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Previsualization takes guesswork out of augmentation/mastopexy surgery

By Rochelle Nataloni

A modified version of conventional augmentation/mastopexy surgery enables Philadelphia cosmetic surgeon Ted S. Eisenberg, D.O., to reduce surgical time and anesthesia while consistently achieving predictable results and high patient satisfaction in cases of moderate-to-severe ptosis — regardless of implant size used or the amount of skin resected.

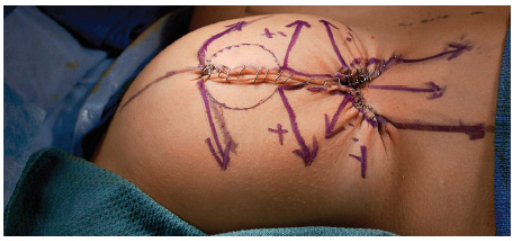
Dr. Eisenberg is associate professor of surgery in the division of plastic surgery at the Philadelphia College of Osteopathic Medicine. He developed a technique that enables him to actually see what the end result of the operation will look like before making a single incision.

Dr. Eisenberg had been in practice for 19 years before developing this technique, and he had been performing breast surgery exclusively for five years prior to his innovation. "I had one of those 'Aha' moments, where I thought: Instead of cutting the tissue away and then tacking it back together and then trimming it, what if I tacked it together first?" Dr. Eisenberg says.

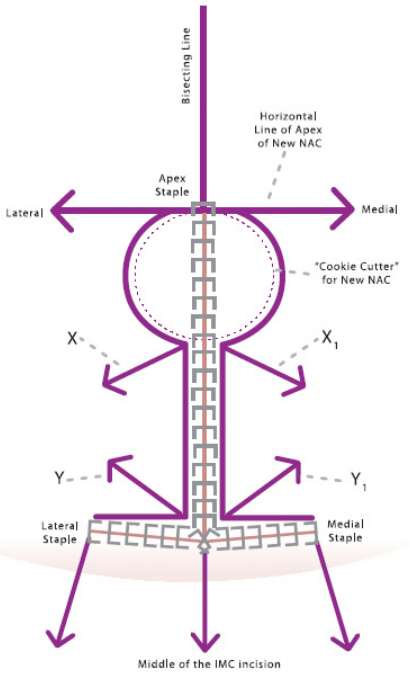
STAPLE FIRST Dr. Eisenberg says his 'Staple first' technique, which is based on the adage "Measure twice, cut once," provides maximum tightening of the redundant breast tissue and allows him to previsualize the new breast shape and symmetry before the scalpel is raised for a one-stage skin resection. "I believe this is a more precise approach than the standard technique of drawing a pattern, resecting skin and then tailor-tacking the tissues together," he says.

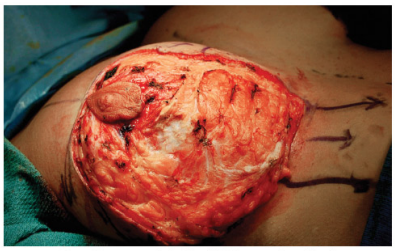
HOW IT'S DONE First, Dr. Eisenberg performs some initial markings with the patient in the sitting position, but he uses those markings simply as guide points (as opposed to using them as a pattern). "When the patient is under anesthesia, I use these guide points to essentially sculpt the breasts by tightening the tissues with surgical staples. Once all of the staples are in place and the breasts are tight and symmetric, I mark the outline of the staples and then remove the staples. I then follow these markings and resect precisely the amount of skin that needs to be removed in one shot," he says.

The greatest benefit of this technique, Dr. Eisenberg says, is that it eliminates the need for multiple trimmings. "Instead of drawing the actual inverted-T pattern, I staple only the apex of the nipple areolar complex and the medial and lateral points of the inframammary crease, and I use these three points as the starting points of my stapling," he says. "By eliminating the need for multiple skin trimmings, the procedure is quicker, and it offers an extra level of confidence that the tissues will come together, that the vascular supply of the tissues won't be compromised, and that the breasts will be symmetric," he says.

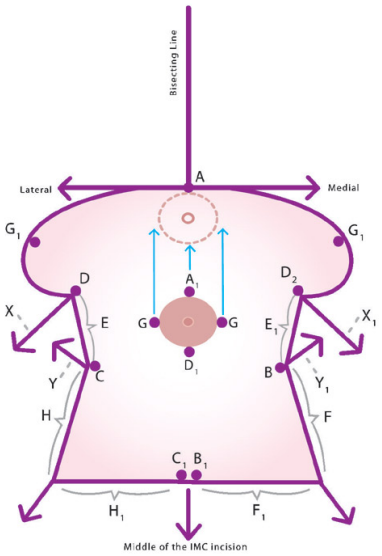


After all of the redundant breast tissue is invaginated and stapled, the new nipple areola complex is marked (see diagram below).
(All diagrams and photos credit: Ted S. Eisenberg, D.O.)





After staples are removed, the skin within the new staple markings is de-epithelialized in one piece inferiorly to superiorly. The shaded area of the diagram indicates the skin that is to be resected (see diagram below).



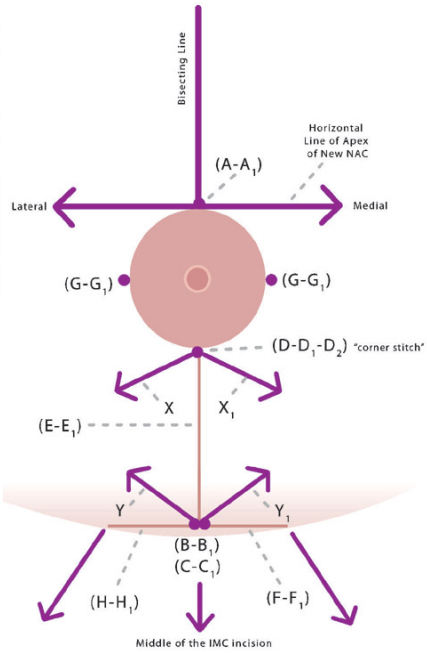
Previously, like most surgeons, Dr. Eisenberg relied on complex preoperative skin markings followed by extra skin trimming in an attempt to achieve symmetric results. After trimming the first breast, he would naturally have to go back to the other breast to ensure that they were still symmetric. "What's dramatically different with this technique is that when I staple the redundant tissue first and then take out the staples, I find that the area of skin I can remove is significantly larger than any amount of tissue that's indicated by drawing a Wise or other pattern," he says.

One disadvantage associated with Dr. Eisenberg's previsualization closure technique is that he has had several patients who experienced dehiscence at the juncture of the inverted T. However, in patients in whom this has occurred, the largest area measured approximately 1 cm and spontaneously healed within a couple of weeks with the use of topical Silvadene (silver sulfadiazine, King Pharmaceuticals).

STUDY OUTCOMES In a retrospective study of 41 patients treated with this technique over five years (from November 2003 to November 2008), Dr. Eisenberg concluded that the technique allowed him to achieve consistent, reproducible symmetry with single tissue resection with less anxiety and guesswork. All study subjects had bilateral submuscular saline breast augmentation with bilateral mastopexy to correct moderate-to-severe ptosis and hypotrophy, and were operated on with the stapling method in combination with a modification of an inverted T with a short horizontal scar in the inframammary fold. Each patient had an average of nine months of follow-up.

Of the 41 subjects, six had small areas that healed by secondary intention, occurring mostly at the inferior junction of the inverted T, and one subject had a mildly hypertrophic scar. There were no incidences of hematoma, infection, recurrence of breast ptosis, malposition of the nipple areolar complex, capsular contraction, implant malposition or dissatisfaction with implant size, and no subject had implant deflation throughout the duration of the study. Dr. Eisenberg says that although the subjects were individually followed for nine months, the five-year retrospective analysis was determined by a cross-reference to a separate list that catalogues instances of implant deflation.

Corresponding points were sutured for the final closure, which resembles that of the inverted T. Special attention was paid to the sequence of flap closure, which was performed first in the areas of highest tissue tension (see diagram at right).



NO GUESSWORK The greatest challenge associated with augmentation mastopexy, according to Dr. Eisenberg, is how to tackle the opposing tissue forces necessary to make hypotrophic and moderately to severely ptotic breasts fuller yet firmer. With his technique, he points out, there's no guessing about the amount of skin to be removed or the degree of tension on the tissues, which eliminates the need for repeated skin trimming. This method can also be employed for mastopexy alone.

FOR MORE INFORMATION: The results of Dr. Eisenberg's study were recently published in the *American Journal of Cosmetic Surgery* (Augmentation Mastopexy for Moderately to Severely Ptotic Breasts: Previsualizing Breast Shape and Symmetry With the Innovative and Versatile Staple-First Technique. Ted S. Eisenberg, D.O. The *American Journal of Cosmetic Surgery*, Volume 26, Number 3, 2009. Pages 168-176).