CHAPTER 9

Plastic and Reconstructive Surgery of the Breast

Augmentation Mammaplasty
Silicone Facts
Breast Examinations
Mastopexy (Breast Lifting)
Reduction Mammaplasty
Breast Reconstruction

Note: Prior to reading this chapter, make sure that you have read Parts I and II of this book.
Breast augmentation or augmentation mammoplasty is the plastic surgical procedure used to increase the size and sometimes the shape of a woman’s breast. This is accomplished by the placement of implants beneath the chest muscle and the existing breast tissue. There are instances, however, when we will recommend placing a different type implant beneath the breast tissue to obtain the most pleasing result.

An important part of the preoperative consultation should include a general determination of the desired breast size. Although almost any degree of augmentation can be achieved, you and your surgeon must decide on a general size improvement which coincides with your total body size and shape in addition to your preoperative breast size. Your ultimate breast size will be determined at the time of operation.

To accomplish the most attractive and natural appearing result, the implants must be carefully placed within a pocket the surgeon creates beneath the existing breast tissue.

Implants can be placed in the submuscular (under the muscle) plane or subglandular plane (over the muscle and under the breast gland). We do an extensive evaluation of your breast noting the skin quality, skin and breast tissue thickness, and amount of ptosis (sagging) of the breasts. Recommendations as to which approach is best for you is totally customized to each patient based on the above criteria as well as other factors. Some advantages to subglandular placement include a quicker recovery and more natural appearance. Some advantages of submuscular placement are a slightly decreased risk of capsular contraction (firmness of the breast) and slightly better mammographic imaging.

Naturally, incisions must be made into the skin in order to place the implants. These may be placed beneath the breast in the skin crease where it is hidden, within the axilla (armpit) or around the nipple and areola. The inframammary approach is common. The scars in the thinner skin of the anterior armpit, however, are virtually imperceptible. Regardless of the incision, every effort is made to obtain the best scar possible depending on the individual’s healing capacity.

Anesthesia for breast augmentation can be local injection with intravenous sedation or general anesthesia, if requested. We have found the submuscular implant placement to be somewhat uncomfortable and the period of convalescence to be several days longer than when a subglandular
operation is performed. We usually recommend general anesthesia when performing a breast augmentation.

Complications are possible during any surgical procedure. Reactions to medications, poor scarring, hematoma and infection are problems associated with any surgery. There are several complications unique to breast augmentation. Asymmetry or improper location of the implants is possible. This usually occurs when there is preoperative discrepancy in the size of the breasts. We attempt to obtain symmetry by using different size implants but occasionally the asymmetry persists. The most common problems associated with augmentation are the formation of “capsules” and temporary loss of nipple sensation. Permanent loss of sensation is unusual but can occur anywhere in the breast. Capsules are circumferential scars around the implants causing an unnatural firmness to the breast. Although submuscular placement of the implants has decreased this problem, occasionally some degree of firmness is present. If the capsule becomes severe causing an unnatural appearing or painful breast, a second operation to release the capsule may be necessary. Massage of the implants is an important step in preventing capsule formation. Loss of nipple sensation is almost always transitory and eventually resolves.

Postoperative Care After Breast Augmentation Mammaplasty

Varying amounts of postoperative discomfort are common to any operation as well as some nausea, swelling, and possibly bruising of the chest skin. The swelling and bruising can be reduced by wearing a support bra which is provided at the time of surgery. The support bra is worn at all times for one week. To help the body maintain the size and shape of the pockets the implants are massaged beginning on the third day in a manner that your doctor and nurses will instruct you. Each doctor’s postoperative care varies but specific instructions will be given to you.

Activity after submuscular implant placement must be limited for six weeks. We prefer no heavy lifting over twenty pounds, no aerobics and no swimming. Walking is recommended but jogging is not advisable. Most women do find that they are able to return to work at 3-5 days.

As with any operation, your healing will be a personalized activity. It usually takes two to three months for your scars to soften and begin to fade. Your scars must be protected from sunlight during the entire healing process. Your breast shape and location of the implants will slowly change over several months until your healing is well underway, so do not be disturbed if your breast shape seems too high or that your skin feels tight. Your body and the effect of gravity and massage will allow your implants to settle into the final result.

Every woman should practice breast self-examination. In the event a breast mass is found, the surgeon evaluating the mass should be aware of the prior augmentation. The presence of the implants in no way impedes the examination of the breast tissue nor the necessity for biopsy of suspicious lumps. Silicone gel implants do make mammography of the breast more difficult. Some mammographers have more experience with augmented breasts than others, so we recommend that you talk to your mammographer to be certain he/she feels comfortable performing the test. If not, we will recommend one for
you. Due to the difficulty in obtaining a good mammogram after breast augmentation, we ask all of our breast patients to return to the clinic at least twice a year for breast examination as well as routine follow-up. These visits should continue indefinitely. We believe any woman who envisions herself as having small breasts is a candidate for augmentation mammaplasty. The ideal patient has given the operation considerable thought and has decided to proceed to improve her self-image. She is entirely self-motivated to look better both in and out of clothing and is not making the decision at the urging of someone else.

Quick Check Postoperative Augmentation Mammaplasty
Please follow these instructions carefully. Your final result will depend upon how well you care for the treated areas.

WEEK 1
DO: Keep bra on for 7 days, taking off for baths only.
DO: Bathe or shower normally each day.
DO: Blow dry any skin tapes after bathing.
DO NOT: Apply deodorant if underarm incisions were used. However you may apply perfume or powder.

DAY 7-14
All sutures out. You will be given instructions on massaging implants. (Move implants up, down, and from side to side 2 or more times daily.) Bra optional at this point.

6 WEEKS
Patient may return to normal activity.
DO: wear good support bra when exercising.
DO: Continue to massage implants once daily.
DO: Use sunblock and prevent direct sunlight to incision for one year.

CALL IF YOU HAVE ANY QUESTIONS
251-967-7600

The submuscular placement of the implant is depicted on the right. The submammary location is seen on the left.
This young woman wore a 34B bra but felt that larger breasts would be more proportional for her. She wished to avoid looking artificial or too large. The lines drawn beneath the breast and nipple seen in the preoperative views indicate options for the incision used to insert the implants. This patient chose the underarm incision. Moderate augmentation with saline implants gave her a more natural and pleasing appearance and proportion.
This 34-year-old mother of two wanted increased breast projection and size with a more youthful contour. This was accomplished with submuscular implants placed through underarm incisions.

22 year-old woman wanted breast more proportioned to her height and body habitus.

27 year old registered nurse wanted increased breast size.
SILICONE:
Facts and Misconceptions

Silicone is one of the most biologically inert (non-reactive) material used throughout the medical profession. There has recently been a rash of sensationalized programs in the national and local media concerning silicone.

Silicone is used in thousands of different medical devices. It is used to coat every needle and syringe, to lubricate surgical instruments, is a major ingredient in such drugs as the antacid Digel and is added to many topical products.

Virtually everyone has some exposure to silicone in his/her life.

An attempt has been made to link silicone breast implants with the development of diseases of the immune system, breast cancer, and other collagen diseases such as rheumatoid arthritis. This has not been proven in any scientific study.

Breast Implants

Over two million women in the United States have chosen silicone breast implants for purely cosmetic or reconstructive reasons. In a recent national survey of women with breast implants, 93% of those questioned were satisfied and 88% said they would have their surgery again "without a doubt."

Saline implants consist of a silicone "bag" which is inflated with salt water solution at the time of surgery. Mentor and Allergan (formerly Inamed) saline-filled breast implants are approved for: (1) reconstruction (primary reconstruction and revision-reconstruction) in women of any age and (2) augmentation (primary augmentation and revision-augmentation) in women 18 years or older. Saline implants are slightly less expensive than silicone and can be placed beneath the breast through smaller incisions. Leaks are easily detected as the saline is absorbed by the body and the implant deflates. Saline implants are somewhat adjustable as you fill them at the time of surgery. They do not feel as natural as silicone implants and can have problems with rippling. The rippling is occasionally palpated (felt) through the breast tissue, especially in the lower half of the breast.

Mentor and Allergan silicone gel-filled breast implants are approved for: (1) reconstruction (primary reconstruction and revision-reconstruction) in women of any age and (2) augmentation (primary augmentation and revision-augmentation) in women 22 years or older. Silicone breast implants feel much more natural than saline implants, do not have the problems with rippling, and are much less likely to be palpated (ability to feel). They are placed beneath the breast through slightly larger incisions than saline since they are pre filled. Silicone leaks are much harder to detect. The only reliable way to detect silicone rupture is by MRI. The companies recommend a MRI after 3 years of implantation and then every 2 years thereafter. Most silicone leaks are silent (not detected by the physician or patient). Occasionally one has symptoms with leaking silicone implants. These symptoms include hard knots or lumps surrounding the implant or in the armpit, change or loss of size or shape of the breast or implant, pain, tingling, swelling, numbness, burning, or hardening of the breast. If a leak is suspected, the implants should be removed and/or replaced.
There was much controversy regarding the safety of silicone breast implants during the 1980’s and early 1990’s. Due to this, in 1992 the FDA restricted the general use of silicone implants to reconstructive surgery only or women who previously had been augmented with silicone implants. After extensive research, silicone implants were re-released in 2006 for augmentation purposes. Below is a portion of the press release from the FDA approving the use of silicone breast implants on November 17, 2006.

After rigorous scientific review, the U.S. Food and Drug Administration (FDA) today approved the marketing of silicone gel-filled breast implants made by two companies for breast reconstruction in women of all ages and breast augmentation in women ages 22 and older. The products are manufactured by Allergan Corp. (formerly Inamed Corp.), Irvine, Calif., and Mentor Corp., Santa Barbara, Calif.

In the past decade, a number of independent studies have examined whether silicone gel-filled breast implants are associated with connective tissue disease or cancer. The studies, including a report by the Institute of Medicine, have concluded there is no convincing evidence that breast implants are associated with either of these diseases. However, these issues will be addressed further in the post approval studies conducted by the companies.

“The silicone breast implant is one of the most extensively studied medical devices,” said Schultz. “We now have a good understanding of what complications can occur and at what rates. We also know that women who get these devices will probably need to have additional breast implant surgery at least once. This is valuable information for women who may be considering these products.”

These implants carry a deflation rate of approximately 2%.

There have been attempts to link silicone to the development of breast cancer. It is now well established that silicone breast implants do not cause cancer in humans. Silicone has caused a particular type of tumor in rats. This effect is felt to be unique to that particular strain of rodents.

The FDA strictly controls the manufacturing of all medical devices in the United States, including implants. The FDA is involved in all stages of production and requires monumental documentation of all tests performed on implants.

It is well known, however, that minute quantities of silicone gel can migrate through the walls of intact implants over a long period of time. Microscopic traces could eventually be found in other parts of the body. The Food and Drug Administration has stated however that “at this point there is no convincing evidence that these effects (i.e. harmful) actually occur.”

Just as with all surgery all plastic surgeons would agree that there are potential risks and complications from breast surgery with implants. However, much of the recent media coverage has been “sensationalized” and cannot be substantiated by scientific fact. Concerned patients who have had breast implants in the past or who are considering implants in the future are encouraged to consult with a surgeon knowledgeable about this type of surgery.
The Detection of Breast Pathology in Women With Breast Implants

We are dedicated to providing the best possible care available for women anticipating breast surgery. Recently, the news media has presented information concerning the effects of breast implants. Much of this information reached the public in an “out of context” form which has led to confusion regarding the safety and long-term effects of breast augmentation.

To set the record straight, we want our patients to know the facts about breast augmentation.

**Currently, there is good statistical evidence that breast implants in no way cause breast cancer or are related to more aggressive or advanced cancer when discovered in augmented breasts.** Although, approximately one out of every eight women in the U.S.A. will develop a breast cancer during her lifetime, when diagnosed and treated in the early stages, most breast cancers are curable. Therefore, all women, whether augmented or not, should learn breast self-examination, obtain physician breast examination, and consider regular mammography to detect breast lumps while small.

Women who already have breast implants as well as women considering breast augmentation should know that the presence of breast implants does require modifications in postoperative care. We recommend the following care for all women considering breast surgery at the McCollough Clinic.

**MAMMOGRAPHY**—The presence of breast implants makes obtaining a good mammogram more difficult than in the non-augmented breast. The extent of difficulty varies depending on the location of the implant beneath or on top of the chest muscle. Technical factors, such as the type of mammography equipment used, the “halo” cast by the implant, pre-operative breast size and the expertise of the radiologist doing the mammography must be considered. Most mammographers agree that with special attention to the augmented breast including extra views, mammography can be accurately performed.

**SELF-EXAMINATION**—Following augmentation, each woman is encouraged to familiarize herself with the shape, size and feel of her new breasts. This is required three days after operation and continues indefinitely.

**PHYSICAL EXAMINATION**—Occurrences such as folds and “knuckles” that sometimes develop in the implant’s covering, and the formation of small lumps within the scar tissue surrounding the implant called “granulomas” pose no problem to the patient. However, they can cause confusion or undue concern when felt by a physician inexperienced in this type of exam.

Therefore, to provide the best possible care, we emphasize breast self-examination, require preoperative and postoperative mammography in patients over the age of 35, as well as yearly breast follow-up and evaluation. We believe in prevention as well as in early detection and treatment of all potential threats to health, happiness, and longevity.
General anesthesia is usually required for mastopexy. The convalescence is similar to breast augmentation and requires limited activity for three weeks and a support bra for three months. Due to the extent of the incisions necessary for mastopexy, postoperative care must facilitate the best possible healing of the scars. It is not unusual to have a portion of the scar to heal less well and require a revision as an office procedure at a later date. Just as in the face lift operation, where extensive incisions are necessary, every attempt is made to hide the incisions and make them as inconspicuous as possible. Complications specifically related to mastopexy include asymmetric nipple placement, size discrepancies, especially when they existed preoperatively, infections, scarring and loss of nipple and/or nipple sensation on a rare occasion.
For cases of severe breast asymmetry multiple procedures can be performed to attain improved results. This patient had an augmentation on her right breast and a mastopexy on her left breast. The scar will continue to fade for the next 12-16 months.

This 34-year-old mother of four wished to improve her breast shape and symmetry. This was accomplished with a lift of both breasts and minimal reduction of the left breast. The scar will fade and continue to improve for the next 12-16 months.
Quick Check
Postoperative Instructions
Mastopexy

POST-OP
WEEK 1
DO: Keep support bra on for 7-10 days, taking it off for baths only. Patient will wash incisions with soap and water.
DO: Shower or bathe normally each day.
DO: Blow dry skin tapes after bathing.
DO: Strip your drains (if they are used) every 4-6 hours and record the output for each breast separately.

DAY 7-14
All sutures out. If implants included with mastopexy,
6 WEEKS
Return to normal activity.
DO: Wear good support bra when exercising.
DO: Use sunblock and prevent incision from direct sunlight for one year.

Reduction Mammoplasty

Reduction Mammoplasty or breast reduction is the surgical reduction of abnormally large breasts by removing breast tissue, excessive breast skin and repositioning of the nipple into a more normal and attractive location. Large pendulous breasts can produce neck and shoulder discomfort and therefore, reduction mammoplasty is usually covered under a health insurance policy.

Your preoperative consultation will include an inventory of the problems related to large heavy breasts including neck pain, back pain, raw areas under the breasts, and breast pain. Dense, heavy breast tissue also makes breast examination difficult. If you are suffering from these problems related to breast size, in addition to the cosmetic and figure deformities caused by large breasts, then you are a candidate for breast reduction.
Surgery for breast reduction requires rather extensive incisions in order to reduce the volume of the breast tissue in addition to reduction of the skin envelope of the breast. The nipple and areola must be lifted to a more normal position and centered over the remaining breast tissue. These incisions are carefully designed to be hidden in the natural creases and shadows of the breast. Normally scars mature and become less apparent after several months. To reduce the tension on your incisions and to help alleviate the discomfort that your breast weight causes on your sutures, a support bra is recommended. Skin tapes may be used to support the skin and to help flatten scars. You will find the bra will increase your comfort for several months postoperatively.

Complications specifically related to breast reduction include nipple and breast size asymmetries, serum and blood collections beneath your incisions and occasionally prolonged scabbing of the incisions. In very large breasts with a large nipple movement there is a possibility of nipple or skin loss. The likelihood of this increases with obesity and smoking. You must carefully consider, prior to your consultation, what your goals are and you must have a good idea as to your desired breast size. This will allow you and your surgeon to be on the same wave-length and your results to be exactly what you expected. An extremely high level of patient satisfaction is typical for the woman undergoing breast reduction.

General anesthesia is necessary for breast reduction. Depending upon your preoperative size, a blood transfusion may be indicated. If we anticipate the need to give blood you will be asked to donate a unit of your own blood at least 2 weeks prior to surgery. This will allow your body to replenish the donated blood which may be given back to you at the time of operation. This is an extremely rare occurrence.

Overnight hospitalization is usually required and will be discussed on an individualized basis. Many times the procedure is covered by insurance.

**Postoperative Care**

All restrictions and instructions pertaining to mastopexy are applicable to breast reduction.

**Quick Check**

**Postoperative Instructions**

**Reduction Mammaplasty**

**POST-OP**

**WEEK 1**

**DO:** Keep support bra on for 21 days, taking it off for baths only.
**DO:** Shower normally each day.
**DO:** Strip your drains (if they are used) every 4-6 hours and record the output for each breast separately.

**DAY 7-14**

All sutures and drains out. Continue to wear support bra.

**6 WEEKS**

**DO:** Return to normal activity.
**DO:** Wear good support bra when exercising.
**DO:** Use sunblock and prevent incision from direct sunlight for one year.

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DO NOT take any medications other than those prescribed or approved by McCollough Plastic Surgery Clinic.
This 30 year-old woman desired breast reduction not only for appearance but also to help alleviate back, shoulder and neck discomfort. The scars will continue to fade over the next 12-18 months.

Post-op Instructions for Breast Reduction Patients

Physical Activity
1. DO NOT stay in bed. Walk around. Sit in a chair. Continue to cough and breathe deeply to expand your lungs.
2. DO NOT lift arms above shoulder height for 10 days. Remember this when dressing!
3. DO NOT engage in any activity that will make you hot and perspire.
4. DO NOT lift more than 10 pounds for 3 weeks.
5. DO NOT drive until approved by your surgeon.

Personal Hygiene
1. You may shower or take a tub bath in water up to your hips. DO NOT immerse the incisions in water.
2. You may wash your hair, but avoid raising your arms above your shoulders.

Drain Care
1. If you have drains that you go home with, empty “strip” tubing and recharge drain bulb every 4-6 hours. Record output by reading amount from calibrations on bulb. Otherwise, pour into measuring cup to read amount.

Dressings
1. Change dressings daily. Place one 4x4 gauze pad over each nipple. Place two 4x4’s on any area of drainage.
2. Do not be concerned if small pieces of tape come off, but DO NOT remove clear plastic dressing. There will be a small amount of drainage on bandages daily.
3. If clear plastic dressings are on the breasts, leave on until you see your surgeon. If blisters form under plastic, peel off portion of dressing over blister and cover with Neosporin and 4x4 gauze.

Surgical Bra
1. Wear your surgical bra at all times (day and night) for 3 weeks. Then, wear the bra during the day only for the next 3 weeks.
2. Soak or wash soiled bra on “cold gentle cycle” in Tide with bleach or Woolite. Allow to air dry. Some stains may remain. Use hydrogen peroxide to lessen them.

Problems with Pain
1. For problems such as unusual increases in pain not relieved by oral medication, contact your surgeon at 251-967-7600.

Appointments
1. To schedule an appointment with a surgeon call 251-967-7600. Tell the operator you want to schedule a “postoperative appointment.”

Note:
These instructions and recommendations may vary depending upon which surgeon performs your surgery.
Breast Reconstruction

Reconstructive breast surgery is one of the most common procedures that the plastic surgeon is called upon to perform. With nearly 140,000 new cases of breast cancer annually, the number of women seeking reconstruction is at an all time high. The first major decision is timing of the reconstruction. It has become increasingly popular to reconstruct the breast at the same time as the mastectomy, thereby preventing a period of complete absence of the breast. The emotional advantages to the patients are clear, but not all women are candidates for immediate reconstruction. The advantages and disadvantages of immediate reconstruction should be discussed with both the Oncology Surgeon and the Plastic Surgeon.

The majority of breast reconstruction is delayed until after the mastectomy is performed and the wounds are all healed. If the patient does not require chemotherapy or radiation therapy, we prefer to wait three months after the mastectomy to allow the tissues to heal and soften. If chemotherapy or radiation is necessary, we encourage the patient to complete these therapies prior to beginning the reconstruction surgery.

There are many techniques available to the reconstructive surgeon looking to improve a patient’s appearance after a mastectomy. The final choice depends on patient desires, body habitus, available tissue, appearance of the opposite breast, and the health of the patient. The realistic goal of reconstructive surgery should always be the improvement of appearance and not the perfect replacement of the breast.

Implant Reconstruction

The simplest procedure is the placement of a silicone or saline implant beneath the muscle of the chest wall. Incisions can either be through the old mastectomy scar or placed at the inferior position of the newly created breast. This frequently can be done as an outpatient, but usually under a general anesthetic. The patient will usually be discharged home in a special bra which will be worn for approximately one week. There will be some limitations of arm motion for four to six weeks. Complications, while rare, can include hemorrhage, infection, asymmetry, extrusion of the implant and progressive firmness of the reconstructed breast.

Tissue Expansion

Many times the simple placement of an implant is not possible because of inadequate skin or muscle remaining on the chest wall after a mastectomy. In this case, new tissue must be created either by expansion of local tissue or transfer of a flap of skin, muscle and blood vessels. Tissue expansion is accomplished under a general anesthetic by the placement of a “tissue expander” beneath the muscle of the chest wall. Expanders initially resemble a flat balloon. The procedure is done either as an outpatient or with an overnight stay in the hospital. During visits to our office over the next four to six weeks, sterile saline is injected into the expander to stretch the surrounding tissue to the point where it will accept the proper size implant. There is some discomfort with each expansion but the patient can usually continue normal activity. Removal of the expander and placement of the final permanent implant is done during a second anesthetic as an outpatient or with an overnight stay. Patients with radiated skin or excessively thin skin are not candidates for tissue expansion. Complications are
unusual, but can include break down of the tissue during expansion, infections, bleeding, asymmetry and firmness of the reconstructed breast.

**Latissimus Dorsi Flap Reconstruction**

When the condition of the patient’s chest wall dictates the need for tissue transfer, the options include moving tissue either from the patients back or lower abdomen to replace the missing skin. The Latissimus Dorsi muscle is a broad muscle in the back which can be transferred along with a portion of overlying skin to the anterior chest. This “new” tissue along with an implant creates the new breast mound. Additionally, some patients have a Latissimus Dorsi muscle which is large enough to allow for breast restoration without an implant. This option is especially attractive for patients with a history of previous radiation to the chest wall.

While beautiful results can be expected, this procedure requires an investment of 2 to 4 hours of surgery. In the past, this procedure required hospital admission on a routine basis, but with the advent of implantable bupivacaine pumps that deliver pain medication to the wound, most patients can be discharged home after only a brief stay in the facility.

Complications can include additional scarring on the chest and back, death of the transferred tissue, bleeding, serum accumulation in the back, infection and firmness of the reconstructed breast.

**The TRAM Flap Reconstruction**

The tissue transfer technique of choice is the rectus abdominus muscle and skin flap (also known as the “tummy tuck” flap). In this procedure a large eclipse of lower abdominal skin is transferred along with an underlying muscle and artery to the mastectomy site. The major advantage of this procedure is there is usually enough tissue to build a breast without the use of an implant. In removing the tissue from the abdomen a secondary benefit is tightening of the skin of the abdominal area, thus the name “tummy tuck” flap. This is a major procedure requiring several hours of surgery and four to six days in the hospital.

Another type of TRAM Flap Transfer has been made possible because of the development of microsurgery (the use of small needles and suture to sew blood vessels together using an operating microscope). In the free microsurgical TRAM flap fat from the abdomen can literally be transplanted into the breast area. In the same way, excess fatty tissue from the hips or buttocks can also be used in women who do not have enough excess abdominal fat. Using an operating microscope, small blood vessels that enter the fat are reconnected to recipient blood vessels

Reconstruction after mastectomy in this 30-year-old was accomplished with all natural tissue from the abdomen. The second stage included reconstruction of the nipple areola.
usually beneath the arm. This restores blood circulation through the tissue and allows it to heal into place in its new position. These techniques have been remarkably successful for producing a natural and permanent reconstruction. The patient also benefits by a flatter, smoother contour of the abdomen, hips or buttocks!

Patients who are obese, diabetic, heavy smokers or who have little abdominal skin excess are not good candidates for this procedure. Complications include death of the transferred tissue, infection, bleeding and weakness of the abdominal wall.

The nipple areola complex can also be reconstructed but usually is not done at the initial reconstruction of the breast. This delay allows for more accurate positioning of the nipple on the reconstructed breast. We prefer to reconstruct the nipple with local tissue from the breast reconstruction and the areola with a skin graft from the groin or abdomen. If the color match with the opposite nipple is not acceptable, tattooing is frequently performed.

Breast reconstruction has become an equally important part of the treatment of breast cancer. Most women who undergo reconstruction feel completely “whole” and highly recommend it to other women faced with losing a breast. New implants are currently being developed to replace saline devices. These should be available within the next five years. In the meantime, natural tissue reconstruction has evolved into a predictable and safe method to achieve a natural, permanent reconstructed breast.

Breast reconstruction is one of the most rewarding reconstructive procedures a patient can undergo, many times helping a woman overcome the feelings of loss that she suffered with her mastectomy.

**The Perforator Flaps**

The current state of the art in breast reconstruction is the use of perforator flaps from the abdomen, buttock or upper back area. Using these methods, the skin and fat in those areas is elevated and transplanted to the breast area using the small blood vessels that supply the tissue with oxygen and nutrients. While the TRAM flap removes the important muscular and facial structures from the abdomen at the time of tissue transfer, the Deep Inferior Epigastric Perforator (DIEP) flap allows maximal preservation of those structures, therefore the risk of hernia and other long-term abdominal wall contour problems is reduced to miniscule proportions.

Similarly, the Gluteal Artery Perforator (GAP) and Thoracodorsal Artery Perforator (TDAP) flaps allow maximal conservation of the underlying muscular structures, with preservation of function and contour in those areas. Breast restoration with perforator flaps can be expected to yield beautiful results, although a lot more time and effort is spent in the operating suite to establish the new breast mound. The additional time spent is usually worthwhile, as the new breast is completed without the use of prosthetics and behaves and looks very much like the native breast.

Patients who are obese, smoke and have hypertension are not good candidates for these procedures. Patients who have a good amount of lower abdominal tissue, in general, will be good candidates for DIEP flap breast reconstruction. Thinner patients that do not carry enough abdominal tissue might be better suited for a GAP or TDAP flap breast reconstruction. Complications include death of the transferred tissue, infection, bleeding and revision surgery.
Skin and fat from the abdomen can be transplanted to the chest area to form new breasts. An artery and vein must be reconnected in the armpit area using a microscope.
AND ... YOU SHOULD KNOW ...

In addition to the various surgical methods of contouring the body, professionals at the McCollough Institute of Appearance and Health offers a number of non-surgical methods to improve one’s shape and health.

The highest level of nutritional and systems testing currently known to medical science is the MAX-A-LIFE™ Diagnostic program offered at the McCollough Medical Spa (pages 273-279 and pages 303-318.) The added information provided by this advanced level testing and analysis is important, not only for trained athletes and performers, but for anyone, who wants to do what he/she can to help maintain biologic and emotional balance, increase performance and endurance, and, hopefully, live a happier, healthier, and longer life.

MAX-A-LIFE™ Diagnostic includes SpectraCell testing for virtually ALL of the eighty (80) essential biologic nutrients, including most hormones, and the building blocks of protein, fat, and carbohydrate metabolism ... as well as many of the catalysts needed to convert the things we ingest into energy ... and promote health.

And, when your own body’s current levels of essential nutrients are known through appropriate testing, medical science can assist you in getting them into better balance—if indicated. This, we believe, is best achieved through a personalized fitness, nutritional, and supplement program, such as MAX-A-LIFE™.

A number of factors, including gender, age, genetics, hormone disorders, stress, exercise, etc., also cause each of us to have different dietary and supplementary needs.

The premise that, “one size fits all,” does not apply to Nutrition and Supplement Science. In order to achieve the balance necessary to feel—and be—“well,” a partnership must be developed between the individual and those he/she trusts to advise him/her. This fact underscores why it is important to measure those factors, which can be measured, and help our body help itself by giving it the things it needs ... no more ... no less. And, this is precisely, what the MAX-A-LIFE™ program is designed to achieve ... and, why those of us affiliated with it are so encouraged about as long-term potential to improve the “quality of life.”

This is the mission of the McCollough Institute for Appearance and Health—to promote a state of well-being for each person, who visits us ... whether it be for an hour ... or, over the course of a lifetime.

For more information, refer to page 17 and pages 303-318 of this book, call 251-967-7640, e-mail us at info@mccolloughinstitute.com, or check out our website www.mccolloughplasticsurgery.com