DIEP/TRAM Flap



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

Flap reconstruction is the use of skin, fat and in some cases muscle from other parts of the body to build the shape of a breast. Flap reconstruction is not suitable for everyone. For example, women who are very thin, had previous abdominal surgery, have diabetes or vascular disease or smoke may not be a suitable candidate.

One of several flap methods may be used and will be dependent on a number of factors such as available tissue, the size of the breast required and availability of adequate blood vessels. Your surgeon will discuss this with you fully to develop a plan that best suits you.

Flap reconstructions are best suited for women who

- Have large breasts
- Women who don't have enough skin to cover an implant
- Women who have had radiotherapy
- Women who have a good amount of abdominal tissue

A CT scan will often be performed before your final reconstruction to determine which reconstruction is most appropriate

What does the operation involve?

TRAM flap refers to a flap made out of tissue and muscle from your abdomen. It is short for a Transverse Rectus Abdominis Myocutaneous flap.

The reconstructive surgeon moves the muscle, along with local skin and fat, to the chest where it is shaped into the form of a breast.

There are two ways a TRAM flap maybe performed: pedicled or free.

TRAM flap reconstruction leaves a long scar across the lower abdomen from one hip to the other. There will also be a scar on the reconstructed breast, and there will be little or no feeling in the skin over the breast.



Pedicle TRAM Flap

In this method the muscle is left attached to its original blood supply and it is tunneled under the skin to the breast. This type of reconstruction takes approximately 3-4 hours and will require a hospital stay of 4-7 days.

Free TRAM Flap

In a free TRAM flap, the surgeon uses microsurgery to completely divide the muscle from its blood vessels, and re-attach them to new vessels in the chest or under the arm. This allows for creating a larger breast and a more aesthetic final result. It is a more complicated and longer operation requiring special facilities and expertise. A free TRAM flap operation usually takes 6-8 hours and requires at least one week in hospital. Full recovery from the surgery takes up to six weeks.

Warrnambool Plastic & Reconstructive Surgery

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DIEP flap reconstruction

DIEP is a version of a TRAM flap, which utilises only the blood vessels, fat and skin from the abdomen. Unlike the TRAM flap, a DIEP does not involve the rectus abdominal muscle thus preserving abdominal strength and integrity. The ability to perform a DIEP or a TRAM will be determined by your pre-operative CT Scan. Advantages of this method are a quicker return to normal activities and a smaller risk of hernia. A free TRAM flap operation usually takes 6-8 hours and requires at least one week in hospital. Full recovery from the surgery takes up to six weeks.

Post-operative Course

After your breast reconstruction you will require a hospital stay of between around 4-10 days.

You may experience some discomfort, which will be controlled with pain relief. You will have a compression dressing over your breasts and abdomen and you will be encouraged to perform deep breathing and coughing exercises following your surgery. Dressings will be placed over your surgery site.

After surgery, nursing staff will closely monitor both your observations and the flap to ensure it has a good blood supply. You will have an intravenous drip and a urinary catheter in place and be restricted to bed for the first 24 -48 hrs. Any drains inserted during the surgery will be removed once fluid has adequately stopped draining. On some occasions it may be necessary to leave the drain tubes in place when you have been discharged. If this is the case the nurses at WPRS will follow up on the care of these.

Approximately one week following discharge from hospital you will attend WPRS for a wound check and education on scar management will begin. It is important that you are careful when moving around during the early stages of your recovery to allow healing to take place. There will be some swelling and bruising postoperatively. This will continue to improve over time; it will take many months to achieve your final result.

After a flap reconstruction you should avoid heavy lifting and exercise for about six weeks. A physiotherapist will see you in hospital and give you appropriate exercise to attend at home.

You will be advised to not drive for approximately 4 weeks. You may also find it uncomfortable as a passenger during the first few weeks and may require the aid of a small pillow under the seat belt for comfort.

Potential risks of surgery Complications

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.

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.

Asymmetry: It is very uncommon for both breasts to be exactly the same size and shape pre-operatively. We endeavour to achieve symmetry post operatively however it cannot be guaranteed.

Wound separation: Part of the abdominal or breast wound partially opens. This necessitates the need for frequent dressings over several weeks. The areas generally heal without surgical intervention.

Fat necrosis: occurs when fat in the flap breast does not have adequate blood supply, which causes it to die (fat necrosis). These areas in the reconstructed breast can feel firm.. The risk of fat necrosis is significantly increased in smokers

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St. John of God Warrnambool, Suite 5 Wentworth St. Consulting Suites, 136 Botanic Rd. Warrnambool, Victoria 3280 tel 03 5562 5330 fax 03 5562 5360 email info@wprs.net.au **Abdominal hernia:** May occur in either TRAM/DIEP flaps. Rates are 2-4%. To reduce the risk of this occurring, the surgeon may insert mesh into the abdomen to replace the muscle.

Loss of the flap: 1-2% of flaps fail due to poor blood supply. The blood vessels supplying the flap can kink or clot, causing loss of circulation and partial or complete loss of the flap. Good pre-operative planning and post-operative care minimize this risk.

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. If there are any questions or concerns we encourage that you ring WPRS discuss these either with your Surgeon or the breast reconstruction nurse.

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