Mastopexy (Breast Lift) and Breast Reduction; a letter to my patients:
In some patients requesting Breast Enhancement the tissues of the breast have become lax and saggy. The medical term for this condition is Breast Ptosis. This can occur with advancing age and as a common consequence of pregnancy, nursing and/ or weight fluctuations. Breasts progressively hang lower and lower on the chest with loss of upper breast projection (perkiness), elongation and flattening. In some cases, the nipples point straight down. These changes are also very common in patients with breasts that are very large.

Conceptually, the basic problem with ptotic (saggy) breasts is that the supporting elements of the breast are weak and stretchec. There is, as a result, too much skin for the amount of breast tissue present. Along with this problem, the nipple has come to rest lower on the chest wall. With early stages of breast ptosis, a breast implant may be able to make up for the volume deficit in breast tissue. However, in many women, the nipple and remainder of the breast has fallen too far down the chest to allow a simple implant to give an aesthetically pleasing result. In these women, some form of breast lift (Mastopexy) is indicated. In these women, if you only performed breast augmentation, the result would be an implant in the normal breast location with the nipple and breast appearing to have slipped off the front of the normally placed implant. Occasionally the argument is made that you can place the implant above the muscle to minimize this appearance. That occasionally works. However, all too often what develops instead is a "rock-in-a-sock" appearance, which, in my opinion, is totally unacceptable. It is also very difficult to fix and may require multiple operations to improve.

In the case of breasts that are too large, similar changes to the skin and nipple position usually occur. Conceptually, the techniques of Breast Reduction are similar to Mastopexy. The main difference is that in Reduction, breast tissue is removed to fashion a more pleasing size, shape and possibly relieve symptoms associated with the increased weight of tissue on the chest. Many patients with overly large breasts suffer from back and neck pain and problems with skin rashes. Not to mention that leading a healthy and active lifestyle is nearly impossible when you have a "ball-and-chain" around your neck. Finally, there can be many social burdens with having overly large breasts.

Because of the anatomical changes described above, Mastopexy and Breast Reductions procedures are designed to remove the extra skin (+/- the extra breast tissue) and reposition the nipple to its normal aesthetic position. There are several different techniques utilized in Breast Lifts and Breast Reduction. One way to compare these techniques is by their resulting scars. This brings up a very important understanding that every woman interested in mastopexy or breast reduction must accept. Because a significant amount of skin is removed and the nipple is repositioned, no matter which technique is used, the result includes a visible scar that is permanent. This is a real compromise (a scar versus a saggy and/ or large breast) that women undergoing mastopexy and breast reduction understand and are usually eager to make. **If a visible scar is completely out of the question for you, you are not a candidate for mastopexy or reduction, period.** The only exception to this is in patients that have a small amount of enlargement that may be candidates for reduction via liposuction alone. As common sense would predict, this usually worsens any ptosis and produces a more saggy and bottomed-out breast.

The classic technique of Mastopexy and Breast Reduction requires a scar that resembles an "anchor." This scar is located around the areola (pigmented part around the actual nipple), down the front of the breast and along the fold under the breast. At the time of this writing, most Plastic Surgeons continue to use this technique because they were initially trained using this technique and it gives a reliable and safe result. It is still the gold standard for comparison within the Plastic Surgery community and many excellent results have been achieved. The concept of this technique is to remove skin in such a way as to create a new "skin brazier" into which the resulting breast tissue is placed. The result, therefore, relies upon the skin to provide the desired conical shape. Relying on the skin for the result can be a negative because, after all, what contributed to the problem in the first place was the stretchy skin. Because of this and the fact that it requires a large scar, other methods of Mastopexy and Breast Reduction have been developed that may represent a better option. However, in women with severe ptosis and massively enlarged breasts, anchor mastopexy/ reduction continues to be the preferred method.

Because of the concerns of requiring a large scar and issues of recurrence, newer techniques of "minimal scar" mastopexy and breast reduction were developed. Not all women are candidates for these techniques, but many are.

Some women seeking to enhance their ptotic breast also desire to increase their cup size. In selected cases, the scar for mastopexy with enlargement can be limited to around the areola. This technique is called a Binelli (Donut) Mastopexy after Louis Binelli, the French Plastic Surgeon who described it. Unlike standard breast augmentation scars that are nearly undetectable, the scar that results from Binelli Mastopexy is visible and premanent. In essence the way the procedure is done is by incising a circle around the areola and leaving the nipple attached. A larger circle is then fashioned and all the skin inside the "donut" is removed. The two circles are then brought together by placing a "purse-string" in the outer circle and tying it. This allows the scar to remain at the areolar margin. However, because there is a mismatch between the two circles, the resulting scar widens a little bit and is visible. Also there tend to be folds or pleats near the areola that may persist for months and rarely are permanent. One of the downsides of Binelli Mastopexies is that it tends to flatten the breast when you tie the purse string suture. Therefore, I don't usually employ this technique for women desiring to stay the same size or even become smaller. However, as long as the woman's breast is not too heavy, it may be the preferred technique in women with ptosis who want to be larger.

One aspect of all minimal scar techniques is that they can take a while to settle and assume a normal shape. In addition to having a flat frontal area, Binelli Mastopexies can also look "boxy" for an extended period of time (occasionally 6 to 12 months in some instances). Therefore, you may need to be very patient with the shape and areolar pleating as the result matures during the first 3 to 6 months.

A third technique was pioneered in the early 1990's by Madeline Lejour, a Belgian Plastic Surgeon. She developed a procedure that used internal sutures and tissue flaps to reshape and reposition the breast into a more youthful appearance. This was a great advance because the results were more long-lasting and natural. It also gave Plastic Surgeons a new powerful technique to improve results. Over the years, I incorporated further improvements and call the procedure Vertical Mastopexy. This technique is very different than the standard anchor scars or Binellis in that the final result is not solely determined or dependent upon the breast skin. Remember that one disadvantage of standard anchor incisions is that the result depends upon the skin, which was the problem in the first place. Vertical mastopexies (and reductions) differ in that the breast tissue itself is molded into a better cone of tissue, which is secured with internal sutures and then suspended up higher on the chest wall. The result is not completely determined or dependent on the overlying skin. Therefore, it may be possible to limit the scar to around the areola and down the front of the breast ("lollipop"). Also, since we are fashioning a new breast cone, the result can be more natural and tends to last longer with a decreased incidence of recurrence. Because of these factors, the technique of Vertical Mastopexy is my preferred method for correcting moderate to severe breast ptosis. It is remarkably versatile that allows the use of a Breast Implant to improve contour and volume in those patients desiring Breast Augmentation and Lift in the same surgery. However, in some patients, due to the large amount of redundant skin, a lower horizontal scar is still necessary to prevent permanent bunching up of the lower breast skin. This scar is nearly always shorter than the old technique of skin-only anchor mastopexy.

Remodel (Reduction) Breast Lift Augmentation, The Newest Evolution: After 15 years of practice I noticed that the results of Breast Lift could be remarkably improved by removing some breast tissue and using an appropriately sized implant to effectively transition the volume of the breast to a higher position. This is because as larger breasts become saggy, the bulk of the tissue becomes located far down the chest and stomach area. Since the supporting tissues are so weak, regular Mastopexy is incapable of relocating this tissue higher on the chest and maintaining the result. These patients developed a bottoming out of the breast tissue with the nipple appearing too high and pointing upward. To solve this inadequately treated soft tissue sagginess and poor breast shape, I have developed a technique I named "Remodel (Reduction) Breast Lift Augmentation". It is really a combination of several techniques that I utilize to artistically reach the desired result. The name is not commonly used by other Plastic Surgeons or on the Internet. I should probably publish the work, but I've been too busy and don't care to be that famous. I will say that since incorporating the element of removing breast tissue from where I don't want it and replacing it with an implant where it needs to be, the results have been the best I have ever seen. In selected patients who are good candidates, I will recommend this technique to give the best possible result.

In all of the above techniques, but especially the limited scar techniques, it may take time for the finished result to be apparent. Usually the majority of the settling and resulting shape occurs in 6 to 8 weeks. However, in some patients it may take 6 months and, rarely, as much as one year. Therefore, it is important for women undergoing breast lifts and reductions to be patient with the maturation process.

Mastopexies and Breast Reductions are typically preformed on an outpatient basis under general anesthesia. Most patients can return to work in 7 to 10 days and normal activity in 2 to 3 weeks. You will generally need to be seen the day following surgery, at ten days and at 2 months after surgery.

ACCEPTED RISKS AND COMPLICATIONS:

Although all routine cosmetic surgical procedures have low complication rates, it is always important that you understand the standard potential risks and complications so you can make an informed decision as to whether or not to proceed with surgery. I joke with my patients and tell them that I have to scare them before I operate on them. The reality is, however, that even if the risk is one in a 100,000, if it happens to you it is 100 percent for you. Below is a list of the commonly accepted risks and known complications of Mastopexy and Breast Reduction. Although this is a long list and may make you pause, it is by no means complete because some reported complications are exceedingly rare and the list would be pages and pages if all of them were included. The following are the accepted risks and complications that Plastic Surgeons may expect to potentially occur after this surgery.

ACCEPTED RISKS AND COMPLICATIONS OF MASTOPEXY AND BREAST REDUCTION:

BLEEDING: Bleeding is a potential risk of any operation. The chance of needing a blood transfusion from a mastopexy or breast reduction is small. If a collection of blood occurs under the skin, it is called a hematoma. If you get a significant hematoma, you may need to go back to the Operating Room to have it removed. You cannot heal properly with a significant hematoma. The risk of having a significant Hematoma in my practice is less than 2 percent.

INFECTION: Infection is a potential complication of any operation. Although every effort is made to prevent any infectious complications including use of intravenous antibiotics and giving postoperative antibiotics by mouth, infections can still occur. Infections may require additional surgery or hospitalization and may have a negative impact on healing and ultimate outcome.

SUTURE COMPLICATIONS: Problems can arise with any operation with regard to suture infections or extrusions (work their way out of the skin and cause an infection or ulceration). This can be especially problematic with Binelli Mastopexies because much of the result depends upon the purse-string suture. If this suture becomes exposed or infected, it must be removed to prevent further complications. Removal of the suture before 8 months can result in the areola widening and becoming too large. This is also true if the suture breaks prematurely. Suture failures will usually require revisional surgery after the infection is resolved. This occurs with an incidence of less than 5%. Although most sutures that are placed under the skin are dissolvable, the purse-string suture is permanent to prevent stretching of the areola. Therefore it is common to be able to feel the suture through the skin. In extreme cases of palpability (being able to feel the suture) it may be required to remove the suture after the breast is completely healed (after 8 to 12 months).

SENSORY CHANGES: It is inevitable with any operative site that **sensation in that area will change.** Whether the surgery is an appendectomy, hernia or a breast surgery, the area of surgery will change in the way it feels. Any patient may experience loss of feeling or numbness, tingling, burning sensations, twingy, shooting, aching or sharp pains. Most of these sensation changes will be short-lived and resolve on their own, but they can be permanent. Thankfully, these sensations are rarely permanent.

SCARRING and POOR HEALING: Although every effort will be made to make the incisions and resulting scars as minimal as possible, visible scars are the rule with Breast Lifts. Occasionally there can be some asymmetry in their position or shape and size of the resulting nipple-areola areas. Occasionally re-operation is required to revise scars or make the breasts more symmetrical.

WOUND HEALING COMPLICATIONS:

There are many factors that are crucial to normal post-operative wound healing. These include but are not limited to nutrition, hygiene, age, medical diseases, tobacco use and the unique genetic make up of each person. Some of these factors we can control and others we cannot. Our responsibility (the patient's and the doctor's) is to be committed to

optimizing these factors as much as possible before surgery so as to minimize the chances of post-operative metabolic and wound complications. If these negative factors are too great, Dr. Hause will probably determine that you are a poor surgical risk and not a candidate for surgery. Although it may be stating the obvious, wound healing is a very complex and miraculous process that depends on the normal functioning of many steps. When these mechanisms are not normal, it can result in delayed healing, wound breakdown with tissue necrosis (tissue death and very prolonged healing), localized or invasive infection, severe scarring and deformity, prolonged hospitalization and rarely permanent disability or death. Dr. Hause's task is to reasonably identify and gauge each of these factors and make a medical determination of the relative risks to you as a patient. As the patient, your responsibility is be as honest as possible when reporting medical conditions, use of medications, drugs and tobacco, and habits of nutrition and hygiene. Failure to adhere to reasonable standards can put patients at much greater risk of wound and metabolic complications. However, even healthy patients whose controllable factors are optimal can suffer wound and healing complications.

Nutrition: Good nutrition is a prerequisite to good health and especially to healing. Extremes of poor nutrition, whether a person is too thin or obese can have a major impact on healing. Patients who have lost a large amount of weight or those who are on an **aggressive weight loss diet (Before or immediately after surgery)** are particularly prone to malnutrition and resultant poor healing. Obese patients are also a risk for wound complications due to the decreased relative blood supply in fatty areas. Obese patients also are at higher risk for Respiratory, Cardiac, bleeding, blood clotting and anesthesia complications.

Hygiene: Although it may be stating the obvious, the cleaner you are, the faster and better you heal. Poor hygiene results in more inflammation, possible infection and delayed healing.

Age: The older a patient is, the less robust is the response to surgery and healing. Interesting, this same decrease in healing may result in less conspicuous scars.

Medical Diseases: (steroids) and Diabetes: Any chronic medical disease may adversely impact wound healing. Diabetes is well known to prolong the healing process and have higher risks of wound healing and infection. Those diabetics who are not in tight control with relatively normal blood glucose level are at markedly increased risks and will usually not be candidates for elective cosmetic surgery. Patients with lupus or other illnesses that require steroids for treatment may be at greatly increased risks for surgery and healing.

Tobacco Use: A recent study reported that the three most important controllable factors that can increase a person's lifespan is to exercise 30 minutes a day, wear their seat belt in a car, and not smoke. By far the most important of those is not smoking. Besides the known chronic health risks of smoking, tobacco smoke does several things that specifically impair healing. First, nicotine causes blood vessels to constrict which results in less blood going to healing tissues. Second, cigarette smoke has high concentrations of Carbon Monoxide, a serious blood poison. Carbon Monoxide binds to the hemoglobin in red blood cells and prevents it from carrying oxygen. So in essence, smoking causes less blood to be delivered to the very metabolically demanding healing tissue and once that smaller amount of blood arrives, it has greatly decreased oxygen to power the healing process. Some patients ask me if decreasing the number of cigarettes makes a big difference. Since the effect of one cigarette lasts over 6 hours, the obvious answer is no. Patients must stop all smoking for at least 3 days prior to surgery and for at least 3 weeks afterwards. Smokers are still at risk for the chronic effects of smoking, but actively smoking immediately before and after surgery is doubly bad.

Genetics: Much of the healing potential for a specific patient is genetically determined. Genetic predisposition controls whether or not a person develops keloid or hypertrophic scars, may have prolonged bruising or other healing abnormalities. There are some rare genetic diseases such as Ehlers- Danlos syndrome, Marfan's syndrome and others that may impair post-operative healing. If you are known to have any genetic illnesses, it is critical that you inform Dr. Hause during your consultation.

BREAST CANCER: In our country the instance of breast cancer is one in eight women during their life-time. This is an unfortunate fact. Mastopexies and Breast Reductions have no effect on the incidence or detectability of breast lesions. However, for several months the breasts may be firm and swollen which can make physical exams more difficult.

DELAYED HEALING AND FAT NECROSIS: Occasionally (less than 5 percent), patients that undergo Mastopexy or Breast Reduction can have delayed healing and/ or a condition called Fat Necrosis. This occurs when a small area of the breast loses its blood supply as a result of the surgery. The tissue that is affected must be absorbed by the surrounding breast tissue and this can take several months. During this time, the area affected becomes very hard and can make patients fearful about breast masses and cancer. This is nearly never the case and

the mass resolves over several months. On the two occasions I have seen this complication, it has resolved in a few months. If this occurs it is my policy to see you frequently to make sure it resolves and is of no consequence to your health or result. Occasionally these areas of fat necrosis can result in calcifications that are visible on a mammogram These calcifications typically look very different than calcifications associated with cancer but may require biopsy if the diagnosis is in question. Rarely, an area of the incision can open up after surgery and may require a prolonged time to completely heal.

SKIN AND NIPPLE LOSS: As a consequence of poor healing, infection, smoking or chronic medical illness, loss of breast tissue, skin and even, rarely, part or all of the nipple can occur. This may require prolonged healing time and additional reconstructive surgery to improve the result. At the time of this writing, nipple loss has not occurred in our practice but is a known rare complication of any breast surgery.

BREAST ASYMMETRY: It is common for women to have one breast that is larger or in a different position and shape from side to side. This is actually the norm and not the exception. Every effort will be made to minimize this asymmetry, but there will probably be residual asymmetries after the surgery.

BREAST INDENTATION AND DEFORMITY WITH ANIMATION: Because scar tissue is inevitable with any surgery, dimples and changes of breast shape may occur with motion of the chest or arm muscles

RECURRENCE OF BREAST PTOSIS: The process of tissue aging and laxity is progressive throughout life. Occasionally breast ptosis may progress to a point that re-operation is necessary to maintain or improve the result.

NEED FOR ADDITIONAL SURGERY: Many aspects of healing from surgery are unique to each individual. Occasionally additional surgery and/or revisions are required to improve upon an initial result.

LIFE-THREATENING AND FATAL COMPLICATIONS : With any operation or anesthetic there rarely can be severe complications such as collapsed lungs, heart attacks, blood clots with pulmonary embolism, shock and even death. These complications are exceptionally rare. “Knock on Wood”, none of my patients have ever required hospitalization or died from any of these types of catastrophic complications.

STANDARD ANESTHETIC RISKS: The administration of any medication has some amount of risk. Although every effort is made to minimize these risks, adverse reactions and side effects can not always be prevented. Complications of anesthesia can be as mild as slight dizziness or nausea to more profound abnormalities. Although rare, hospitalization may be necessary to control and/or treat any potential complication. Any patient undergoing general anesthetic has a 1 in 200,000 chance of catastrophe and death. However this risk is small enough to say that it is safer to have general anesthetic than get into an automobile. It is not risk free, but severe complications are rare.

ALTERNATIVES TO BREAST LIFT AND REDUCTION SURGERY: One alternative to any elective cosmetic surgery is to choose to not do it. Weight reduction can be effective in reduction in breast size, but this commonly worsens breast ptosis (sagging). To date, there have not been any non-surgical, herbals, nutriceuticals or external device treatments that are very effective at improving breast ptosis or massive breast enlargement.