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BREAST AUGMENTATION

The decision to undergo breast enlargement surgery using breast implants is a very personal and private one. Although being one of the most common cosmetic surgery operations performed worldwide, breast augmentation is not straightforward and there are many pitfalls for the unwary.

This information is designed to help you understand the important variables that will directly impact on your capacity to achieve your ideal result and will explain the decisions which need to be made before undergoing breast augmentation.

1.Communication:

This is perhaps the most important aspect of breast augmentation. Because the range of devices used in breast augmentation has expanded significantly over the last ten years, there is now an enormous variety of shapes, sizes and appearances that can be achieved with breast augmentation. Beware of the surgeon who only offers you one or two options.

We find in our practice that most patients invariably have a pre-determined breast ideal, or look, that they would like to achieve. It is critically important therefore, that you are able to openly and clearly communicate with your surgeon. He or she must understand the look you are hoping to achieve.

There are many methods which have been used to try and assist in this communication, the most common being the use of photographs of patient's breasts (which closely resemble your ideal breast shape), computer modeling, or the use of tester or sizer implants placed inside a bra.

In the first instance it is probably worthwhile obtaining some photographs of people from the media or magazines whose breasts closely resemble your ideal breast shape and size and bring these along to your initial consultation.

2. Devices:

There has been a radical change in the type of devices used for breast augmentation in the last four years. Whereas in the late 1990 and early 2000's the most common type of implant used was a saline implant. This has now rapidly been replaced by a cohesive silicone gel implant.

Basically the decisions that you need to make in choosing a device are:

i) **Saline or Gel filled implant.**

ii) **Round or tear drop / anatomical shaped implant**

iii) **Textured or smooth implant.**

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i) Implant fill

Saline implants were used in the early part of this century because they avoided almost all of the problems of the original free-flowing silicone implants manufactured in the late 1980's and 1990's. They were not without their own problems however, and it was not infrequent for patients to complain of rippling, particularly along the most medial part of the breast in the cleavage area. In thin patients this proved particularly difficult to correct. Because of this problem, saline implants were regularly over-filled and this tended to give a more round appearance. The second problem was that the implants tended to be quite cold, particularly after swimming or in cold weather.

The advantage of saline implants was that they could be inserted through a much smaller opening and hence this was the type of implant used when people were having breast augmentation through a peri-umbilical incision. Some of the implants are identical to silicone gel implants in their outside coating, and can be obtained in both textured and smooth coatings as well as being available in a tear drop and round shape.

In the last 5 years there has been a progressive development of the newer **cohesive gel-filled implants**. These implants avoid the problems of the original **silicone gel implants** in that the silicone is much more stable and will not flow out of the implant if the implant capsule is torn or cut. There has been progressive development in all types of cohesive gel implant filling with many manufacturers now on to their third or fourth model.

In general, most patients are now opting for a cohesive gel implant because it tends to avoid the problems of medial cleavage rippling and is more resistant to the temperature changes seen in the saline filled implants. The newer implants in particular are extremely soft to touch and very difficult to detect once inserted behind your breast.

The disadvantage of cohesive gel implants is that their insertion requires a slightly larger incision of 4.5cm in length.

ii) Shape:

Implants broadly fall into two distinct shapes.

Round implants are the more traditional type of implant and tend to give a fuller upper pole and a quite distinct look. Because of the technical difficulties in inserting an anatomical implant, many practitioners still tend to opt for a round implant. Indeed, round implants are the most common type of implants seen on the internet, in magazines and the media. Round implants can be obtained in either a smooth or textured coating.

In the earliest part of this century, two plastic surgeons from USA, Patrick Maxwell and John Tebbetts jointly developed an **anatomical implant,** primarily for use in breast reconstruction. These implants differed from a round implant as they had a teardrop shape that was beveled at its most superior edge. It was designed to more closely replicate the shape of a breast after mastectomy. With increasing use in breast reconstruction these implants have also been used in breast augmentation. They are particularly suited to patients who have very little breast tissue (so that the breast implant is essentially representing the entire breast mound), or in patients who desire to have a very natural looking breast with minimal upper pole fullness.

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Contrary to popular belief, as long as the proper surgical techniques are employed and a pocket is dissected such that it is exactly the same shape as the anatomical implant, these implants do not tend to rotate in normal circumstances. A drain needs to be used after insertion to minimize the chances of seroma.

Because of the different shape and the desire for the implants not to rotate, anatomical implants are only available in a textured finish.

iii) Textured versus smooth implants:

As mentioned, implants are available in either a **textured** or **smooth** finish. It is thought in some circles, that a textured finish may be associated with a lower incidence of capsular contracture, however, this has not been conclusively proven and there is still significant debate over the advantages and disadvantages of a smooth or textured implant. As mentioned previously all anatomically shaped implants are textured.

3. Position of the implant in relation to the underlying pectoralis major muscle:

A lot of literature is devoted to this topic and tends to make this issue relatively confusing. Underneath your breast is a large fan-shaped muscle called the pectoralis major. This muscle extends from your shoulder down over the chest wall to attach in the middle part of the chest wall near the sternum. In patients in whom there is not enough tissue overlying this upper chest wall, the implant can be placed behind the muscle to provide extra soft tissue over the implant and give a more natural look. The cut off limit is usually referenced to about 2cm, that is, if you have less than 2cm of soft tissue in the upper pole of your breasts then you should seek to have your implant placed behind the muscle.

I would further add that if you are having a round implant that you should be seeking to have your implant placed behind this muscle even if you have thicker soft tissue, to avoid a visible ridge at the upper edge of the implant

The placement of the implant behind the muscle is a little more technically demanding and has a slightly higher incidence of bleeding. Additionally, it is a little more painful in the early postoperative period, particularly when you raise your hands above your head, such as putting on clothing, brushing your hair or hanging out clothes.

The issue is further complicated by the fact that if you have a small amount of breast ptosis or sagging of the breasts, such as after breastfeeding, it may be possible to correct this sagging by placing the implant directly behind the breast. This is done in an attempt to avoid the scarring associated with a breast lift.

The literature also mentions that implants placed behind the muscle have a lower incidence of capsular contracture, which I don't feel makes sense, and I feel simply reflects that implants behind the muscle are more camouflaged by the muscle and therefore any capsular contracture, if present, is more difficult to see.

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4. Incisions:

There are three main types of incisions used to insert breast implants.

1. Inframammary fold incision: This is the most common incision. It needs to be 4.5cm long and is placed on underside of your breast in the skin crease at the junction of where your breast meets your chest wall. This incision has the advantage of giving immediate access to the space behind your breast and allows direct visualization of the inframammary fold.

2. Axillary incision: Alternatively, it may be possible to access the breast and place an implant using an incision, again 4.5cm long, on the anterior part of the armpit. This incision is placed high up, just on the front side of the hair-bearing skin. It has the advantage of not placing any scars at all on the breast, but has the disadvantage in being remote from the breast and therefore is technically more demanding and has a higher incidence of pocket asymmetry. It should be used in caution in patients who are very slim and in whom any irregularities in the breast implant or the breast pocket will be easily seen. Additionally, it is almost impossible to conduct any revisional surgery through this incision and hence the inframammary fold incision is used for secondary surgery.

3. Areola incision: The third option is to have an incision around the under side of the areola at the junction where the areola meets the breast skin. In patients who make fine scars this is an extremely good option. The scar is initially a pink-red colour and therefore matches the areola. As the scar fades, it fades to match the surrounding breast skin. The obvious disadvantage of this incision is if there is any poor healing then this scar becomes very obvious. In my experience this incision is not associated with an increased risk of infection or alteration in nipple sensation.

4. Umbilical incision: it has been reported that saline implants could be inserted through an incision around the umbilicus, however, as mentioned previously, this is not possible with a cohesive gel implant as they require a 4.5cm incision.

5. Size:

This is perhaps the most important variable for patients who are seeking to undergo breast augmentation. It is an extremely personal decision and is complicated by issues such as early postoperative swelling, alteration in body image and difficulties in bra manufacturers adhering to set bra cup sizes.

If there is one decision which will fundamentally determine whether you are happy with your breast augmentation, it is the size implants you choose to have inserted.

One of the problems is that the size of your breasts will change in the early postoperative period. After any breast surgery, the breast swells. The amount of swelling is usually between 70 and 100cc's. This means that if you were to have a 300cc device inserted into your breast, the immediate postoperative result will be a 370-400cc difference. This not infrequently results in patients saying their new breasts are significantly bigger than they had anticipated. Over the next three to four weeks this swelling progressively decreases as the extra fluid is absorbed

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into the body. Concomitantly your body image changes over this early postoperative period as you get used to the shape of their new breasts. At approximately 3-4 weeks, after some 50 or 60cc's has resolved, most patients believe the new breasts to be the ideal size.

The problem is that over the next 3-4 weeks the remaining 25-50cc's of swelling will continue to resolve. This is one of the most likely explanations for the frequent comment at the two month review in which patients wish that their breasts were 20-30cc's larger, or that they were the size that they were three weeks ago.

The other confusing point is that a lot of patients get transfixed on precise measurements quoted on the internet. Obviously a breast implant is going to look significantly different on someone who is 5' or 150cm tall as compared to someone who is 6' or 180cm tall. I therefore suggest that rather than focus on size or on bra cup size that you focus on the look or the appearance of your breasts and you try as best you can to convey this to your surgeon.

To emphasize the difficulty in choosing the appropriate size of your breast implant, a recent study published a review of 5,000 women in America who returned to theatre for second surgery on their breasts after breast augmentation. The study found that 55% of women in this group returned to theatre because they felt their breast implants were the wrong size.

6. Breast asymmetry:

Whilst your surgeon will endeavour to dissect both breasts in an identical manner, there will always be small discrepancies between your left and right breasts. This is further complicated by the fact that most women's breasts have an inherent degree of asymmetry, which may or may not, be accentuated by the placement of a breast implant. From my experience breast asymmetry is more likely to be noticeable in patients who are very thin where any irregularity in the underlying pocket dissection is more likely to be seen. Some surgical techniques are also associated with a higher incidence of breast asymmetry. For example, we know that the use of an anterior axillary approach is associated with a higher incidence of breast asymmetry than an inframammary fold incision.

7. Things you must know before considering Breast Augmentation:

It is important to understand the risks involved with this surgery. The choice to undergo a surgical procedure should be based on the comparison of the risk to the potential benefit. Although the majority of patients do not experience the following complications, you should discuss each of them to make sure you understand all the possible consequences of the planned surgery.

In most cases breast augmentation surgery is uneventful. Nonetheless there are risks associated with breast augmentation. Some of these are common to all forms of surgery and others are specific to breast augmentation.

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Two are particularly important:

1. Capsular contracture

2. Infection

1. Capsular contracture

Capsular contracture is the complication that causes the most distress to patients and plastic surgeons. The layer of scar known as a capsule invariably forms around all breast implants. In most cases this scar tissue remains soft and pliable and has little effect on the shape of the breast. In a percentage of patients however, (currently around 5 % at 10 years) , this scar tissue membrane undergoes progressive thickening and shrinking. This is called capsular contracture. In most cases this change is subtle and can only be felt with difficulty, but in severe cases the implant may compressed to such an extent that the implant becomes very hard and takes on a ball like shape. To date, no trial has been able to show any significant difference between implant shape, surface or location.

It is possible to reoperate and remove this thickened scar tissue, but there is no guarantee that the contracture will not recur.

2. Infection

Infection occurs after breast augmentation in 1- 2% of patients. The risk of infection does not appear to be related to the type of implant, its location, or the access incision used.

Infection can occur despite using antibiotics in the post operative period.

It appears to be more common in patients who continue to smoke post operatively.

With early and aggressive antibiotic therapy, it may be possible to salvage the implant, but in severe cases the implant may need to be removed and replaced at another date.

There are other specific risks associated with surgery that you should discuss with your surgeon prior to consenting to surgery.

8. Common questions about Breast Augmentation Surgery

Can I breast feed after I have my breast enlargement ?

Yes: The placement of an implant will not affect your capacity to breast feed.

What about Breast Cancer ?

Your risk of developing breast cancer is unaltered by your breast implants.

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Interestingly, recent studies have shown that patients with breast implants actually find it easier to detect breast lumps during breast self examination, and are able to detect them when the lumps are much smaller. This is good news.

The downside is that these studies also found that investigation of any lump requires specialist imaging and often cannot be done using standard routine mammography. It may be that other tests such as Ultrasound or MRI scanning are needed to fully investigate the lump.

Use of bras in the postoperative period:

This is a controversial topic and there is no right or wrong answer as to whether or not you should wear a bra in the early postoperative period. Some surgeons use no bras at all whereas others advise that a patient wears their bra for the first 3-4 weeks continuously, i.e. 24 hours a day. I think it would be fair to say that the patient should avoid a push up or displacing bra in the early postoperative period as almost certainly this will shift the position of the implant. This is particularly important if you had an anatomically shaped implant placed as the orientation of the implant is able to be altered in the early postoperative period before the implant surface has been incorporated into the surrounding breast tissue. Personally, because we use a technique in which the pocket cavity is exactly the same size as the implant device to be inserted into the breast, we don't require that our patients wear a bra for the first 2-3 weeks at all.

Drains:

It is our practice to insert drains in all our patients for 24 hours following surgery. We do this because it allows us to drain any fluid or blood which may collect around the implant away from the implant. This is important as it has been documented that postoperative haematoma or presence of blood around implants is associated with a higher incidence of capsular contracture. Secondly it allows us to administer local anaesthetic back down the drain tube using sterile technique so that we can minimize the amount of discomfort and pain in the early postoperative period. These drains are usually very thin, approximately 3mm in diameter, do not have any flanges and are made of very soft and malleable silicone. Most patients do not to feel the drain tubes at all and certainly do not experience any pain on having these new drain tubes removed.

Postoperative exercise:

We advise our patients not to indulge in any heavy physical activity for a minimum of six weeks postoperatively. This is particularly important if you have had an anatomically shaped implant placed in a retro-mammary pocket. Gentle physical exercise such as walking or gentle bike riding can usually be recommenced after one week following surgery. In all activities such as shopping or sedentary non physical work such as office work can usually be undertaken after 3-4 days. We advise all our patients not to swim at all for 3-4 weeks after surgery or until the wounds have completely healed.

Postoperative recovery:

In most instances patients can return to work within 3-4 days following surgery as long as the work is not

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particularly physically demanding or involves long hours at work. To be completely safe we recommend that you take ten days off work. You will find that you should be able to do all of your normal activities of daily living but that some activities will be a little more uncomfortable than others. These can be broadly generalised into those activities that you raise your hands above your head – such as drying your hair, applying mascara, hanging out the washing, closing the boot lid of your car, putting on a T-shirt, getting food from the back of the freezer and so forth. These activities do not need to be avoided and in fact as long as they are undertaken carefully and slowly, won't cause any adverse affects to your breasts. However, obviously if these were done excessively it would increase the amount of inflammation and pain. Like most things, gentle exercise, done carefully and in moderation is usually not a problem.

9. If I decide to proceed, what can I expect when I undergo breast augmentation surgery?

Everyone performs surgery differently.

We perform our surgery at **Frances Perry House**. This is a tertiary referral hospital, co-located on the campus of the Royal Women's and the Royal Melbourne Hospital, in Parkville Victoria. All rooms are private rooms with your own ensuite and bathroom facilities. There are three state of the art operating theatres with the latest anaesthetic machines and the latest theatre equipment. There is onsite Intensive Care, High Dependency Unit and access to almost every medical specialty. There is 24 hour onsite medical emergency care.

Our breast augmentation surgery is performed on Level 6 at Frances Perry House, a unit specializing in gynaecology and breast surgery. We conduct all forms of breast surgery on this ward, from breast reconstruction after breast cancer, breast reconstruction for congenital abnormality and breast augmentation and revisional breast augmentation surgery. Most of our breast augmentation surgery is performed in the morning and involves you being admitted to hospital between 7 and 8 o'clock in the morning. You would normally have fasted from 12.00 midnight the night before. All paperwork is normally forwarded to you in an information pack some 3-4 weeks prior to your operation so that any questions you may have can be answered well before your admission.

The surgery normally takes between 90 and 120 minutes and is conducted in one of the three operating theatres. It is conducted under a general anaesthetic by a fully accredited specialist anaesthetist. In addition to the general anaesthetic your breast is infiltrated with local anaesthetic to minimize the amount of blood loss and also to ensure that when you wake up after anaesthetic you don't have any pain. All wounds are sutured using a dissolving Monocryl suture to avoid the need for removal of sutures in the postoperative period. Gentle gauze bandages and waterproof dressings are applied to your wounds which means that you can shower after your operation.

Following surgery and recovery in the Post Anaesthetic Recovery Unit you will be returned to the ward where you will normally spend the next 24 hours in hospital. This allows us to ensure that you have excellent medical care and supervision, that we can monitor the amount of drainage coming out of your drains and that we can ensure that you don't have any postoperative pain.

After your stay in hospital overnight and following review by me the next morning you would be free to be discharged. The nursing staff would change your dressing to ensure that everything is progressing smoothly. You

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will be discharged home on antibiotics and will have an appointment to come and see us in our rooms, which are also located within the Royal Women's Hospital complex at approximately one week following surgery. After this you would normally return to see us again two weeks after surgery. During this period we will monitor your recovery and your progress and precisely advise you as to how much activity or exercise you should undertake and also advise you on things we may need to change in your postoperative management.

10. Further Surgery / Revisional Surgery:

Whilst every attempt is made to achieve the perfect result at the first operation, it is not infrequent for a variety of reasons for you and your surgeon to decide that revisional surgery may be required. It may be that in the early postoperative period the swelling on one side was greater than the other, that there was more fluid that collected in one side more than the other, that pre-existing differences between your left and right breasts were not detected and that these become more apparent following the placement of an implant. The most common of these is that your nipple on your left and right sides are different heights. Because of this it is important that you discuss with your surgeon preoperatively what arrangements he has in place should revisional surgery be required. It is particularly important to ascertain exactly who is to pay for the revisional surgery and if there are additional costs such as a return to theatre or to hospital.

In general, if you have private health insurance which covers plastic surgery, you can claim the costs of returning to hospital through your private insurance. It is therefore worthwhile before considering breast augmentation that you consult with your health insurance company to see whether or not you are covered for revisional surgery. The item numbers most commonly used are 45554 or 45556.

In most instances the need to return to theatre should be less that 1%.

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