

Breast Reconstruction Options following Mastectomy

The purpose of Breast Reconstruction is either to restore the original shape and appearance of the breast or breasts after complete or partial breast removal in cancer patients or to address problems stemming from any number of causes, including congenital breast deformities. Breast reconstruction makes many patients feel better about their appearance, however it is important to be realistic about the expected outcome.

The term Mastectomy refers to the surgical partial or complete removal of one or both breasts in individuals with breast cancer. In the past, complete removal of the breast was the standard treatment of breast cancer, however surgical breakthroughs in recent years have presented patients with more options than ever before. At present, there are a number of different types of mastectomy and whilst every type of mastectomy may not be right for every patient, the type of incision used and the amount of skin removed will affect the aesthetic results of reconstruction.

Factors affecting the type of mastectomy to be adopted are a patient's age and general health, the size, location and behaviour of the tumour, whether or not the surgery is to prevent cancer instead of treating it, and whether or not the patient intends to undergo reconstructive surgery, either immediately or at some time in the future. According to Dr Allen Rezai, pre-eminent consultant plastic and reconstructive surgeon of Harley Street, London, and breast surgery expert, "There are various types of mastectomy: firstly the *Simple Mastectomy*, a procedure that removes the entire tissue of the affected breast including skin, nipple and areola, but leaving the underlying muscle intact. Then there is the *Modified Radical Mastectomy*, a procedure combining removal of the entire breast tissue from the affected breast with the removal of the related axillary lymph nodes of the armpit. The *Radical Mastectomy* involves removal of the entire breast tissue, the axillary lymph nodes and the pectoralis major and minor muscles behind the breast on the affected side of the body, with only the skin required to close the incision being left in place. The *Skin Sparing Mastectomy* preserves most of the normal breast skin, the affected breast tissue being removed through an incision made around the areola. Finally there is the advanced technique of the *Nipple Sparing Mastectomy*, also known as a *Subcutaneous Mastectomy*, in which the nipple and areola are preserved. This is the most difficult mastectomy procedure to perform but it will provide patients with the best possible cosmetic results when combined with immediate breast reconstruction."

If a patient is considering reconstruction (a decision that will usually be taken following advice and consultation with their oncologist, and perhaps also GP and breast care nurse), they will have the opportunity to meet a reconstructive plastic surgeon to determine which type of reconstructive procedure will best meet their needs. One of the first choices to be made is whether to undergo immediate or delayed reconstruction. Immediate breast reconstruction is performed during the same operation as the mastectomy, whereas delayed breast reconstruction is only carried out after having fully recovered from the mastectomy, which might be weeks, months or even years following the mastectomy.

There are advantages and disadvantages associated with both options. According to Dr Rezai, "The advantages of immediate reconstruction include overall better aesthetic results, smaller scars, often fewer surgeries, and only one anaesthetic and recovery period, together with a decreased risk of related emotional and social difficulties. The advantages of delayed reconstruction include the staggered surgery, resulting in easier and shorter recovery after each procedure. Patients also have more time to consider their breast reconstruction options and to make choices. And any additional cancer therapy required after mastectomy will not cause problems at the reconstruction site. However, regardless of whether an immediate or delayed approach is used, it is important for the patient to understand that it may take several procedures to achieve the desired final aesthetic result."

There are two main types of breast reconstruction: Implant Breast Reconstruction and Autologous Breast Reconstruction, the former employing an artificial implant to recreate the breast mound, and the latter using the patient's own tissue from another part of the body to recreate the breast. It is generally recognized that Autologous Breast Reconstruction regularly produces reconstructed breasts with the most natural look and feel possible. Furthermore, a breast reconstructed from natural tissue is there for life, whilst reconstruction using synthetic implants often requires their replacement over time. According to Dr Rezai, "The advantages of Implant Breast Reconstruction are a short and relatively simple surgery, a short anaesthetic and recovery time, no operating on healthy tissue or additional scars elsewhere, and no missing tissue elsewhere in the body. Its disadvantages are a resultant less symmetrical shape match with the remaining natural breast and a breast texture that is not so natural. The technique is also unsuitable for reconstructing large breasts. Autologous Breast Reconstruction produces breasts with the most natural feel and best aesthetic results. It is the most durable and benefits from employing no artificial materials. On the other hand, Autologous Reconstruction is a major operation involving additional scars and possible complications from surgery at other body sites. It also requires a longer hospital stay."

At consultation, a patient's chosen reconstructive surgeon will explain the different types of reconstruction most suitable for them based on considerations of anatomy, prior surgeries, current medical condition, cancer treatment needs and personal preference. The surgeon will normally work closely with the oncologist and radiologist to form a collaborative partnership designed to give the optimum level of care. However it is important to understand that all reconstructive options have both risks and benefits, and each option regularly requires multiple procedures to attain the final desired result.

For more information about reconstructive breast surgery and the options available, including before and after photographs and details of other breast surgery procedures performed by Dr Rezai, reference can be made to his website at <http://cosmeticsurgeryspecialists.co.uk>

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