

**BREAST AUGMENTATION  
INFORMATION BOOKLET  
2005**

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## **INTRODUCTION**

Thank you for contacting my office. The purpose of this booklet is to educate you more about the many options available to you because we believe that an informed patient has a better operative experience.

Please read this booklet thoroughly. If you plan to come in for a consultation, we ask that you read all this information first. Write down your questions. This preliminary education will make the consultation process more valuable to you.

Speaking for the entire staff of Aesthetic Plastic Surgery, LLC, we are honored that you are considering us for your plastic surgery needs. We appreciate your confidence in us. Thank you.

Sincerely,

Gene Sloan, M.D., F.A.C.S.

## **TABLE OF CONTENTS**

- INTRODUCTION
- BREAST AUGMENTATION OVERVIEW
- WHO IS A CANDIDATE FOR BREAST AUGMENTATION?
- BREAST ANATOMY
- BREAST CANCER CONSIDERATIONS
- IMPLANT LOCATION
- SCAR LOCATION
- IMPLANT TYPES
- NEW BREAST = IMPLANT + YOUR BREAST
- IMPLANTS AND LIFTS
- THE SURGICAL EXPERIENCE
- RECOVERY AND HEALING
- BENEFITS OF BREAST AUGMENTATION
- RISKS OF BREAST AUGMENTATION
- FINANCIAL ASPECTS OF SURGERY
- ALTERNATIVES TO BREAST AUGMENTATION

## **BREAST AUGMENTATION OVERVIEW**

Doctor Sloan's practice is limited to cosmetic surgery with special emphasis on breast augmentation. He has been in practice 11 years and has performed over 1,000 breast implant operations.

Recently we have been using the rapid recovery system developed by Dr. John Tebbetts. Nearly all our patients exhibit no bruising and their pain is controlled by non-narcotic analgesics. No bandages, drains, or special bras are used. Patients typically can shower, eat regular food, and leave the house the day of surgery. You may lift objects, drive, and resume normal activities within 48 hours of surgery even with implants beneath the muscle.

Doctor Sloan has experience with the many different options available in breast implant surgery. After informing you of the advantages and disadvantages of the different choices available, we will help you select from these options: incisions under the arm, under the breast, or around the nipple; smooth or textured implants; round or anatomic implants; low, medium, or high profile implants; implant location above or below the muscle; what size implant; and whether a lift is needed.

## **WHO IS A CANDIDATE FOR BREAST AUGMENTATION?**

Almost any healthy woman who wants to enhance her figure with breast implants may do so. There are a number of reasons why women seek breast augmentation. Many women never develop the size they desire. Other women will lose breast volume after pregnancy or weight loss and would like to have it restored. Some women will have a noticeable difference between the sizes of the two breasts and would like to have them made equal.

If you are considering breast augmentation it is important to determine whether you are ready to do so from three different standpoints: physical, emotional, and financial.

The first thing the doctor will do is assess your physical health. He will ask you about previous operations, previous hospitalizations, presence of chronic diseases, medications, allergies, smoking history, pregnancies, and mammograms. If you have a healthy heart and lungs you should tolerate anesthesia and surgery fine. However if you have severe chronic diseases such as uncontrolled diabetes or heart disease it would not be in your best interest to pursue breast implant surgery. There are a number of other diseases that may make you a poor candidate for surgery.

It is also important that you be emotionally ready for the stress of a surgical procedure and recovery. Cosmetic surgery generally should not be performed in close proximity to major life events such as a death of a loved one or your wedding. Also you need to make sure you are doing this for yourself and not because someone else wants you to do it. It is also best when you have the support of your family when seeking cosmetic surgery, especially during the recovery period.

An important aspect of breast augmentation that is rarely discussed is its financial impact over the course of your lifetime. The original operation that typically costs upwards of \$4000 is only a portion of the cost you will eventually sustain. If there are complications there will be additional costs early on. Even if there are no surgical complications one should anticipate future expenses as the implants are not likely to last you the rest of your life. Even if your implants last 15 years, a 20 year old patient would be looking at three or more additional operations during her lifetime. These costs should be taken into consideration when you are budgeting for your surgery.

## **BREAST ANATOMY**

During your consultation, the doctor will examine your breasts, take measurements and explain the procedure to you. It will be beneficial to you to understand some of the terminology regarding breast anatomy and function.

A girl's breast begins developing as early as age 9 and is usually complete by the age of 18. The shape changes with age and that shape is determined by the anatomy of the chest wall, the amount and quality of skin, the volume of fat and glandular tissues, as well as the effects of gravity, aging, hormonal, and environmental influences. The ideal shape is generally conical with breast volume in proportion to the woman's frame. On front

view the nipple sits an inch or more above the crease at the bottom of the breast. One third of the volume sits above the nipple and two thirds sits below the nipple. On side view the upper portion of the breast may be slightly convex, flat, or concave.

The breast has a vast network of blood vessels and nerves that essentially enter the breast from all sides. The circulation allows the breast to heal from the wide variety of successful operations that have been described for it. The nerves enable the breast to maintain variable degrees of sensitivity after surgery. The location of these at the periphery of the breast becomes an important consideration if one is choosing an implant that is wider than the patient's breast. As the dissection nears the periphery of the breast it is more likely to disrupt the blood vessels that can result in excessive bleeding, or injure nerves causing a decrease in sensation.

The quality and quantity of skin is an important factor in determining the final result after breast augmentation. Younger patients tend to have thicker, tighter skin with greater amounts of collagen and elastic fibers. As a woman ages the skin becomes thinner and less elastic. This is due to ageing, genetics, pregnancy, and environmental factors such as sun damage and smoking. As the amount of skin increases and the volume of the breast decreases the breast tends to sag more.

Underneath the breast skin is the glandular tissue and fat. In younger women there is typically more gland and less fat and the breast is firmer. With age the amount fat relative to breast gland increases and the breast becomes softer. Anatomy drawings typically show a solid cone of breast gland covered by a layer of fat. However in a real breast the glandular tissue is interspersed among the fat. An analogy is a chocolate chip cookie where the gland is the chip and the fat is the dough. Exiting from the glands are the lactiferous (milk) ducts that eventually converge and arrive at the nipple via multiple tiny openings. Because these ducts communicate to the outside they are also an entry point for bacteria. This is an important consideration in the development of infection and capsular contracture after breast augmentation.

The nipple areola complex is the area of skin and specialized structures at the center of the breast. The areola is the larger pigmented portion. The nipple is the raised central portion.

The inframammary fold or crease is the lower perimeter of the breast where it meets the chest wall. This is the fixed portion of the breast where it is attached to the chest wall. It can be moved very little surgically.

Several muscles make up the chest wall in the area of the breast. The most important one in breast augmentation surgery is the Pectoralis Major muscle. When a surgeon mentions putting implants "under the muscle" this is the one he is referring to. One end of this muscle attaches to the collarbone, breastbone, and ribs. The other end attaches to the upper arm. The free edge of this muscle can be felt just in front of the armpit.

## **BREAST CANCER CONSIDERATIONS**

In the United States the risk of a woman developing breast cancer during her lifetime is 1 in 8. At age 30 the risk is 1 in 2,212. At age 40 the risk is 1 in 235. At age 50 the risk is 1 in 54. It is important to understand the relationships between breast implants and breast cancer diagnosis and treatment.

### *INCIDENCE OF BREAST CANCER*

Published studies indicate that breast cancer is no more common in women with implants than in women without implants. In fact some studies show breast cancer is less common in women with breast implants.

### *PHYSICAL EXAM*

The presence of breast implants generally does not interfere with the detection of lumps on breast self exam.

### *MAMMOGRAPHY BEFORE IMPLANT SURGERY*

The doctor will recommend that you get a mammogram before surgery if you are 35 or older. If you have ever had a mammogram the doctor will want to see the most recent report. Mammograms are recommended every two years between the ages of 40 and 50 and annually after age 50. They may be required more frequently if there is a family history or other clinical indication.\*

### *BREAST IMPLANTS AND MAMMOGRAPHY*

Breast implants always interfere with mammography to some degree. Implants placed over the muscle interfere more than implants placed beneath the muscle. It is also more difficult to perform mammography with breast implants in place. Before obtaining a mammogram you should inform the technologist that you have implants. Because the breast is squeezed during mammography, it is possible for an implant to rupture although this is exceedingly rare. Because more views are necessary a woman with implants will receive more radiation to the breast over her lifetime. However, the benefit of the mammogram definitely outweighs the risk of the small amount of additional radiation.

### *STAGE AT DIAGNOSIS*

Women with breast implants who are diagnosed with breast cancer do not have it detected at later stages than women without breast implants who are diagnosed with breast cancer.

### *SURVIVAL AFTER DIAGNOSIS OF BREAST CANCER*

Studies show that women with breast implants who develop breast cancer have the same survival rates as women without implants who develop breast cancer.

***\*It is recommended that all women perform periodic self examination of their breasts, have mammography according to American Cancer Society or National Cancer Institute guidelines, and seek professional care should they notice a breast lump.***

## **IMPLANT LOCATION**

Breast implants may be placed on top of the muscle or under the muscle. When placed “on top of the muscle” they are placed between the pectoralis major muscle and the breast gland. When placed “under the muscle” they are placed under the pectoralis major muscle. There are actually several variations of being placed “under the muscle”. One method is to attempt to obtain total muscle coverage (total submuscular) by attempting to recruit adjacent muscles to cover the implant. Another is to cover it with the pectoralis major without releasing it from the ribs near the bottom of the breast (partial submuscular). Another is to cover the implant with the pectoralis major muscle and release the lower portion from the ribs to allow a certain amount of interface between the implant and the breast gland (dual plane). The pros and cons of each method are shown below.

### **ABOVE MUSCLE**

#### Advantages:

1. Better control of breast shape.
2. May have less pain and faster recovery.
3. No distortion with muscle contraction.
4. Better control of the inframammary fold.

#### Disadvantages:

1. More likely to feel and see implant edge.
2. More interference with mammogram.
3. Increased risk of capsular contracture (firmness).
4. More likely to see implant wrinkling.
5. More likely to interfere with nipple sensation.

### **PARTIAL SUBMUSCULAR**

#### Advantages:

1. Less likely to feel and see implant edge.
2. Less interference with mammogram.
3. Decreased risk of capsular contracture (firmness).
4. Less likely to see implant wrinkling.

5. Less likely to interfere with nipple sensation.

Disadvantages:

1. Eventually displaces towards the side, widening cleavage over time.
2. Less fullness in upper inner breast.
3. May have more pain and longer recovery.
4. Distortion with muscle contraction.
5. Less control of the inframammary fold.

## **TOTAL SUBMUSCULAR**

Advantages:

1. Same as Partial Submuscular, plus:
2. Possible temporary increased soft tissue coverage over lower outer breast.

Disadvantages:

1. Same as Partial Submuscular, plus:
2. Increased risk of upper implant displacement.
3. Longer surgery time.
4. Most pain and longest recovery time.
5. Least control of inframammary fold.

## **DUAL PLANE (Preferred technique)**

Advantages:

1. Less likely to feel and see implant edge in upper and inner breast.
2. Less interference with mammogram.
3. Decreased risk of capsular contracture (firmness).
4. Less likely to see implant wrinkling.
5. Less likely to interfere with nipple sensation.
6. Better control of lower breast shape.
7. Less pain and faster recovery comparable to above muscle technique.
8. Better control of the inframammary fold.
9. Minimizes displacement towards the side, preserves cleavage.
10. More fullness in upper inner breast than partial submuscular.
11. Reduced distortion with muscle contraction.
12. Less control of the inframammary fold.
13. In my opinion, the most natural shape

Disadvantages:

1. More likely to feel implant at lower breast.

## **SCAR LOCATION**

### **INFRAMAMMARY SCAR**

Advantages:

1. Fine line scar in crease below breast
2. Less OR time (cost)
3. Less risk of implant contamination
4. Often used in secondary surgery

Disadvantages:

1. Scar on breast

### **TRANSAXILLARY SCAR**

Advantages:

1. Least visible scar, not on breast.
2. Less risk of implant contamination.

Disadvantages:

1. Very difficult to correct sagging (ptosis).
2. Longer operating time (cost).
3. Possible interference with sentinel node biopsy.

### **PERIAREOLAR SCAR**

Advantages:

1. Well concealed at edge of nipple.
2. Easier to contour breast if needed

Disadvantages:

1. Requires a certain areola size and shape
2. Higher risk of implant contamination (infection, capsular contracture).
3. Greater risk to nipple sensation.
4. Greatest risk of interfering with breast feeding.
5. Possible interference with sentinel node biopsy.

### **UMBILICUS**

Advantages:

1. Least visible scar, not on breast.

Disadvantages:

1. Pocket developed blindly instead of under direct vision.
2. May develop lumps or depressions in upper abdomen.
3. More swelling, bruising, and pain.
4. Longer recovery.
5. Possible increased risk of bleeding.
6. Few secondary operations can be done by this approach.

## IMPLANTS

### *MANUFACTURERS*

Currently there are only two manufacturers whose breast implants are FDA approved for use in the United States – Mentor and Inamed (formerly McGhan). Between the two of them they provide over 500 different styles and sizes of implants! I believe both are excellent companies and I am quite comfortable using implants from either of them. There are times where one of them may have an implant with a feature that I think will fit a particular patient best. However I feel any patient should be quite comfortable with an implant from either of these manufacturers.

### *OUTER SHELL*

The outer shell of all implants currently available in the United States is made of silicone elastomer. The feel of the shell is similar to that of a zip-lock bag, only a little thicker.

### *FILLER*

The implants may be filled with silicone gel or saline. Saline solution is simply salt water. It is the same solution often used when someone receives an IV for dehydration or surgery. The silicone gel is more cohesive with a more viscous consistency. The gel in earlier implants was more liquid (like honey), whereas now the tendency is to make the gel more cohesive (like gelatin). With today's implants, you can cut them in half and the gel doesn't just run out. It holds together more. Any candidate for breast augmentation may have saline implants. To get silicone gel implants a woman must meet certain study criteria and enroll in an FDA (Food and Drug Administration) study protocol.

### *SURFACE*

The surface may be smooth or textured. The current texturing is the silicone elastomer surface, though other substances had been used in the past. The reason for texturing is that it was thought to reduce the incidence of capsular contracture (firmness). The texturing does help hold the implant in position so it is used for anatomic shaped implants. However almost all the deflations I have seen from the currently approved manufacturers in the United States have been textured implants. Therefore I only recommend a textured surface for use with anatomic implants.

### *SHAPE*

The two basic shapes available for breast implants are round and anatomic. I recommend round implants for most applications but am quite comfortable placing anatomic implants. There are some instances in which I will highly recommend an anatomic implant. It may be easier to achieve a particular shape desired by the patient by using a particular shaped implant.

### *PROFILE*

Implants now are available in low, medium and high profile. For a given volume, the low profile implant will have the widest diameter and the least projection. The high profile implant will have the narrowest diameter and the most projection. The medium profile implant is in between in terms of diameter and projection. An important concept to understand is that the center of the implant is centered in line with the nipple. Therefore as the implant profile increases, the diameter decreases and the space between the breasts becomes wider. High profile implants also give a more rounded upper breast.

### *FILL ISSUES*

Saline implants come out of the box empty and are filled with saline at the time of surgery. The proper fill of an implant is very important. The less saline in an implant, the softer it feels but the more it wrinkles. The more saline in the implant, the firmer it feels but the less it wrinkles. The implants also come labeled for a particular volume – the nominal fill volume (i.e.: 300cc). The package insert will specify a normal fill range (300 – 325cc). Underfilling the implant in the example means filling it with less than 300cc. Overfilling would mean filling it with more than 325cc. Studies have shown that underfilled implants are more likely to deflate. I almost always fill implants *at least* to the upper end of the fill range and sometimes will overfill them. These fill issues will vary with different styles of implants as the current trend is to develop implants that require more volume for a given shell surface area.

## SIZE SELECTION

A significant portion of the consultation is spent measuring the breast and determining implant size. For more information regarding size selection refer to section on Size Selection.

## WARRANTIES

**BREAST IMPLANTS ARE NOT A LIFETIME DEVICE.** In time they will deflate. Both Mentor and Inamed have automatic free-of-cost basic warranties that cover *spontaneous deflation of the device only*. Both companies have additional warranties available for a moderate fee. It is important to understand that both companies pay these as a reimbursement after they have analyzed the deflated implant in their own laboratories. In other words the patient must initially pay the surgeons fee, anesthesia, and operating room costs then waits about 6 weeks to get reimbursed by the company. I personally have never had a problem getting Inamed or Mentor to honor their warranties.

### INAMED

#### ***Confidence Plus Limited Warranty***

- Ten years of guaranteed financial assistance. Patient receives up to \$1,200 in out-of-pocket expense for surgical fees, operating room and anesthesia expenses not covered by insurance.
- Saline filled and silicone filled Inamed style implant coverage.
- At the request of the physician, any size may be selected to replace a current Inamed implant at no cost, or another style may be selected (a charge may apply on a product with a higher list price). Applies for the lifetime of the patient.

#### ***Confidence Plus Platinum Limited Warranty***

- Ten years of guaranteed financial assistance. Patient receives up to \$2400 in out of pocket expenses for surgical fees, operating room and anesthesia expenses not covered by insurance.
- Enrollment fee of \$100, must enroll within 30 days of surgery.
- Saline filled and silicone filled implant coverage.
- Contralateral implant replacement.
- At the request of the physician, any size may be selected to replace a current Inamed implant at no cost, or another style may be selected (a charge may apply on a product with a higher list price). Applies for the lifetime of the patient.

### MENTOR

#### ***Mentor Standard Advantage Warranty***

- Five years and up to \$1,200 of financial assistance for operating and anesthesia costs. In order to qualify for financial assistance, patient will need to sign a release form.
- Saline breast implant coverage.
- Replacement Mentor product of the same or similar type as the originally implanted product, free of cost, for the lifetime for the patient
- The contralateral implant will be provided at no charge at the surgeon's request.

### ***Mentor Enhanced Advantage Warranty***

- Ten years and up to \$1,200 financial assistance for operating room and anesthesia costs not covered by insurance.
- Ten years and up to \$1,000 financial assistance for surgeon's fees not covered by insurance. In order to qualify for financial assistance, patient will need to sign a release form.
- Enrollment fee of \$125, must enroll within 45 days of surgery.
- Saline breast implant coverage
- Replacement Mentor product of the same or similar type as the originally implanted product, free of cost, for the lifetime for the patient.
- The contralateral implant will be provided at no charge at the surgeon's request.

### **NEW BREAST = IMPLANT + YOUR BREAST**

Many factors will affect the outcome of your surgery. The number one factor that determines your outcome is what your breast looks like before any surgery. Your new postoperative breast will be the sum of the size and shape of the implant plus the size and shape of your existing breast. Your breast may present a number of limiting factors that affect the results.

The chest wall is the foundation upon which the breast sits. The chest may be tall and narrow or short and wide. The circumference of the chest may be a barrel shape or wide and flat due to the way the ribs are curved. The breastbone may be flat, depressed, or protrude.

The quality of the skin over the breast may vary in appearance, pigmentation, and in how it heals. It may be thick or thin, and its elasticity will vary. It may have stretch marks. The layer of fat under the skin will vary in thickness from patient to patient and in different parts of the breast. It may vary from one side to the other. The amount and distribution of glandular tissue within the breast also varies. Pregnancy and breastfeeding will affect all of these elements.

The nipple areola complex varies greatly in its size, shape, color, and position on the breast. The nipple may project more, less, or be inverted. It may be of large or small diameter. The position of the nipple relative to the inframammary crease is one of the factors that determines a need for a lift. They may be farther apart or close together.

Achieving symmetry is one of the goals of surgery. However no one starts out perfectly symmetrical, so it is impossible to have a perfectly symmetrical result. Some types of symmetry can be corrected but other are exaggerated by breast implants. On examining a patient I look at the shoulders first. In most patients the right shoulder sits lower than the left, the right nipple and inframammary crease are usually lower as well. Usually the left breast is slightly larger than the right. Volume differences may be corrected by implants. Although if you fill two particular size implants to different volumes, the one with more fluid will be firmer. If you use different size implants, then the implant diameters will differ and therefore another asymmetry is introduced. An even more difficult problem is having one nipple higher than the other. Implants often exaggerate this asymmetry. Another fairly common symmetry issue is the levels of the inframammary crease. The creases are usually at different levels. The bottom of the implant sits at the crease level; therefore the upper edges of the implants may sit at different levels.

Also critical is the amount of soft tissue coverage over the implant. Soft tissue consists of skin, fat, breast, and muscle. The thickness of this tissue determines its strength and how well it will hold up the implant over time. It also determines whether there will be visible wrinkling and how easy it will be to feel the implant through the

tissue. It also determines the final breast shape and how natural or unnatural it looks. One way to think of this is the ratio of breast tissue to implant. If the final result is 50% your tissue and 50% implant, it will look and feel very natural. If it is 90% implant and 10% your breast, then it will look and feel very unnatural. Some women prefer this unnatural, fake, or "Baywatch" look.

Another implant to tissue relationship is the distance between the breasts, or the cleavage. If that distance is narrow before surgery it tends to stay narrow after surgery. If it is wide before surgery, it will tend to stay wide. One must be careful using a wider implant to narrow the cleavage as the inner edge of the implant may be under some very thin soft tissue. This may create visible wrinkling even with an implant under the muscle. Another limitation in narrowing the cleavage occurs when the nipples lie far apart. The center of the implant needs to sit under the vertical line of the nipple. This determines where the inner edge of the implant is and therefore the distance between the breasts. Though this could be improved by using wider diameter implants, an unacceptably large size may be required to achieve the desired distance between the breasts.

## **IMPLANTS AND LIFTS**

One of the more common problems encountered in cosmetic breast surgery is sagging, or ptosis. There are several components of ptosis. The main problem is that there is too much skin for the amount of breast volume. This allows the nipple to sit below the inframammary crease and creates contact between chest skin and breast skin on the underside of the breast. It also creates a long distance from the collarbone to the nipple. Under these circumstances the breast skin is thin and unable to hold up the weight of the breast.

The condition may be corrected by reducing the amount of skin, increasing the breast volume, or a combination of the two. Using an implant alone is useful only for very minor degrees of ptosis. If the ptosis is moderate, then a lift and implants may be combined in a single operation. In cases of severe ptosis, it is most predictable and has the least risk if the lift is performed first, then a breast augmentation is performed at least three months later.

The main problem in performing a lift at the same time as placing implants is the limitations of the skin. A woman has sagging of the breast partly because the skin is too weak to hold up the weight of the breast. The additional weight of the implant will cause the breast to sag more. Also in performing a lift the breast is further weakened by incisions at the bottom of the breast. This is exactly where more strength is needed, not less. It takes about 6 weeks after an operation for the tissues to regain their strength. Performing a lift at the same time also increases the risk of infection and capsular contracture because of the increased contact between breast tissue and the implants.

## **THE SURGICAL EXPERIENCE**

Dr. Sloan and his staff recognize the natural anxiety that most patients experience as the day of surgery approaches. Hopefully an explanation of what to expect will alleviate some of this anxiety. Although we do this every day and it is routine for us, we realize that this is a major life event for you. We promise to do everything we can to put you at ease.

About two weeks prior to surgery you will come to our office for a pre-operative appointment. At that time my staff will go over detailed instructions of what you need to do before and after surgery. We will take photos and you will receive your prescriptions. We ask that you stop smoking (if you are a smoker) and avoid the use of medications that may increase the risk of bleeding (aspirin, etc.). You will be given a list of these drugs. Drug reactions between herbs and the medications used during surgery are not well known. For your safety do not use any herb or dietary supplement for two weeks before and after surgery. You will also be given instructions that help reduce the risk of blood clots in the legs.

You will be instructed to not eat anything after midnight the night before surgery. You will arrive at the Surgery Center one hour before your scheduled surgery time. You must arrange for someone to drive you home from the surgery center and remain with you the first night because you will have had a general anesthetic.

Your surgery will be performed at an accredited outpatient surgical facility. The surgical team includes a board certified plastic surgeon, a board certified anesthesiologist, a certified registered nurse anesthetist, a certified operating room technician, and a registered nurse. All of us have many years of experience in the operating room.

After you arrive at the Surgery Center, you will be escorted to a private room where you will change into a gown. Dr. Sloan, the anesthesiologist, and the nurse will then meet with you. Dr. Sloan will confirm the surgical plan with you, mark your skin if needed, and answer any last minute questions. An IV will be started and sedation administered. Most patients are unable to recall events of the day after sedation is given.

You will be taken to the operating suite on a stretcher and transferred to the operating table. Sophisticated monitoring devices will be connected to you and anesthesia administered. Dr. Sloan will then proceed with surgery. A breast augmentation typically takes 40 minutes to perform and you are under anesthesia for less than an hour. When surgery is over, a small piece of tape is placed over each incision and you will be taken to the recovery room. Your vital signs are constantly monitored. A specially trained recovery room nurse will take care of you and remain with you at all times. Your stay in the recovery room will last perhaps another hour. You will then get dressed and be discharged to home.

#### **ANESTHESIA**

Many patients have an instinctive fear of general anesthesia. When general anesthesia is used, you will be sound asleep and under the care of your anesthesiologist throughout the operation. Extremely sensitive monitors used during surgery have greatly reduced the risks of anesthesia. A minute change in the oxygen level in your blood, in the amount of carbon dioxide you breathe out, in the percentage of anesthetic gas being administered, in your heart rate, or in your blood pressure would be reported immediately. Most complications of anesthesia in the past have occurred because of "simple" problems that were not recognized quickly enough. The sophisticated monitoring now used makes recognition and treatment of problems with anesthesia immediate and much safer than in the past. The anesthesia and monitoring equipment is routinely maintained and is of the same quality as the equipment in any major hospital.

#### **RECOVERY AND HEALING**

Recovery is the time it takes to get over the surgery and return to normal activities. This is measured in days. Healing is the time it takes for all the tissues to get back to as normal as they will get. The breast will attain it's final postoperative shape in 6 weeks to 6 months. For all of your sensation to get back to normal may take up to two years.

Recently we have been using a rapid recovery system. Patients have very little bruising and their pain is controlled by non-narcotic analgesics. No bandages, drains, or special bras are used. Patients typically can shower, eat anything they want, and leave the house the day of surgery. You may lift, drive, and resume normal activities within 48 hours of surgery even with implants beneath the muscle. Your incision, whether it is under the breasts, under the arm, or around the nipple will be covered with paper tape. This will stay on for one week after surgery. Usually, there are no sutures to remove.

Many patients have surgery on Friday and return to work on Monday. Light exercise may be resumed in a few days. You may return to full aerobic exercise at two weeks after surgery.

We see our patients at regular intervals after surgery. Follow-up appointments are scheduled at one and three weeks after surgery; then at three months after surgery. If we need to see you more often, we are happy to do so.

#### **BENEFITS OF BREAST AUGMENTATION**

Women seek breast augmentation surgery for a variety of perceived benefits. Most simply want to look better in certain types of clothes or swimsuits, thus increasing her clothing options. Certainly when a woman believes she looks better, she feels better about herself. The woman will look and feel more feminine. It may very well

increase her self confidence. We see this whether a woman never had a large enough breast to begin with, or if she is restoring her size after breast feeding, or if she is trying to achieve better symmetry of the breasts due to a developmental condition.

Along with improving the shape and size of the breast, other goals are just as important. Every effort is made to maintain breast function, softness, and sensitivity. It is also critical to minimize interference with breast cancer detection. If a woman is planning on having more children then the procedure should be planned so that there is no interference with breast feeding.

There is an extremely high satisfaction rate with breast augmentation surgery. However it is not for everybody. As with any cosmetic procedure patient selection is critical. The keys to success in this procedure are good health and realistic expectations on the part of the patient. When these goals have been met, many women tell us it's the best thing they ever did for themselves.

## **RISKS OF BREAST AUGMENTATION**

Although breast augmentation is a very common operation with a high level of success, it is incumbent upon every patient to understand the natural course of events and potential complications for any breast that has an implant placed under it. Patient understanding of limitations, tradeoffs, and complications is critical. Complications can be due to a number of factors. There are complications due to the patient's underlying health, complications of anesthesia, complications due to surgical trauma, and complications due to the implants. There is often a fine line between what is considered a side effect of surgery and what a true complication is.

One of the limitations of breast augmentation is that stretch marks on the breast will not be eliminated by implants. Also, the skin may be too tight to accommodate a very large implant. If there is severe sagging of the breast a lift may be required either at the same time or at a later date. Breast implants do not prevent the natural aging of the breast. Many asymmetries may persist and actually be aggravated by breast implants.

A breast augmentation patient will also have to accept certain tradeoffs. Where incisions are made there is always a scar. Every effort will be made to make this scar as inconspicuous as possible. Most of the time, the patient will be able to feel the implant under the skin. The less breast tissue you have the more likely you are to feel the implant. A saline breast implant is also slightly firmer than natural breast tissue, though many women actually prefer the firmer feel. One of the most important tradeoffs is the anticipation of future operation. Breast implants are not lifetime devices.

Most complications due to poor underlying health can be avoided by restricting the operation to healthy patients. Likewise many of the potential anesthetic problems can be avoided by operating only on healthy women.

## **SURGICAL COMPLICATIONS**

*Breast implants are not considered lifetime devices. You should anticipate additional surgery and doctor visits over the course of your life. Even though the implants are covered by a lifetime replacement policy, you should anticipate additional expenses related to future implant surgery.*

### **DEFLATION**

Breast implants deflate when the saline solution leaks out of the implant due to the development of a defect in the implant shell. It may deflate rapidly or progressively over the course of several days and is noticed by a loss of size and shape of the implant. The rupture rate is less than 4% in the first seven years. They may deflate due to some type of trauma but usually they just wear out over time and deflate. Deflated implants require additional surgery to replace the implant.

### **CAPSULAR CONTRACTURE**

The scar tissue or capsule that normally forms around the implant may tighten and squeeze the implant and is called capsular contracture. Capsular contracture is more common following infection, hematoma, and seroma. It is also more common with placement above the muscle. Symptoms range from firmness and mild discomfort, to pain, distortion, palpability of the implant, and/or displacement of the implant. Additional surgery is needed in cases where pain and firmness are severe. My recommended treatment of capsular contracture is implant

removal with removal of the scar tissue, followed by re-augmentation 3 months later. Capsular contracture may happen again after these additional surgeries. Capsular contracture may occur on one or both sides.

#### *PAIN*

Pain of varying intensity and duration may occur and persist following any surgery. In addition, excessively large size, improper placement, surgical technique, or capsular contracture may result in pain associated with nerve entrapment or interference with muscle motion.

#### *DISSATISFACTION WITH COSMETIC RESULTS*

Dissatisfying results such as wrinkling, implant displacement (shifting), incorrect size, unanticipated shape, implant palpability, scar deformity, or hypertrophic (irregular, raised scar) scarring may occur. Asymmetry in implant position, nipple location, or size may occur. Unsatisfactory surgical scar location may occur. Results of surgery are unpredictable for any individual patient. You may be disappointed with the results of your surgery.

#### *REOPERATIONS*

Some complications may require additional surgery or other treatment to correct them and will result in additional expense to you. In rare cases, a satisfactory solution may not be possible.

#### *INFECTION*

Infection can occur with any surgery. Infection may occur even though special precautions are taken, and despite the administration of antibiotics. Most infections resulting from surgery appear within a few days to weeks after the operation. However, infection is possible at any time after surgery. Infections with an implant present are harder to treat than infections in normal body tissues. If an infection does not respond to antibiotics, the implant must be removed. Another implant may be placed 6 months after the infection is resolved.

#### *HEMATOMA / SEROMA*

Hematoma is a collection of blood inside a body cavity, and a seroma is a collection of fluid. Hematoma and seroma may contribute to infection and/or capsular contracture. Swelling, pain, and bruising may result. If a hematoma occurs, it will usually be soon after surgery. However, it can also occur at any time after injury to the breast. Seroma may occur soon after surgery or, rarely, years later. While the body absorbs small hematomas and seromas, large ones will require surgery for proper healing.

#### *CHANGES IN NIPPLE AND BREAST SENSATION*

Feeling in the nipple and breast can increase or decrease after implant surgery. The range of changes varies from intense sensitivity to no feeling in the nipple or breast following surgery. Changes in feeling can be temporary or permanent and may affect sexual response or the ability to nurse a baby.

#### *BREAST FEEDING*

At this time it is not known if a small amount of silicone may diffuse (pass through) from the saline filled breast implant silicone shell and may find its way into breast milk. If this occurs, it is not known what effect it may have on the nursing infant. Although there are no current methods for detecting silicone levels in breast milk, a study measuring silicon (one component in silicone) levels did not indicate higher levels in breast milk from women with silicone-filled gel implants when compared to women without implants. (Most modern day pacifiers and baby bottle nipples are made from silicone.) The periareolar incision site may significantly reduce the ability to successfully breast feed.

#### *ASYMMETRY*

No one has perfectly symmetrical breasts. Implants can correct volume asymmetry but may make nipple asymmetry more obvious. The breasts usually heal at different rates and some degree of asymmetry is expected during healing. If the implants heal in asymmetric positions (too high, too low), a second surgery may be needed.

#### *WRINKLING*

Visible and palpable wrinkling of implants can occur. Some wrinkling is normal and expected. This may be more pronounced in patients who have saline-filled implants with textured surfaces or thin breast tissue. It may be possible to feel the implant fill valve. Some patients may find palpable valve and wrinkles cosmetically undesirable. Palpable valve, wrinkling and/or folds may be confused with palpable tumors and questionable cases must be investigated.

### *SYNMASTIA*

This can develop with implants above or below the muscle. The skin over the breastbone can pull away and the implants can slide closer together, reducing or eliminating cleavage. The degree can vary from mild to severe. Secondary surgery may be required and correction may be extremely difficult to accomplish.

### *DISSATISFACTION WITH SIZE*

Every effort is made to help the patient select an appropriate size implant. We never guarantee a particular cup size as there is too much variability among bra manufacturers.

### *BREAST TISSUE ATROPHY/CHEST WALL DEFORMITY*

The pressure of the breast implant may cause the breast tissue or chest wall tissue behind the implant to thin and shrink. This can occur while implants are still in place or following implant removal without replacement. This is more likely to occur with high profile implants.

### *CONNECTIVE TISSUE DISEASE*

Concern over the association of breast implants to the development of autoimmune or connective tissue diseases, such as lupus, scleroderma, or rheumatoid arthritis, was raised because of cases reported in the literature of small numbers of women with implants. A review of several large epidemiological studies of women with and without implants indicates that these diseases are no more common in women with implants than those in women without implants. The effects of breast implants in individuals with pre-existing immune system and connective-tissue disorders are unknown. There is the possibility of unknown risks associated with silicone breast implants and tissue expanders.

### *SECOND GENERATION EFFECTS*

There have been concerns raised regarding potential damaging effects on children born of mothers with implants. A review of the published literature on this issue suggests that the information is insufficient to draw definitive conclusions.

### *REMOVAL / REPLACEMENT OF BREAST IMPLANTS*

Future revision, removal, or replacement of breast implants and the surrounding scar tissue envelope involves surgical procedures with risks and potential complications. There may be an unacceptable appearance of the breasts following removal of the implant.

### *LONG TERM RESULTS*

Subsequent alterations in breast shape will occur as the result of aging, weight loss or gain, pregnancy, or other circumstances not related to augmentation mammoplasty. Sagging of the breast may normally occur.

## **FINANCIAL ASPECTS OF SURGERY**

The original operation that typically costs upwards of \$4000 is only a portion of the cost you will eventually sustain. If there are complications there will be additional costs early on. Even if there are no surgical complications one should anticipate future expenses as the implants are not likely to last you the rest of your life. Even if your implants last 15 years, a 20 year old patient would be looking at three or more additional operations during her lifetime. These costs should be taken into consideration when you are budgeting for your surgery.

The cost of surgery includes surgeon fees, anesthesiologist and anesthesia supply fees, implants, nursing staff, lab tests performed at the surgery center, and use of the operating room for the estimated operating time. If the procedure takes significantly longer than the time scheduled, expect additional operating room and anesthesia fees. Laboratory services performed outside the surgery center, including pathology lab charges, are billed separately. Prescription costs will be your responsibility. Additional costs may also occur should complications develop from the surgery. All additional surgery or hospitalization charges will be your responsibility. Health insurance companies exclude coverage for cosmetic surgery and any complications that might occur from cosmetic surgery. Health insurance premiums may be dropped, premiums may increase, or future coverage may be denied in patients with breast implants. Please carefully review your health insurance subscriber information pamphlet and underwriting policies.

## **ALTERNATIVES TO BREAST IMPLANTS**

Women may seek alternatives to breast augmentation because of fear, cost, risk, or they have heard about someone who had a bad outcome or re-operations. Alternatives to breast implant surgery do exist, however they all have their limitations. Some provide only modest enlargement. Some do not work at all. These options are listed below.

### *DO NOTHING*

This is a perfectly acceptable option. It has a known outcome, no cost, and no risk.

### *EXERCISE*

Weight lifting can certainly help develop the chest muscles. No amount of exercise will tighten skin beyond its inherent ability to contract, or elasticity. Elasticity is lost with breast feeding, ageing, tanning, and smoking. Women who exercise intensely may actually lose breast size as they lose body fat, some of which is in the breast.

### *CREAMS*

There is no scientific data that these are effective in producing a significant increase in breast size. There is no prescription strength cream that has been FDA approved for increasing breast size.

### *PILLS*

There is no scientific data that over-the-counter pills and herbal supplements are effective in producing a significant increase in breast size. There is no prescription strength pill that has been FDA approved for increasing breast size. Some women may notice a slight increase in breast size when they take estrogens. All medications have some risk.

### *EXTERNAL BREAST ENHANCERS*

Silicone gel breast forms, Wonderbras, Waterbras, padded bras, and push-up bras can all provide an improved size and shape to the breast in certain types of clothing. Of all the listed alternatives, they are by far the most popular. However there are limitations to the types of clothing a woman can wear, and certainly out of clothing any improvement is nonexistent. Many of our patients have tried these prior to coming in for a consultation because they have become frustrated with the limitations of these devices.

### *FAT INJECTIONS*

Fat or other substances should NEVER be injected into the breast. The injected fat causes scar tissue and very small calcium deposits that can be confused with a cancer on a mammogram. This can result in an unnecessary breast biopsy, or worse, a cancer that is ignored because the calcium deposit is attributed to the fat injection.

### *YOUR OWN TISSUE*

This is an effective technique for a woman who has lost her breast due to a mastectomy for cancer. However the degree of scarring and the increased risks of the operations prevent it from being used for cosmetic purposes.

### *BRAVA® BREAST ENHANCEMENT AND SHAPING SYSTEM*

A clinically proven non-surgical alternative, it consists of two plastic domes held in place by a sports bra. It applies a negative pressure (pull) to the breast tissue and has been shown to increase breast size by up to 100cc approximately one-cup size. This true breast enlargement has maintained for more than one year after discontinued use of the BRAVA System. Cost of the treatment is \$2500.

### *HYPNOSIS*

There is no scientific data that hypnosis is effective in producing a significant increase in breast size.