BREAST AUGMENTATION

Implants add volume and improve the shape of the breasts. There are a variety of sizes and different shapes of breast implants and both saline and silicone are available for cosmetic enhancement. An outpatient procedure which usually takes about 1-2 hours, an augmentation is done using general anesthesia. Dr. Pautler usually chooses the submuscular position for the implant and implant type, as well as type of incision to use.

BEFORE YOUR SURGERY

Before you undergo an augmentation, Dr. Pautler will ask you to do the following:

- 1. **Bilateral Screening Mammogram:** If you are 35 or older, Dr. Pautler will send you for a mammogram. This is purely a precaution to make sure that there are no suspicious areas in your breast that may need to be followed or biopsied prior to the surgery. If there is a positive finding on the mammogram, Dr. Pautler will most likely have you evaluated by a breast surgeon before proceeding with surgery. If you have a very strong family history of breast cancer, Dr. Pautler may send you for a mammogram even if you are younger than 35.
- 2. **STOP SMOKING:** If you are a smoker, Dr. Pautler will strongly urge you to cease as soon as possible. It is important for you to stop smoking at least four weeks before and six weeks after your planned surgery. Cigarettes contain nicotine, a powerful substance that decreases blood circulation especially in the areas that need it most: surgical wounds. Wound healing is slowed, infection risk is increased, and recovery from surgery may be prolonged. Nicotine-containing chewing gums and patches are as harmful as cigarettes, so please do not use them. If you absolutely cannot curb your smoking, Dr. Pautler asks that you be honest about it and let her know because she may need to alter her surgical plan for you.
- 3. Vitamin C: This vitamin is helpful for collagen synthesis, which helps boost wound healing. It is available over-the-counter and is helpful to take two weeks before and two weeks after surgery.
- 4. **Stop taking aspirin, ibuprofen or other non-steroidal anti-inflammatory medications:** This category of drugs can increase your risk of a bleeding complication, so avoid them. Aleve, Advil, Motrin, Naprosyn, Bufferin, Anacin, Toradol and Alka Seltzer all belong to this group. It is best to run your list of medications by Dr. Pautler to see what you can and cannot take if you are in doubt. TYLENOL is OKAY to take, as are the pain medications that Dr. Pautler will prescribe for you after surgery. If you are on any blood thinners such as Plavix, Lovenox, or Coumadin, please let Dr. Pautler know, as these will need to be stopped as well. Please refrain from taking any Vitamin E or fish oil for six weeks before your surgery!
- 5. Bras: You will need to purchase a compressive sports bra for after your surgery. It is best to get one that zips or snaps in the front. You will need to bring this to your history and physical appointment and to the hospital.

- 6. **Button down tops:** You may want to gather some tops that are button down because they will be a lot easier to put on and take off as you recover from surgery. Pullovers are cumbersome and can cause discomfort at your wound sites as you raise your arms to get them on and off.
- 7. **Discontinue use of birth control pills** three weeks before surgery if you are a current smoker or if you have a history of blood clots, high blood pressure, or heart disease. Resume the birth control pills three days after surgery or when ambulating.

AFTER YOUR SURGERY

After your surgery, there are several things to keep in mind. They are:

- 1. **Refrain from aspirin and ibuprofen** as well as other non-steroidal anti-inflammatory medications and blood thinners until at least two weeks after your surgery.
- 2. **Diet:** No restrictions. You can eat what you like, provided you don't have an upset stomach from anesthesia.
- 3. Activity: Definitely refrain from any exercise or strenuous activity for the first week after surgery. This includes housecleaning, vacuuming, anything with a lot of arm movement and brisk walking. The day after surgery, it is okay to go out to dinner or a movie, or even a short trip to the store (but don't carry any heavy bags). In general, limit your lifting to no greater than 12 lbs. For those of you with small children, don't carry them. Instead have someone else put them on your lap and you can hold them. After Dr. Pautler removes your sutures (after two weeks) she will access your level of wound healing and determine whether or not you can increase your activity level. By four weeks, for most patients, restrictions are lifted, and exercise can be resumed.
- 4. **Bras:** You will need to wear your compressive sports bra for the first few weeks after surgery, including at night. After your sutures come out other bras can start to be worn.
- 5. **Smoking:** NO SMOKING FOR AT LEAST SIX WEEKS AFTER SURGERY! Dr. Pautler strongly advises that you stop smoking altogether for your overall health as well.
- 6. **Bathing:** It is okay to shower after Dr. Pautler removes the support that she places at surgery.
- 7. No vigorous sexual activity until cleared by Dr. Pautler!
- 8. **Scars:** Once your incisions are healed, there are several options you can try to improve the appearance of your scars. Inexpensive ones include cocoa butter and Vitamin E oil. Mederma is a scar cream that is available over the counter but is a little pricier. Combined with massage, these emollients can help accelerate scar softening, fading, and maturation. Silicone preparations are also available, but costly, and more suitable for patients that have a known tendency to form poor scars. Bear in mind that the way you heal and the type of scar you form are dependent on your genetic make-up and despite the best surgical technique and scar management, some patients will have poor scars. The scars involved for augmentations are fortunately very small.

9. **Dental work:** After any implant surgery, Dr. Pautler recommends antibiotic coverage prior to dental work, including cleanings and invasive procedures. If your dentist/doctor does not provide a prescription, please call our office. This is especially important for the first year.

BREAST AUGMENTATION RISKS

Surgical enlargement of the breast with a prosthetic implant is inherently a safe procedure, however, some risks are involved. The following is a list of some of the potential complications and how Dr. Pautler would go about solving any problem that could arise.

- Hematoma: It is normal to have a little bleeding around your implant from the surgery and your body will absorb this small amount. However, an excessively large amount, a hematoma, will make your breast hard, painful, blueish, and larger. If this happens, the blood will need to be removed either by a special needle (by a radiologist) or in the operating room. In this case Dr. Pautler will remove the implant, cleanse the pocket to remove the blood, and then the implant will be placed back into the pocket along with a small drain. If the blood is too much for your body to absorb, it can sit in the pocket, become infected, or cause thicker scar tissue around the implant. This is why it is important to have the blood removed when it is of such magnitude.
- 2. Capsular contracture: A capsule is the normal fibrous tissue that forms around the implant in its pocket. In most cases, the capsule remains the same size as the pocket that was made at the time of surgery. The implant sits in the capsule and remains soft. However, the capsule can shrink or contract and become thicker and tougher and the implant will therefore feel firmer. This can happen soon after the surgery or years later, in one or both breasts. What causes this to happen is unclear but some sources believe that a very low-grade infection or blood around the implant could contribute. Although not a health risk capsular contracture may make your breast feel a little harder. In severe cases, they can feel uncomfortable or actually sit a little higher on your chest wall. Minor cases usually do not need further treatment, but if severe, a procedure called a capsulectomy may need to be done. This surgical procedure removes the tight capsule and a new implant is placed. This risk of capsular contracture cannot be eliminated, but Dr. Pautler will use her best surgical technique, a sterile operating environment, and early massage of the implant to decrease the risk as much as possible.
- 3. Infection: Highly unusual, but possible. An infection around your implant would need to be treated with oral antibiotics, possibly intravenous ones as well. Mild infections will resolve but more serious ones may necessitate removal of the implant, delaying replacement for 6-8 weeks. Warning signs of a possible infection are warmth, redness of the breast, more pain on one side than the other, and non-healing of the incision. If you are contemplating any dental work before or after your implant surgery, please discuss this with Dr. Pautler as this could possibly increase your risk for infection.
- 4. Wrinkling or ripples: The implant can be visible in patients who are extremely thin, even if the implant is placed under the muscle. This is more of a positional finding (i.e.: you can see the implant in certain positions). Although not visible in clothing, implant rippling or wrinkling can be bothersome.

- 5. Implant palpability: It is normal to feel the implant at the bottom of the breast and all patients experience this to some degree.
- 6. Decreased sensation: Nerves can get cut during the surgery, so it is possible to have some numb patches after the surgery. Most of these regain sensation over a few weeks, but a permanently numb area can remain. Rarely does this affect the nipple, but it is possible. Some nerve regeneration requires one to two years.
- 7. Implant rupture: Your implant can develop a leak or rupture. With silicone implants, the recommendation to monitor possible rupture involves MRI or ultrasound studies starting three years after implantation. With saline implants, it is more obvious. In either case further surgery (implant replacement) is usually needed. Dr. Pautler has an in-office ultrasound that can help monitor implants for silent rupture.
- 8. Implant distortion: When the implant is placed under the pectoral muscle, flexion of this muscle can temporarily change the shape or flatten an implant, which resumes normal shape when the muscle relaxes. This is a normal sequela of subpectoral placement and is not harmful.
- 9. Implant displacement: This is more of a concern with shaped implants but can also occur with round implants. This refers to malpositioning of the implant from a variety of factors: trauma, lifting arms over the head too early after surgery, or implant pocket stretching from seroma or hematoma. If the displacement detracts from the aesthetic result (i.e., causes a very obvious asymmetry) additional surgery may be needed.
- 10. Asymmetry: Very few women have perfectly symmetric breasts especially in regard to nipple placement. Asymmetries can be more visible when the breasts are enlarged. Rarely an asymmetry with respect to pocket placement can occur, where one implant sits a little higher or lower than the other. Something like this may not be apparent at surgery, but may become a problem later, as healing proceeds. Minor cases can be corrected with massage or a special band worn above the higher breast. A secondary procedure may need to be done to correct the problem if conservative measures are inadequate.
- 11. Mammographic concerns: You can still receive mammograms with implants, but additional views will need to be taken. When implants are placed in the breast tissue itself, some tissue is obscured. With implants under the muscle, more tissue can be imaged, but there is always a chance that some tissue will not be visualized mammographically so continued self-breast exams are important. The presence of breast implants does not affect breast cancer risks.
- 12. Breastfeeding: Many women are able to breastfeed successfully with implants, however, there is always a chance that it may not be possible.
- 13. Loss of cleavage: Extremely rare, this complication occurs when the implant pockets actually communicate and the skin and muscle on the breastbone is lifted. It is correctable with a surgical procedure, but may necessitate temporary removal of implants or placement of post-operatively adjustable implants to allow the tissues to re-adhere to the breastbone. This risk is slightly higher

for this complication when large implants are placed on a relatively small chest or when implants in the breast tissue are removed and replaced under the muscle during the same procedure.

- 14. Loss of skin, breast tissue or nipple: Tissue death is highly unusual but possible. Either a serious infection or an underlying poor wound healing capacity is usually the cause (uncontrolled diabetes, heavy smokers). Mild cases are treated with wound care and heal well, whereas more serious cases may need revisional surgery and/or implant removal.
- 15. Seroma: This is a collection of body fluid. It is similar to a hematoma and if large and distorting to the breast, is risk for infection and/or capsular contracture. It would be treated just like a hematoma with either aspiration or surgical evaluation.

MRI Recommendations After Silicone Gel Breast Augmentation

- The FDA has recommended an MRI of the breasts at three years postop and every two years after. Please note, this is an FDA recommendation, <u>not</u> a recommendation by the American Society of Plastic Surgeons, the American Society of Aesthetic Plastic Surgeons, or the implant manufacturers.
- 2. Most silicone gel implant ruptures are silent. In other words, there are usually no symptoms.
- 3. MRI is not 100% accurate. Some intact implants may appear ruptured, and some ruptured implants may appear intact. This is not a fault of the radiologist or the MRI this is the limitation of the technology.
- 4. Over many years of research, there is no indication that a ruptured implant will cause any disease.
- 5. You must understand that because of the limits of MRI technology, you may have surgery for an implant that is found to be intact, but you will still have undergone the possible risks and complications of surgery.
- 6. In most countries outside of the United States, the equivalent of the FDA does not recommend routine follow-up of MRI.
- 7. MRI's are expensive and usually not covered by health insurance companies for the purpose of checking implant integrity. Ultrasounds are less expensive and Dr. Pautler has a unit in her office to monitor her patients' implants.
- 8. Implants DO NOT need to be replaced after 10 years if they appear intact on diagnostic imaging and the patient is satisfied with them.
- **9.** Dr. Pautler offers complementary ultrasound to her silicone implant patients ONLY FOR CHECKING IMPLANT INTEGRITY. Dr. Pautler DOES NOT PERFORM ULTRASOUND TO CHECK FOR BREAST CYSTS, CANCERS, OR MASSES.

I have read and understand the recommendations for silicone implant surveillance. _____ Initials

Patient Information - Silicone Breast Implants: Acceptance of Risk and Surgery Consent

- If signs of rupture are seen on an MRI or other diagnostic test, you should discuss your options including removing your implants with your surgeon.
- Your implants are not considered lifetime devices and you will likely need additional surgery to your breast and/or implant over the course of your life.
- You should inform your mammogram technician about the presence of implants.
- Your breast implants may interfere with your ability to breastfeed.
- You should still perform breast self-examinations monthly and should make sure you know how to distinguish the implant from your breast tissue.
- The FDA has recommended an MRI three years following surgery and then every two years after that. Our recommendation, as well as most surgeons around the country, is to visit a plastic surgeon every two years to have your implants examined. We do not routinely recommend MRI's every two years.
- Scar tissue may form around your implant called capsular contracture. This may make your breast feel firmer and somewhat painful.
- The implant companies maintain a breast implant device tracking database which will have information such as your name, address, phone number and date of birth in case they need to contact you in the future.

CAPSULAR CONTRACTURE

Dr. Pautler will use all means known to try to avoid a capsular contracture. These are some of the techniques that are used:

- Use intravenous antibiotic prophylaxis at the time of anesthetic induction.
- Avoid periareolar/transaxillary incision; these have been shown in both laboratory and clinical studies to lead to a higher rate of contracture.
- Use nipple shields to prevent spillage of bacteria into the pocket.
- Perform careful atraumatic dissection to minimize de-vascularized tissue.
- Perform careful hemostasis.
- Avoid dissection into the breast parenchyma.
- The use of dual-plane pocket has anatomic advantages.
- Perform pocket irrigation with correct proven triple-antibiotic solution of 50% (1:1 dilution) or stronger povidone-iodine.
- Clean per-incision skin and consider skin barrier or introduction sleeve.
- Minimize implant open time and replacement of implant or sizers.
- Change surgical gloves before handling and use new or cleaned instruments and drapes.
- Avoid using a drainage tube which can be a potential site of entry for bacteria.
- Use a layered closure.
- Use antibiotic prophylaxis to cover subsequent procedures that breach skin or mucosa.