

Breast reconstruction surgery is performed to replace breast tissue and restore the shape of the breast that has been removed during a mastectomy.

A tissue expander is a device that may be placed:

1. At the time of the mastectomy to maintain the breast skin (immediate)
2. After mastectomy to expand the skin to accommodate an implant (delayed)

In the setting of breast cancer if you are considering reconstruction, a tissue expander is usually the first stage of your reconstruction. This allows you to have your chemotherapy and radiotherapy, if required, without affecting the definitive reconstruction.

Tissue expanders do not affect your oncological management and will not interfere with the management of your breast cancer

Tissue expander

Placement of a tissue expander at the time of mastectomy or after a mastectomy enables conservation or stretching of your breast skin to better allow the second stage of your reconstruction.

The tissue expander is placed inside a 'pocket' created under the skin and the chest muscle. The expander (a silicone implant likened to a balloon) is partially inflated with sterile saline during surgery. A port or valve in the expander enables it to be filled gradually via injections during visits to the consulting rooms over a period of weeks to months to gradually stretch the muscle and skin to the desired breast size.

Once fully stretched, the second stage of the reconstruction is undertaken to exchange the tissue expander for either an implant or flap (DIEP/TRAM)

Questions regarding the need for a tissue expander are often asked and very understandable. The expander provides skin preservation and improves the aesthetic outcome of the final breast reconstruction, which sometimes may not be completed for a number of months due to reasons such as adjuvant oncology treatment.

Breast reconstruction whilst considered a medical procedure in the public health sector, for waiting list purposes, it is usually considered non-urgent and waiting times can apply for reconstruction.

Temporary inflatable tissue expander

bone
muscle

This shows the left side of the chest before the operation to insert a tissue expander. The tissue is mostly flat, because breast tissue was removed during the mastectomy.

port for saline injections
tissue expander

When the tissue expander is in place, it creates a pocket where the implant will eventually be inserted. There is a port through which the saline can be injected.

expanded tissue ready for implant

The tissue stretches and expands each time saline is added. The expander is removed and the implant is inserted in its place.

Post -operative course

Post tissue expander your expected hospital stay is between 4-7 days. You may experience some discomfort, which will be controlled with pain relief. You will be asked to sit out of bed and perform deep breathing and coughing exercises the day following your surgery.

You will have dressings in place over your surgery site that will be managed by hospital staff as per your surgeon's directions. Drains inserted during the surgery will be removed once fluid has adequately stopped draining. You may be discharged with a drain in place.

Approximately one week following discharge from hospital you will attend WPRS for a wound check and in some instances tissue expansion will commence. The number of expansions will depend on the volume required and the expansion process may take 4-6 weeks.

It is important that you are careful when moving around during the early stages of your recovery. It is advisable to avoid any strenuous activity and heaving lifting for around 4-6 weeks or until you are advised by WPRS.

Potential Risks of Surgery

Bleeding/haematoma: any bleeding after surgery is usually minor. However rarely you may bleed enough to require a return to theatre to drain the blood and stop any bleeding.

Infection: uncommon, however if it occurs you may be required to commence antibiotics. If the implant becomes infected it may require removal.

Wound separation/delayed healing: this is uncommon however small areas may break down and require dressing or revision surgery in the future.

Scar widening/hypertrophy: this can occur with any scar. Your wound will be carefully closed however some people may develop widened or elevated scars. At WPRS we will provide carefully follow-up and monitor for this and provide information to avoid this potential complication

Implant rippling or malposition: All attempts are made to minimise this during the operation. The expander is not your final reconstruction and hence any malposition is corrected at your second stage of reconstruction.

Fluid collection (seroma): This can occur in up to 10% of people. If a collection does accumulate then it will need to be drained, which can be generally be performed in the rooms.

Implant rupture. Although rare can occur especially with severe blunt trauma to the implant.

Anaesthetic complications: sore throat, nausea/vomiting, other rare complications (i.e. allergic reaction to anaesthetic) can be discussed with your anaesthetist.

Deep venous thrombosis (DVT)/pulmonary embolism (PE): risk of a DVT is 1 in 100. Rarely these can be fatal if they become a PE. Special precautions are taken in hospital to avoid this. These include: calf compression devices, anticoagulant injections and early mobilisation.

We, at WPRS, pride ourselves in providing you with the best possible experience with your surgery. Certainly if there are any questions or concerns we encourage that you ring WPRS discuss these either with your surgeon or the breast reconstruction nurses.