as they are trying to obtain a more normal breast shape or size. Most patients feel that their implants have been beneficial for them, and have improved how they feel about themselves. We do find that our happiest patients are those who do it for themselves.

Dr. Van Raalte has extensive experience with a large number of breast augmentations, including different incisions, different style of implants, and correction of breast droop with biplanar placement of shaped implants. We help you pick the optimal shape, style, or size implant rather than just volume alone. We offer all of the implant shapes and options and tailor that to your body frame. **We hope our experience can help you to obtain the best possible result!**

Benjamin A. Van Raalte, MD



ALL MODELS USED IN THIS BROCHURE HAD BREAST AUGMENTATION SURGERY BY DR. VAN RAALTE