BREAST Reconstruction
And the use of
MEDICAL MICRO-PIGMENTATION
by Christine Comans

As breast cancer statistics are on the rise the need for appropriate cosmetic breast reconstruction is very much part of the recovery process. Part of this may involve the skilful application of re-designing the nipple areola through cosmetic tattooing.

We all want to look at our body and feel satisfied with what we see in the mirror. As my work is solely dedicated to breast cancer patients I know firsthand the negative impact that breast cancer has on my patients’ self-esteem and body image. Although, in most instances these patients don’t seek perfection from their surgeries so I remain forever hopeful that before I consult with them, they are fortunate to have received a good aesthetic outcome as an endpoint after enduring their breast cancer treatment.
The goal of plastic and reconstructive surgery is to recreate a natural looking breast that is satisfying to the patient. An important part of this process includes the very final step to recreate nipple areola complex through the skilful use of colour, in the form of cosmetic tattooing to complete the entire breast reconstruction.

Many reconstructive surgeons have adopted the Penn’s method as standard measurements in reconstructive surgery to determine breast size and position. This is also called the golden ratio and it’s commonly used in eyebrow procedures and is a standard for breast reconstruction surgery, including areola recreation. One of my referring surgeons sends the perfect areola size on a sticky note. This is based on the individual breast size of the patient hence, applying the golden ratio to determine the perfect areola size. The surgeons’ suggestion is always considered throughout the consultation process, although my final decision will be influenced by patient preference.

Skin Sparing Mastectomy
It is important that practitioners who decide to become areola tattooists are not just focused on the application of colour but most importantly have a very clear understanding of skin science, reconstructive process, including treatments affects and outcomes.

Breast reconstruction is not a one size fits all approach. This means the reconstructive surgery techniques are individual for each patient’s unique situation. Often the options for a successful reconstruction are determined by a number of factors such as the general surgeons’ surgical skill to perform the mastectomy combined with the plastic and reconstructive surgeons’ ability to perform one technique over another. Often a surgeon will have a reputation for performing a particular type of reconstruction and as they do it often it results in high satisfaction rates with positive patient outcomes.
It’s important to note that NOT every woman that endures mastectomy is afforded a breast reconstruction for many reasons due to individual circumstances.

Mastectomy

OK so let’s go over the most common types of reconstructions and I’ll include images for you to review. All these reconstructions have pros and cons that’s why it’s such an individual decision for all patients.

Autologous reconstruction means the breast mound is recreated using skin and fat from another place on the patient’s body. TRAM and DIEP flap reconstruction is taken from the abdomen “tummy tuck” surgery and they use this skin, fat etc to recreate a breast mound. It’s difficult surgery and it may not end in an aesthetically pleasing reconstructed breast and the result is very much determined by the surgeons experience and technical ability, this may involve micro surgery to connect the blood vessels which may introduce a risk of internal bleeding (haematoma) and tissue necrosis (death of cells in living tissue)

TRAM

DIEP
We must remember that breast reconstruction is not the same as cosmetic surgery or breast augmentation and as such the aesthetics of reconstruction after breast cancer can vary due to adjuvant therapies such as radiation causing the skin to become taught and fragile making it hard to stretch which in turn limits the patients’ options for the type of reconstruction. Studies have shown that radiation can alter the inherent structure of the tissue and ultimately lead to atrophy or hyperplasia of the epidermis, fibrosis of the dermis, including vessel sclerosis. Radiation can mean the patients skin is fragile including erythematic during the tattooing process and the patient may suffer delayed healing because they are immune compromised although, there is far more complex issues attached to radiation.

**Delayed Healing**

**Radiation Blister 2YRS Post**

The side effects of radiation can last for **up to six months** after treatment has ended, although in some cases, the onset of side effects won’t occur until months or even years after treatment, thankfully this is fairly rare.
Latissimus Dorsi is another autologous breast reconstruction surgery often performed on patients that have to undergo radiation therapy because that BIG Latissimus Dorsi muscle from the back stands up well to the pounding from the radiation therapy. This muscle is tunnelled from the back, around to the chest to recreate a breast mound.

**Latissimus Dorsi**

Reconstruction with implant is either delayed or immediate. Delayed means they insert expanders to stretch the skin and immediate may be skin sparing or they often use acellular dermal matrix as a sling to provide coverage for an implant.

Acellular Dermal Matrix is a mesh that can be either synthetic or denatured pig or human skin.

**Reconstruction with implant**

**Acellular Dermal Matrix**
Fat transfer is used to refine any irregularities in shape or volume of the breast. Performing liposuction from one area of the body and placing it into a reconstructed breast.

**Fat Transfer**

Nipple reconstruction is usually performed using local tissue from the reconstructed breast. These commonly fail as there is no structure to maintain protrusion of the nipple.

**Nipple Reconstruction**
Lymph Nodes removed can cause lymphoedema, chemotherapy can cause menopause this is just a brief overview of many different affects on the body.

**Lymphoedema**

Breast cancer treatments are not solely limited to cure but include maximizing quality of life for the patients, being mindful that breast cancer treatment has the potential to adversely affect breast appearance and cause emotional distress for the patient due to deformity or asymmetry.

**Breast Asymmetry**

The importance of a cosmetic tattooist’s role in the breast reconstruction process should never be disregarded. This final step provides a critically important component in the emotional healing after our patients have endured such a traumatic life event.

Compassion, empathy, skills and knowledge are key components to this role.
References:


