Novel breast implant options continue to enter the US marketplace adding flexibility as well as complexity to surgical decision making. However, the basic concepts of round vs. shaped, and textured vs. smooth implants remain key elements within the treatment algorithm. This white paper looks at two significantly different Mastopexy-Augmentation patient populations (pseudo-ptosis and glandular ptosis after weight loss) with the intention of enabling surgeons to better understand the versatility and unique properties of shaped implants and how they can deliver practice-differentiating results.

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From 2014 to 2015 primary breast augmentation cases declined 2% while mastopexy procedures increased by 7%.

ABSTRACT

Novel breast implant options continue to enter the US marketplace adding flexibility as well as complexity to surgical decision making. However, the basic concepts of round vs. shaped, and textured vs. smooth implants remain key elements within the treatment algorithm. This white paper looks at two significantly different Mastopexy-Augmentation patient populations (pseudo-ptosis and glandular ptosis after weight loss) with the intention of enabling surgeons to better understand the versatility and unique properties of shaped implants and how they can deliver practice-differentiating results.

INTRODUCTION

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Two of the more challenging scenarios breast surgeons commonly face are the augmentation of breasts with pseudo-ptosis as well as those with glandular ptosis in patients who have experienced significant weight loss. Various techniques have been described to correct these deformities. They often involve a variety of mastopexy procedures aimed at reducing and/or tightening the skin envelope to help reposition the breast tissue on the chest wall in combination with the placement of a breast implant. Although round gel implants may prove effective, there are many cases in which a textured shaped device may provide a superior and longer lasting result.

In our practices, we have found that shaped implants alone can often adequately address mild ptosis eliminating the need for a mastopexy altogether. Additionally, shaped implants are helpful in treating patients with more significant ptosis who do also require a mastopexy. Having had an opportunity to use MENTOR® MemoryShape® Breast Implants (known as CPG outside of the US) over the past 17 years we have become acutely aware of the virtues of form stability and MENTOR® SILTEX® Texture. The combination of this highly cohesive gel and micro-texture allows these devices to “define the shape of the breast”, rather than allowing the external soft tissue forces to define the shape of the implant. These features make MemoryShape Implants a very powerful tool.
In mildly ptotic patients the inherent shape of the implant, with higher volume distribution in the lower pole, stretches the overlying tissues and forces them to conform to the more anatomical shape of the implant. This provides a gentle upper pole slope with maximal projection extending from the nipple down towards the IMF. As a result, they can very effectively correct the ptotic appearance of the breast while providing the requested volume increase. In some patients, with somewhat greater degrees of ptosis, placing a submuscular MemoryShape Implant through an IMF incision, and then performing a periareolar mastopexy, can produce exceptional results. Or in patients whose areolar diameter allows for an adequately sized incision the implant placement and the purse string mastopexy may be performed through the same periareolar incision.

A key technical point is the manner in which the pocket is created. Although round gel devices may be used effectively in pockets that exceed the dimensions of the chosen implant this is not the case with shaped implants. These require a pocket that provides a hand-in-glove relationship with the implant to hold it in its desired position. The SILTEX Texture provides the needed coefficient of friction and Memory-Shape Implants impart a very youthful feel to the augmented breast and are more likely to hold their position and not drop over time. This is in direct contrast with smooth round devices which are more likely to drop or move in an undesired direction in these patients. The question becomes what degree of texturing is necessary to achieve this end?

In order to minimize the chance of implant rotation, all shaped implants require some degree of texturing. This creates the necessary shear force, or frictional effect, to hold the implant in place. SILTEX Texture has not been shown to promote tissue ingrowth (as this is not necessary to stabilize the implant's position) and its unique surface characteristics limit many of the problems more commonly associated with macro-texturing. It does, however, provide an appropriate amount of rotational resistance so that, in a properly crafted pocket, rotation is extremely unlikely to occur.

Through the following cases we hope to showcase the type of results that can be achieved using MemoryShape Implants in a range of patients with breast shape issues ranging from pseudo-ptosis to severe ptosis.
CASE 1: Augmentation with Ptosis Camouflage

This 48 y/o woman presented with glandular ptosis and volume deficiency. As is often the case she requested that both elements be corrected in one procedure with the minimum amount of scarring possible.

Her pre-op measurements were as follows: Suprasternal Notch to Nipple: 21cm; Width: 12cm IMF to Nipple (Under stretch): 8.5cm (Left) 9cm (Right).

SURGICAL TECHNIQUE:

After a standard prep and drape, nipple shields were placed and through a midline inframammary approach dissection was carried down to and through Scarpa’s fascia and the submuscular plane was entered. The muscle was released only to the 5 o’clock and 7 o’clock positions. The pocket dissection was limited to allow the placement of a smooth, shaped sizer with the above described hand-in-glove relationship between the implant and the pocket.

Preliminary implant style and size selection had been made based on preoperative breast dimensions and patient preference. Desired breast width was the most important factor in this selection process. If the smooth-shelled sizer fits the pocket properly the textured shaped implant will fit even more tightly in the pocket. Great care was taken to not overdissect the pocket. After a final check for hemostasis, copious evidence-based antibiotic irrigation was performed. The breast was re-prepped with Betadine and an Ioban sheet was used to cover the entire breast. The Ioban film was incised and a 350cc TM+ MemoryShape Implant was placed with a limited-touch technique. In this case a dual plane I partial submuscular implant placement was utilized. After positioning the chosen MemoryShape Implant (utilizing the orientation marks on the device), and assuring that it was completely unfolded and lying smoothly on the chest wall, 3-0 Vicryl sutures were used for the deep closure taking solid bites of Scarpa’s fascia on the undersurface of the superior skin flap and incorporating a bite of the thoracic fascia and Scarpa’s facia along the lower edge of the incision. The remainder of the closure was performed with 4-0 Vicryl and a running 4-0 Monocryl. Five (5) year post-op results are shown.
CASE 2: Augmentation with Glandular Ptosis Correction

This 45 y/o woman presented with glandular ptosis and involutional changes in her breasts following several pregnancies.

Her pre-op measurements were as follows: Suprasternal Notch to Nipple: 19.5cm; Width: 12cm; IMF to Nipple (Under stretch): 7.5cm

External sizers were utilized during the consultation and based on this the patient chose an implant in the 300cc range. Her breast width of 12cm made her an ideal candidate for a 295cc MM+ MemoryShape Implant. Her stretched Nipple to IMF distance of 7.5cm allowed the incision to be placed directly in the native inframammary fold. The implant placement and closure were as described in Case #1. Five (5) year post-op results are shown.

CASE 3: Pre- and Intra-Operative Ptosis

This 49 y/o requested a volume increase as well as correction of the involutional changes in the upper pole of her breasts. She stated that after breast feeding her breasts became “droopy” and decreased in size.

Her pre-operative measurements were as follows: Suprasternal Notch to Nipple: 19.5cm (Right) 20cm (Left); Width: 12.5cm IMF to Nipple (Under stretch): 7.5cm

Following the surgical technique described above a 295cc MM+ MemoryShape Implant was placed bilaterally. The pre-op and intra-operative photographs show the immediate correction of this patient’s glandular ptosis.
CASE 4: Massive Weight Loss Augmentation Mastopexy

This 43 y/o woman presented for breast augmentation following a 95 pound weight loss. She was noted to have thin breast tissue with ptosis.

Her measurements were as follows: Sternal Notch to Nipple: 27cm (Right) 27cm (Left)
Width: 14.5cm and 13.5cm; IMF to Nipple (At rest) 8.5cm and 11.5cm (Under stretch), Ptosis 4cm

Her situation was addressed using a combination of breast augmentation with mastopexy. The ability of MemoryShape Implants to predictably maintain position was seen as advantageous in this situation, given that massive weight loss patients frequently face challenges supporting the weight of a breast implant.

SURGICAL TECHNIQUE:

In single-stage augmentation mastopexy, the implant can be placed using an inframammary approach followed in sequence by the breast lift. Alternatively, the lift incisions can be used for access for device placement which was the approach used in this patient. The nipple areolar complex was demarcated, deepithelialized, and transposed to the planned location. Through the space created, access was gained directly down through breast tissue to the lateral border of the pectoralis major muscle. Following copious irrigation with evidence-based antibiotic solution, the subpectoral space was entered and a dual plane partial subpectoral pocket was created in a preliminary fashion. This preliminary pocket is ALWAYS smaller than the dimensions of the anticipated ultimate implant. The ideal width of the patient's breast and potential optimal width of the tissue pocket were assessed and measured. This led to the selection of the 475cc MM+ MemoryShape Implant. The dimensions of the implant pocket were then modified to precisely match the height and width dimensions of the device chosen. The pocket was irrigated with antibiotic solution, following which the device was placed with correct orientation using an insertion sleeve. The correct orientation of the device was confirmed. The anterior and posterior surfaces of the device were confirmed to smoothly conform to the ribcage posteriorly and muscle/breast tissue anteriorly without folds or wrinkles. 10 Fr Blake drains were placed along the IMF with low posterior exit sites, separate from access incisions. A vertical mastopexy was then performed using a tailor tack approach, creating a profound tightening of her thin tissue onto the form-stable implant. After completing an identical procedure on the contralateral side, tissue was excised within the tailor tack markings and closed using 2-0 Vicryl in the deep Scarpa's fascial layer, followed by 2-0 vicryl and 3-0 PDS in the deep and more superficial dermal layers. BIOPATCH® Protective Disk with CHG devices with occlusive dressings were placed over the drain sites, followed by a pressure dressing. It is important to note that this approach depends on liberal use of evidence-based antibiotic irrigation to the breast tissue and pocket to decrease exposure of the device to breast tissue bacterial flora during placement. 18 Month post-op results are shown.

CASE 4:
MENTOR® MemoryShape®
Breast Implant MM+, 445cc
Pre-op

18 Months post-op
Louis L. Strock, MD
CASE 5: Postpartum, Weight Loss Augmentation Mastopexy

This patient is a 30 y/o woman who presented for breast enhancement. She had one child with a long course of breast feeding and a postpartum 25 pound weight loss. She requested a larger volume with improved shape. Her exam showed low and loose tissue with significant ptosis.

Her measurements were as follows: Sternal Notch to Nipple: 27cm (Right) and 27.5cm (Left) Width: 14.5cm and 14cm; IMF to Nipple: 11cm (Rest) and 15cm (Under stretch), Ptosis 5cm

Her situation was addressed with a combination augmentation mastopexy. A MemoryShape Implant was chosen to lessen unwanted device movement and provide a form-stable device onto which her tissue could be lifted and shaped. She requested a conservative approach to device size selection, leading to use of the 245cc Medium height, Moderate projection, Style MM MemoryShape Implant. As shown with the preceding case, the approach selected utilized the lift incisions for access for device placement and closures were as described in Case #4. 32 Month post-op results are shown.

CONCLUSION

With the introduction of MENTOR® MemoryShape® Breast Implants a powerful new tool has been added to our surgical armamentarium. These implants have wide application in primary and revisional cosmetic and reconstructive breast procedures. They offer a unique combination of features which provide a low incidence of capsular contracture, an impressive ability to “shape” the overlying soft tissues and, as these cases demonstrate, are very effective at dealing with varying degrees of breast ptosis delivering results that last.
REFERENCES

DISCLAIMER:
This white paper has not been subject to independent peer review. This white paper includes a demonstration of the use of a surgical device; it is not intended to be used as a surgical training guide. Other surgeons may employ different techniques. The steps demonstrated may not be the complete steps of the procedure. Individual surgeon preference and experience, as well as patient needs, may dictate variation in procedure steps. Before using any medical device, including those demonstrated or referenced in this white paper, review all relevant package inserts, with particular attention to the indications, contraindications, warnings and precautions, and steps for use of the device.

IMPORTANT SAFETY INFORMATION:
MENTOR® MemoryGel® Breast Implants, MENTOR® MemoryShape® Breast Implants, and MENTOR® Saline-filled Breast Implants are indicated for breast augmentation in women (at least 22 years old for MemoryGel® Implants and MemoryShape® Implants, and 18 years old for Saline Implants) or for breast reconstruction. Breast implant surgery should not be performed in women with active infection anywhere in their body, with existing cancer or pre-cancer of their breast who have not received adequate treatment for those conditions, or who are currently pregnant or nursing.

Breast implants are not lifetime devices and breast implantation may not be a one-time surgery.

The most common complications for breast augmentation and reconstruction with MemoryGel® Implants include any reoperation, capsular contracture, and implant removal with or without replacement. The most common complications with MemoryShape® Implants for breast augmentation include reoperation for any reason, implant removal with or without replacement, and ptosis. The most common complications with MemoryShape® Implants for breast reconstruction include reoperation for any reason, implant removal with or without replacement, and capsular contracture. A lower risk of complication is rupture. The health consequences of a ruptured silicone gel breast implant have not been fully established. MRI screenings are recommended three years after initial implant surgery and then every two years after to detect silent rupture.

The most common complications with MENTOR® Saline-filled Implants include reoperation, implant removal, capsular contracture, breast pain, and implant deflation.

For MemoryGel® Implants, patients should receive a copy of Important Information for Augmentation Patients about MENTOR® MemoryGel® Breast Implants or Important Information for Reconstruction Patients about MENTOR® MemoryGel® Breast Implants. For MemoryShape® Implants, patients should receive a copy of Patient Educational Brochure – Breast Augmentation with MENTOR® MemoryShape® Breast Implants or Patient Educational Brochure – Breast Reconstruction with MENTOR® MemoryShape® Breast Implants, and a copy of Quick Facts about Breast Augmentation & Reconstruction with MENTOR® MemoryShape® Breast Implants. For MENTOR® Saline-filled Implants, patients should receive a copy of Saline-Filled Breast Implants: Making an Informed Decision. Your patient needs to read and understand the information regarding the risks and benefits of breast implants, with an opportunity to consult with you prior to deciding on surgery.

The ARTOURATM Breast Tissue Expander or CONTOUR PROFILE® Breast Tissue Expander can be utilized for breast reconstruction after mastectomy, correction of an underdeveloped breast, scar revision, and tissue defect procedures. The expander is intended for temporary subcutaneous or submuscular implantation and is not intended for use beyond six months. Do not use the ARTOURATM Tissue Expander nor CONTOUR PROFILE® Tissue Expander in patients where an MRI may be needed. The device could be moved by the MRI causing pain or displacement, potentially resulting in a revision surgery. The incidence of extrusion of the expander has been shown to increase when the expander has been placed in injured areas.

For detailed indications, contraindications, warnings, and precautions associated with the use of all MENTOR® Implantable Devices, which include MENTOR® Saline-filled Implants, MemoryGel® Implants, MemoryShape® Implants, ARTOURATM Expanders, and CONTOUR PROFILE® Expanders, please refer to the Product Insert Data Sheet provided with each product or visit www.mentorwwllc.com.

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