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 (sagginess) 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

Breast augmentation can truly be a psychologically rewarding procedure and go a long way in improving self image.
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.

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 Di-Gel 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 named) 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. These implants carry a deflation rate of approximately 2%. They 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.