Natural breast augmentation

THE ICE PRINCIPLE

A beautiful, natural breast shape may be achieved in breast augmentation using the new ICE Principle for surgical planning, according to a recent study.

DR OLIVIER BRANFORD and **DR PATRICK MALLUCCI** describe how to achieve natural results in aesthetic breast surgery.

Understanding what constitutes breast beauty is essential for those carrying out aesthetic breast surgery. The authors, plastic surgeons from London, Dr Olivier Branford and Dr Patrick Mallucci, previously identified widely recognised markers of breast beauty in their 2015 International Best Plastic Surgery Article of the Year[1] in *Plastic and Reconstructive Surgery*, the official medical journal of the American Society of Plastic Surgeons.

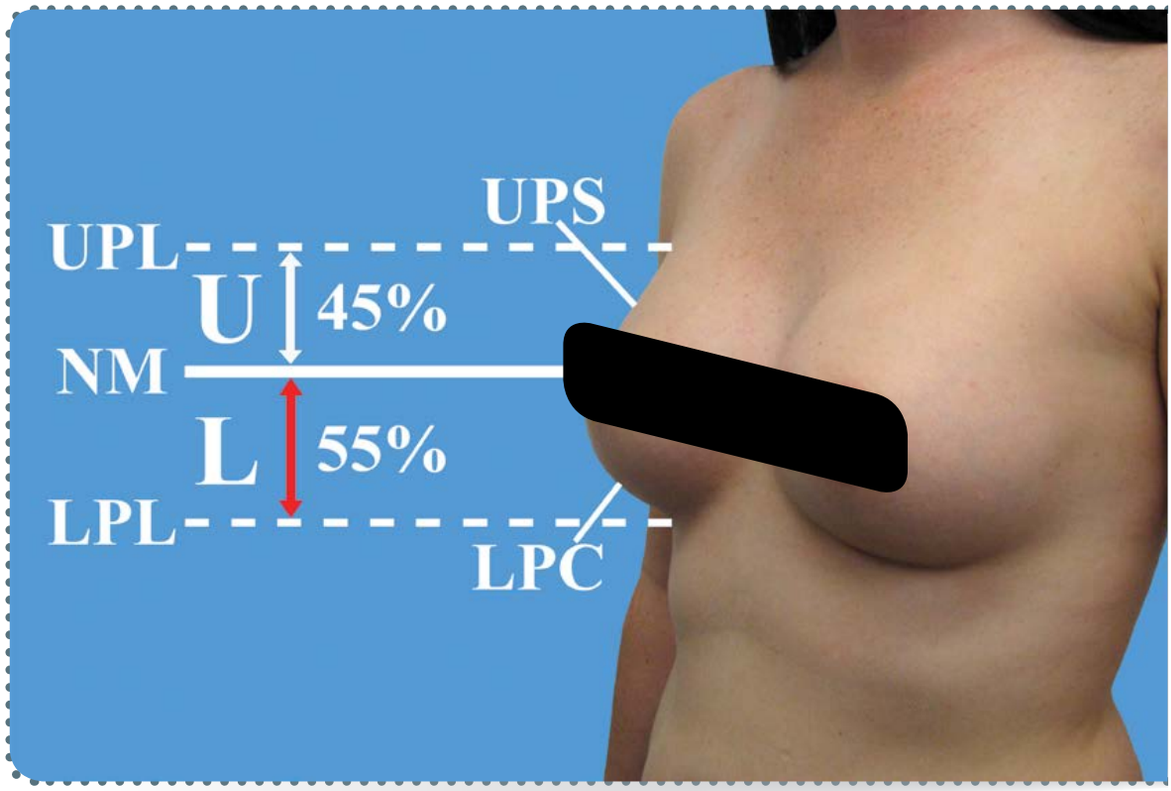
Defining natural breast beauty

The study, consisting of 1 315 participants of all demographic backgrounds, recognised that the vast majority of people prefer naturally shaped breasts, in particular 82% of the 660 women (and 87% of women in their thirties) taking part in the research, and 90% of 655 men. This is great news for encouraging a positive body image in women.

The desire for an overfilled and oversized "fake" look seems to have infiltrated practice without challenge over the past decades. The authors state, "Big is not beautiful: beautiful is beautiful." Aside from the poor aesthetic result, the negative consequences of breast implants that are too large are well established – including implant rippling, palpability, deformity, descent of the implant on the chest wall over time, thinning of the tissues, poor blood supply to the skin – and are among the most common reasons for re-operation after breast augmentation.

Perhaps the most significant observation in the study was of the upper pole (U: top part of the breast, above the nipple meridian: NM; the distance between the upper pole line: UPL and the NM) to lower pole (L: lower part of the breast, below the nipple the distance between the lower pole line: LPL and the NM) distribution – the so-called 45:55 ratio – defining the lower pole as consistently slightly fuller than the upper pole, with 55% of the breast height being below the nipple, and this full lower pole forming the basis for natural breast beauty.

This was a fundamental observation, and goes against conventional notions of upper pole fullness, or the "*Baywatch* breast" as being a desirable end goal of breast augmentation: beauty is in the lower pole of the breast. To achieve a beautiful, natural breast, the upper pole slope (UPS) should be straight or concave,



not convex, and the lower pole curvature (LPC) should be a tight convex curve.

New study puts principles into practice

The next challenge for the researchers was to put those principles into practice, in a consistent and reproducible manner, for the benefit of surgeons and, more importantly, their patients. This is the basis of the ICE Principle[2] and is all about achieving natural breast beauty and moving away from the vulgarity of oversized implants.

The ICE Principle deals with implant selection and placement, including the position of the incisions in order to reproduce the optimal shape, and may be applied to either anatomical (tear-drop or "gummy-bear" implants) or round implants. It is a simplified formula for inframammary fold (the crease under the breast) incision planning as part of the process for determining breast implant selection and placement, in order to reproduce the 45:55 ratio previously described as fundamental to natural breast beauty.

The ICE Principle formula

The ICE Principle is a formula that takes into consideration two implant parameters – height and projection – and, for the soft tissue, breast base width and nipple to inframammary-fold-on-stretch values. The formula is: *I (implant dimensions) – C (capacity of the breast) = E (excess tissue required* – in other words, how much the incision needs to be lowered by). This was tested in 50 patients undergoing breast augmentation. The results showed that implant position and incision placement were very accurate, resulting in natural-appearing breasts that were closer to the 45:55 natural ratio. The precise location of the incision in the inframammary fold is critical – it is the defining marker of the lower pole of the breast and helps to conceal the scar in the fold without distorting the curve of the lower breast. It also keeps the scar off the chest wall.

The good news is that the authors' two articles are now the second and sixth most read plastic surgery articles of all time, despite only having been published recently. The authors hope that this will help to move plastic surgery away from aiming for distorted and "fake" results. This natural shape is seen repeated in the history of art, as in the Venus de Milo and – thanks to the ICE Principle – plastic surgeons are now using natural ideals as the basis for surgical planning.

The authors suggest that the ICE Principle will contribute to a "healthier" selection of implants in the long-term interests of patients. The combination of this philosophy with aesthetic goals in place will lead to optimal outcomes. Today, women increasingly request a natural look in a bid to restore confidence and femininity. The authors believe that the ICE Principle will be used as the basis for design in aesthetic breast surgery, representing the patient's best interests, not only from an aesthetic standpoint but also in terms of longevity and patient safety.

Beauty is in the eye of the beholdee (the patient), not the beholder (the surgeon). Having a template around which to base discussions with patients will allow plastic surgeons to meet the expectations of patients rather than dictate the outcomes.

The ICE Principle is all about achieving natural breast beauty and moving away from the vulgarity of oversized implants

References:

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2. *P Mallucci, OA Branford. Design for Natural Breast Augmentation: The 'ICE' Principle. 2016 Jun;137(6):1728-1737*

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