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Aesthetics

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WALKING ON
SUNSHINE

Cozmedics on the Coast

WELL AND
GOOD

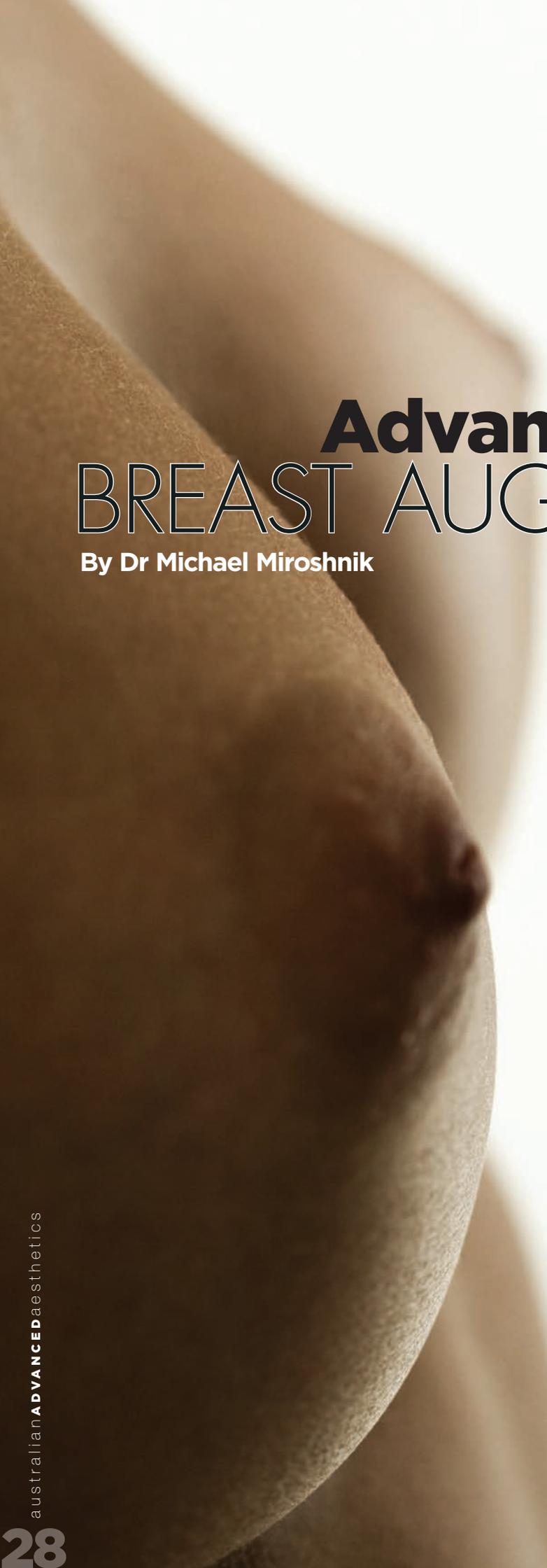
**A5M backs
12-Point Plan**

**Not tonight
Josephine**

THE STRESS OF SEXUAL
DYSFUNCTION

Innovative

Medical Technologies



It's hard to believe, but it has been well over 100 years since surgeons first used surgical procedures in order to increase the size and reshape the female breast. The earliest known breast augmentation was attempted using a woman's own benign fat tumour (lipoma) obtained from her back around 1895. Since then, all sorts of synthetic and non-synthetic materials have been used with various success rates. In the early to mid-1900s these materials included glass balls, paraffin, ivory, foam sponges, rubber, wool and even ox cartilage! Most of these materials met with understandably disastrous results and it wasn't until the early 1960s that Cronin & Gerow, two Texan plastic surgeons, developed the first generation of silicone breast prostheses that a new era was born.

Advances in BREAST AUGMENTATION

By Dr Michael Miroschnik

Today, breast augmentation is the most common cosmetic plastic surgical operation practiced in the Western world. Over 350,000 procedures were performed in 2008 in the US alone, attesting to the fact that it is a procedure with which most women are extremely happy. The reason for this is that since the procedure's conception over 100 years ago, so many new improvements in both implant material and surgical technique have transpired. Modern plastic surgeons have the ability to choose from well over 1000 different sized, shaped and filled implants and marry them with a custom procedure matched to the patient's ideals. The operation has morphed into one that is scientifically a lot more precise and well-planned, so that the results are longer lasting and much more predictable.

In this article, we will review the multiple varieties of implants that are available for breast augmentation purposes as well as talk about the latest surgical techniques employed by today's plastic surgeon to fulfil a patient's desires.

BREAST IMPLANTS TODAY

Modern synthetic breast implants vary in their shell, shape, size and filling material.

Shell:

The outer shell of an implant is generally made of silicone and may be smooth or textured.

Smooth implants may achieve a smoother look and feel in very thin patients but have traditionally been associated with a higher incidence of capsular contracture and therefore require massaging for a year or so after surgery to prevent this.

Capsular contracture, or capsule hardening, is one of the most studied complications of breast implant surgery. It can occur years after surgery and can make the implant feel extra firm as well as distort its shape. Proper correction usually requires surgical intervention so, understandably, a lot of research has gone into ways of reducing its incidence. Modern silicone implants have capsular contracture rates of less than 10 per cent.

Textured implants have a rough surface and so promote tissue ingrowth, generally reducing the rate of capsular contracture and promoting good maintenance of implant positioning. They do not require massaging postoperatively but have sometimes been associated with subtle visible wrinkling down the track in very thin patients.

A new implant shell that has recently been reintroduced into the market is made of polyurethane. Note that polyurethane shelled implants are not a new thing and have actually been around since the 1970s, but have been pulled into and out of the market throughout the years. The implants feel somewhat velvety to the touch and are made in Brazil, hence sometimes being referred to as 'Brazilian Furry Implants' by the media. There is growing

evidence that these implants have the lowest rate of capsular contracture of any implant ie. less than one per cent; however they can prove the most difficult to remove should a problem arise. We know least about them, so many surgeons, myself included, still only use them for a highly selected subset of secondary revisional cases at this stage in time.

Shape:

Implants can generally be round or anatomical (teardrop) shaped.

When round implants are very large they may produce quite an unnatural “Pamela Anderson-type” full upper pole with a sudden, very noticeable take-off. However, patients with pre-existing well-shaped breasts who desire a relatively simple and modest increase in breast volume achieve excellent results with round implants and they are still the most commonly used implants in Australia.

Teardrop implants are designed to look as natural as possible in all sizes and are becoming increasingly popular in breast implant surgery. Their downside is that they are more expensive than round implants and that there is a small risk of the implants rotating in position over time. Indeed, as the maintenance of correct implant position is so important in teardrop implants, they are only available with a textured surface. Recent evidence, by large plastic surgical units in Sweden, has shown that anatomical implants are more likely to keep their shape better over time and hence produce longer-lasting results. I personally find that these implants are the best implants of choice in three groups of people. Those with poor pre-existing breast shape, those with some droopiness in their breast who require somewhat of a lift with their augmentation and those who want to minimise upper pole fullness and look as natural as possible in all positions of life. That last point needs some clarification. You usually see before/after of breast augmentation patients with the subjects standing up and it is certainly true that when you hold in your hand a round implant, it does start to resemble (because of the influence of gravity) a teardrop one. During the activities of daily life though, you are not always standing up in a squared-off, erect position. You may be lying on your back at the beach, jogging, lying on the side reading a book etc... in many of these circumstances of everyday living, I believe anatomical implants more closely resemble and yield a more natural looking result and it is why in my practice I am using more and more of these types of implants.

Size:

Implants come in various base widths, heights, projections and volumes.

Deciding on the correct implant I like to equate to something like fitting a couture dress – multiple measurements should be made by the surgeon and a perfect fit implant is usually available which matches most of the numbers.

Most patients would come to a surgeon and request a cup size they want to be at the end of the operation. Implants, however, are not graded by cup size because the final cup size is a complex function of the shape and volume of the patients pre-existing breast, the patient's chest width/frame and of course the bra manufacturer themselves.

In Sydney, most women who see a surgeon for breast augmentation are aiming for a full C/small D cup-size. In Scandinavia, by contrast, the average woman wants to be a large B/small C, so women's desires often have geographic variations too.

At the end of the day, determining the right dimensions of the implant is a very personal thing and a modern plastic surgeon would spend a good deal of time both assessing the patient's desires and measuring them for the right fit based on their goals. The important issue, I find, is to focus more on breast shape rather than absolute size.

Fill:

The two most common filling materials are saline and new generation silicone.

It is important to note that the silicone which is now used to fill implants is up to its fifth and sixth generation. It has come a long way

since the silicone elastomer used in the early 60s that was plagued with high capsular contracture rates and leakage. In contrast, modern silicone fill is extremely safe, highly cohesive and is now the preferred choice of the majority of surgeons (and patients) in Australia. Saline implants can deflate, generally feel less natural and are more likely to show rippling particularly in their upper pole.

BREAST AUGMENTATION TECHNIQUES TODAY

More techniques are available than ever before for today's plastic surgeon when it comes to the operation itself. The three main technical variables to consider are incision site, implant placement plane and accessory procedures.

INCISION SITE:

Incision sites can be underneath the breast (inframammary), around the nipple (periareolar), armpit or belly button (if saline implants are used).

The underneath breast (inframammary) incision however, usually leads to the most accurate placement of the implants, allows for the most intraoperative choices for the surgeon, heals extremely well when performed correctly and for these reasons, is the most often used incision in the plastic surgical community. If the incision is mapped correctly, it can be well-hidden in the breast fold and really is quite difficult to spot.

The periareolar incision is also useful sometimes, particularly when there is some droopiness in the breast as it allows for a Benelli-type breast lift operation to be performed concurrently. The scar also generally heals very well but has a small risk in the interference of nipple sensation and breast feeding.

The armpit and belly button incisions, in my opinion, allow for the least amount of surgical control in terms of positioning, as they are so distant from the breast region and are reserved for only selected cases.

It is important to realise, that while preoperatively the scarring of augmentation surgery may be a concern to some – it is almost never an issue in the long-run; size, shape and aesthetics of the final result being much more important issues.

IMPLANT PLACEMENT PLANE:

The breast implants can be placed entirely under the breast tissue itself (subglandular), under the fascia over the pectoralis muscle (subfascial), under the whole pectoralis muscle (submuscular) or combination of both submuscular and subglandular (dual-plane).

Placing at least some of the implant under the muscle is important for those women who have very little cover in the upper pole of their breast to ensure there is a smooth, natural looking upper pole with gradual take-off. I tell patients that if they can see ribs in the upper part of their chest, then they don't have enough skin cover alone to mask the top of their implants. These are patients that usually have less than 2.5cm of pinchable skin in this region and will need at least upper pole implant muscle coverage to keep the breast looking natural.

Dual plane positioning allows a lot of freedom for the surgeon, as they can decide on exactly how much muscle cover is best for each patient. The technique is graded Dual Plane-1 (maximum muscle cover) to Dual Plane-4 (minimal muscle cover) and can be decided on intraoperatively by the experienced plastic surgeon. Most of the patients in my practice fall into this group with regards to implant positioning and receive a dual-plane 2 or 3 position.

In some circumstances when women have greater than 2.5cm of pinchable skin in the upper pole of their breast or have a larger degree of breast droop and do not want to undergo an accessory breast-lifting procedure, a subglandular or subfascial placement is also a good alternative to use.

ACCESSORY PROCEDURES:

When women have other issues concerning breasts that cannot be addressed with an augmentation procedure alone, then accessory surgical

FEATURE

procedures may be required. Such procedures include a concomitant breast lift (of which there are several types), nipple reshaping and parenchymal (breast tissue) reshaping techniques.

These procedures are more complicated and require more planning but yield dramatic results in those who need them. It is usually possible to do any accessory procedure at the same time so it is important to accurately assess and define goals in the preoperative consultation to see whether any of these accessory techniques would be of benefit. 📌

CASE EXAMPLES

Case Study 1: Mild Breast Droop

This woman in her mid 30s, has had two children and shows mild breast droop (ptosis). She wanted more volume and shape to her breasts as well as a bit of a lift.

These issues were addressed with a dual-plane 4, inframammary, mapped incision technique and 310g anatomical (teardrop) implants.

Case Study 2: Thin patient

This woman is quite thin and athletic, lacking much shape (or volume) to her breasts. She wanted to achieve a natural-looking result with a global increase in volume. This was achieved with a dual-plane 2, inframammary, mapped incision technique and 255g anatomical (teardrop) implants.

Case Study 3: Widely separated breasts

This woman in her late 30s had widely separated breasts which became more noticeable post-pregnancy. She desired a better breast shape, better cleavage and a volume increase. Here we used a dual-plane 3 technique combined with 325cc, textured, round implants.

Case Study 4: Marked Breast Droop

This woman in her mid-30s has had three children and was concerned with the 'deflated' look in her breasts after breast-feeding. She desired a lift, as well as more shape and volume to her breasts. To achieve these goals, this degree of breast droop requires an accessory procedure, a vertical breast lift, to be performed in conjunction with her augmentation surgery. This was done, in combination with 280cc textured, round implants.

Anatomical
(Teardrop) Implant



Textured Round Implant



Case Study 1: Anatomical Implant, Dual-Plane 4 Placement



Case Study 2: Anatomical Implant, Dual-Plane 2 Placement



Case Study 3: Round Textured Implant, Dual-Plane 3 Placement



Case Study 4: Vertical Mastopexy (Breast Lift) combined with Round, Textured Submuscular Implant

