WIDE LOCAL EXCISION & THERAPEUTIC MAMMAPLASTY BREAST CONSERVATION INFORMATION SHEET

Wide Local Excision

Also known as **Lumpectomy**, a Wide Local Excision involves removing the breast cancer with a rim of healthy breast tissue around it. About 2-3 months later, **Radiotherapy** treatment to the remaining healthy breast is required to complete safe treatment. This is the commonest strategy for treating breast cancer (more than half of all cases) and is also known as **Breast Conservation Treatment**.

It is essential that the cancer is completely excised with **clear margins**, so that the risk of recurrence is reduced to a minimum. If there is evidence of further disease at the edges or margins of the tissue removed, then another operation known as a **Re-Excision** is required a few weeks later. Further cancerous (or more often pre-cancerous) change at the margins of a wide local excision may be found in up to 20% of patients. The reason why it is not possible to prevent some patients from needing a re-excision, is that there can be undetectable changes in the tissue around a cancer that cannot be palpated or seen with mammograms or ultrasound before surgery. Sometimes a re-excision may not be possible or advisable and a mastectomy (removal of all the breast tissue) may be the safest option.

Wide Local Excision and Breast Reshaping

Wide local excision leaves a **cavity** in the breast where the tissue was removed from. This cavity, if left is usually obvious and often leads to a permanent change to the shape and feel of the remaining breast. Radiotherapy treatment may also make these changes worse. In general, the larger the amount of tissue removed and the smaller the breast it is taken from, the greater the chance of noticeable deformity. Excisions from the upper and inner halves of the breast are more likely to leave cosmetic problems than those taken from the lower and outer halves of the breast.

It is usually possible pre-operatively to predict which patients will have significant deformity. **Breast Reshaping** is a modern oncoplastic technique which involves freeing up the breast tissue and skin surrounding the excision cavity. Using simple techniques it is usually possible to repair and sculpt the breast to at least reduce if not eradicate the cavity completely. This type of approach is also known as **volume displacement with glandular repair**. With careful planning and meticulous surgery, the deformity associated with standard wide local excision can be minimised. The breast is then prepared as well as possible for the forthcoming effects of radiotherapy.

Incision and Scars Placement

Traditionally wide local excisions were performed by making incisions directly over the cancer. Usually the skin over an early breast cancer is healthy and there is no need for the scar to be directly over the lump. If skin is involved, then clearly it must be removed along with the tumour beneath.

An Oncoplastic Breast Surgeon will carefully plan the incision for a Wide Local Excision to minimise the amount of scarring on the breast. Scars on the upper and inner parts of the breast are avoided if at all possible. Incisions may be hidden around the nipple (circum- areolar /peri-areolar approaches, at the outer edge of the breast (lateral approach), or even in the crease under the breast (infra-mammary approach). Mastopexy and Mammaplasty techniques may also be employed to produce better aesthetic scar placement (see below).

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Therapeutic Mastopexy and Mammaplasty

If a patient is prepared to have surgery to her other breast (and some women are not for a variety of reasons) then **reduction and uplift techniques** can greatly improve the access to the site of the tumour, maintain symmetry and even improve the cosmetic appearance of the breasts. It also may make it easier for the surgeon to remove a larger amount of tissue and improve the safety margin; thus reducing the likely need for a Re-excision.

Therapeutic Mastopexy - Combined Wide Local Excision & Bilateral Breast Uplift

In a breast up-lift or **mastopexy,** the skin envelope is reduced and then 're-draped' over the natural breast. The glandular tissue is left untouched, but the nipple position is higher than before leading to an improved and more youthful breast shape.

Skin uplift techniques can allow better access to the breast tissue and tumour. The same pattern of skin is removed from both breasts. The only difference is that on the cancerous side, the tumour is removed and the glandular tissue 'repaired' before the skin is 're-draped' over the breast. The result is essentially an uplift of both breasts as well as treatment of the cancer.

Therapeutic Mammaplasty – Combined Wide Local Excision & Bilateral Breast Reduction

In a breast reduction or **reduction mammaplasty**, some of the glandular tissue is removed taking care to maintain a healthy nipple. The skin envelope is also reduced, so that when it is 're-draped' over the reduced breast, a better breast shape is produced.

Therapeutic Mammoplasty is the term used to describe the use of **breast reduction techniques to treat selected breast cancers**. On the healthy side a standard reduction is performed. On the diseased side, the cancer is removed along with any other necessary tissue to match the volume of tissue that was removed on the other side. The result is therefore a symmetrical reduction of both breasts with treatment of cancer at the same time.

It is ideally suited for those patients with large breasts who, after a simple wide local excision, would have to cope with the increased problems associated with poor scar placement, difficult post-operative healing and radiotherapy in the larger breast.

Scars and Techniques

There are several different techniques for reducing the breast and therefore different types of scars. The most frequently used scar goes around the nipple (which is often reduced in size to complement the new breast size) and passes down the centre of the lower breast to an upside down "T" shape. Other techniques may involve just a scar around the nipple and down the middle (vertical scar technique) or just around the nipple itself (peri-areolar or "round-block" technique). Your surgeon will recommend which would be the best technique for you.

Pre-operative Evaluation for Oncoplastic Procedures

At your initial consultation, your consultant will discuss with you the different surgical options suitable to effectively treat your cancer

Detailed measurements of your breasts and chest wall will be taken and recorded on a special anatomical form that is kept in your notes. In particular any asymmetry of the natural breast, chest or back must be established in order to plan the best possible surgical strategy.

You will be asked to sign a consent form prior to this for medical photography. Medical photographs are an important part of your assessment and treatment. The images taken will not show your face and do not include any other distinguishing features. They are an essential record of your assessment and post-operative progress and are stored on a secure password protected hospital computer on a further password protected database/file.

Your surgeon should be able to demonstrate to you what the various different techniques would involve in your particular case, and what can realistically be achieved. This will involve a combination of drawing on your skin with a washable marker in front of a mirror and also taking some digital photographs.

Post-operative advice after Oncoplastic Procedures

You will be encouraged to move your arms as soon as possible to prevent stiffness. However you should avoid raising your arms above shoulder height and avoid heavy lifting at least until your surgeon is happy for you to do so.

A sports bra without under-wire should be worn as soon as possible after surgery and can be worn over the foam tapes. Your dressings will have done their job by 10 days. Your sports bra should be worn 24/7 for at least 4-6 weeks

You should expect your breast/breasts to be bruised and slightly swollen in the immediate post op period. Firm support will help to minimise this and any discomfort. Simple regular pain killers may also be required for the first 1-2 weeks.

When you are seen at your review clinic appointment any remaining dressings will be removed. Your surgeon will check the healing process and for any signs of infection. Your surgeon will advise you when it is safe to resume normal activities – usually 6-8 weeks after your operation.

Keeping the scars taped with a thin strip of low allergy tape such as Micropore™, for 3-9 months can help reduce stretching of the scar whilst it matures, and hence help to keep it as imperceptible as possible. If you have a tendency to form thickened or raised scars there are silicone gels that can be used which might be beneficial

General Complications of Oncoplastic Breast Procedures

Bilateral Breast surgery usually involves a longer general anaesthetic that can last 2-4 hours. The usual risks of any long operation are small but you must still be aware of them. You will have sufficient opportunity to discuss these issues with your anaesthetist prior to signing your consent form.

Postoperative chest infections are uncommon but your risk is increased if you have been a recent smoker or have other lung problems. Deep breathing exercises supervised by your nurses and physiotherapist will be taught to you after your operation.

Thrombo-embolic problems (blood clots in the legs and pulmonary emboli (when they spread to the lungs) are rare but important. If there is any family or past history of blood clots please inform your surgeon. Routine Steps are taken to reduce the risks of blood clots and including heparin injections and the use of surgical compression stockings. In addition it is our practice to mobilise patients early after the operation.

Blood transfusion is very unlikely given that there is rarely sufficient blood loss during the operation or afterwards. If a haematoma develops in the immediate postoperative period then transfusion may be necessary. Sometimes it is necessary to return to theatre to remove a haematoma (<2% risk).

Notes about Smoking & Major Oncoplastic Breast Surgery Procedures

It is important that you try to **completely** stop smoking before undergoing any form of breast surgery. Although rarely possible, the ideal time would be at least 6-weeks before surgery and for at least 6-weeks after surgery (although this would be a good reason never to start again!). The blood supply to healing tissues is reduced in smokers and severely reduced whilst smoking and for several hours afterwards. Poor blood supply may lead to tissue necrosis (death of tissue) at vulnerable sites in the operated breast, particularly the skin.

In smokers there is therefore an increased risk of delayed wound healing, serious infection, loss of breast tissue or loss of some or even the entire nipple areolar complex (if the nipple is preserved).

Wound healing problems can lead to a prolonged recovery period with dressings. In more complex oncoplastic cases or breast reconstructions, the worst scenarios could lead to a delay in the start of your chemotherapy or radiotherapy treatments. In severe cases there may even be a need to have further surgery.

Although these complications are rare (and can occur in non-smokers) they are 2 -3 times more likely in smokers. If you stop smoking, then you will greatly increase your chances of a smooth recovery and a good result. Your surgeon may not be keen to list you for surgery if you are a smoker and you should think carefully about stopping and improving your risk of a serious complication.

Specific Complications of Breast Reduction-type surgery

Nipple sensation: Nipple sensation can either be lost completely or there may be some small loss or indeed increased sensation. Temporary loss of sensation occurs in about 30% or cases and can take up to 12-months to improve.

Nipple Necrosis: There is a small possibility that despite the best techniques and delicate surgery the nipple may lose some or all of its blood supply. If it should become necrotic, the skin may become non-viable and heal by scabbing and eventual scarring with loss of pigmentation. If the nipple should not survive surgery (<2% risk) then an effective nipple reconstruction and tattoo can be performed.

Skin Necrosis: Occasionally the blood supply to the skin of the reduced breast is inadequate. This is more common in smokers as discussed earlier. The involved skin becomes purple in colour, may becomes necrotic and form a black scab and lead to wider stretched scars. The commonest place for this to occur is at the the "T" junction which may be affected to a greater or lesser degree in 10% of patients. In almost all this is very minor and simply requires a dressing to be worn for a few weeks. Even if "T junction" scarring is wider than the rest of the scars in most patients it is well hidden under the breast. Scar refashioning at 6-12 months is possible if scarring remains unacceptable but this rarely required (<2%).

Infection: Despite the routine administration of antibiotics during the procedure infections do occur (<2%). Any signs of spreading redness, heat, unpleasant discharge from the wound corners or a raised temperature should be reported as soon as possible. The ward or your GP should be able to quickly organise an early appointment with the consultant if necessary.

Scarring: If you do get an infection, the scars can become a little thicker and the eventual scar may not be acceptable. Even without infection some women develop thick unsightly scars due to a condition called "keloid and hypertrophic scarring." If you have had problems with such scars before then you should discuss this with your surgeon. Wound taping and special dressings may help reduce this.

At the ends of the horizontal scar there can be a slightly raised area of tissue, often called a "dog-ear". Theses are caused by residual excess tissue that has not been excised. Sometimes, even with the best planning and marking, they are unavoidable, particularly if the incision lengths are limited by the constraints of the chest wall dimensions. Additional minor surgery can be performed 6-12 months later if these areas have not settled down and remain troublesome.

Skin Sensation: In addition to alteration in the nipple sensation it is normal for the breast skin sensation to change with areas of numbness or tingling. It is also normal to have occasional sharp or tingling feelings/sensations in the breasts for several months after this surgery. This is part of the normal healing process.

Haematoma (Bruising): Bruising may cause the breast to become a little discoloured and this may spread downwards on to the abdomen. The body will absorb this bruising over a few weeks but if you are worried your surgeon should be able to reassure you.. Rarely an operation is required to drain a haematoma in the immediate postoperative period as discussed earlier.

Specific Complications of Breast Reduction-type surgery (continued)

Fat necrosis: Breast tissue is relatively fragile and as part of the surgical 'sculpting process' may become bruised inside**.** Fat necrosis is the term used to describe the scarring and remodelling process that fatty breast tissue can undergo. It occasionally results in lumpy areas or ridges within an area of the breast. Usually all that is required is reassurance, but any new lump in the breast must be carefully assessed and may require assessment or biopsy by your breast surgeon to allay all concerns. The condition is benign and does not carry any risk of cancer.

Note:

This information is for general guidance only and represents the views and opinions of Mr Iain M Brown Consultant Oncoplastic Breast Surgeon. It should in no way be regarded as either definitive or representing the views of any other surgeon, doctor or institution.