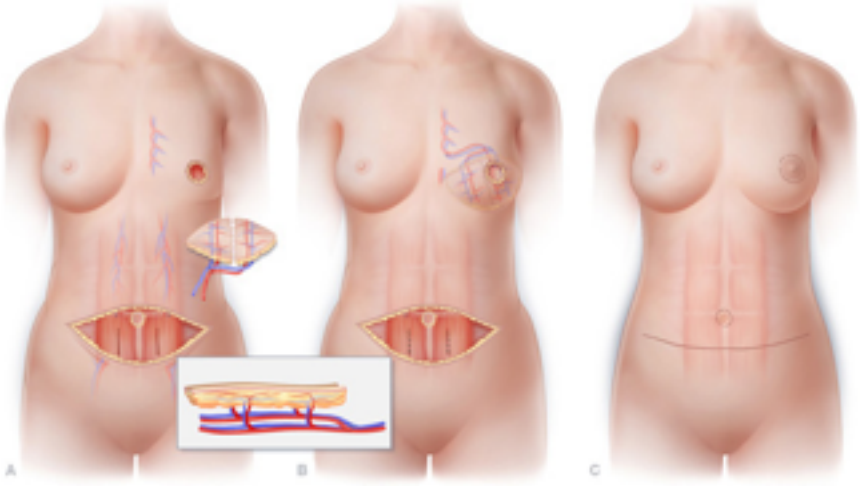
Advanced Breast Reconstruction Surgery

Deep Inferior Epigastric Perforator (DIEP) Flap Procedure

THE DIEP

DIEP breast reconstruction is an advanced technique in autologous (own tissue) transfer. The DIEP is a refined version of the TRAM flap, Unlike the TRAM flap, the DIEP preserves the rectus abdominus muscle(s) thus allowing for preservation of abdominal strength, integrity and reduces the chance of developing an abdominal bulge. This breast reconstruction procedure uses tissues harvested from your lower abdomen. The abdominal skin, fat, and blood vessels (that supply this tissue) are removed and replanted to create a natural-looking and aging breast. The abdominal wall tissue is characteristically similar to breast tissue, enhancing the aesthetic outcome. If you are requiring an immediate mastectomy, Skin-sparing mastectomies are now being performed by many breast surgeons, instead of removal of the entire breast. In a skin-sparing mastectomy, the breast tissue is removed leaving the outer breast skin "envelope" intact. I will then fill the "envelope" with transferred abdominal tissue, which creates a breast that is very close to the original.



THE CLINIC

I perform all DIEP reconstructions in a team dedicated to microsurgical tissue transfer here at the Royal London Hospital (RLH). I see all patients who are interested in this reconstruction in a breast clinic. If you would like to discuss your goals for reconstruction further then there is a clinical psychologist available at the Royal London Hospital and would have to be approached for an appointment. I will, at this time, examine you to see how I can perform a breast reconstruction with a microsurgical flap. Women who have had C-sections are candidates for a DIEP reconstruction, An exception may be if you have extensive scarring from previous abdominal surgeries. I will also go through all the operation details and post-operative recovery which is included in this information sheet. I will book you to have a CAT scan prior to the surgery. Visualization of the perforating blood vessels to the lower abdomen helps to make the selection of the "right" blood vessel during the operation easier. This also helps to reduce operating time and also will give a good indication if I need to take a small amount of abdominal muscle with the flap when the perforators are very small. If you smoke, please stop for at least a minimum of 3 weeks, prior to surgery. The nicotine in the smoke(and in patches) can jeopardise the success of the surgery, where the vessels and healing are concerned. The longer the abstinence, the greater potential for success. It is best not to resume smoking for at least 3-6 weeks post surgery. The breast team would have also advised you on a post-operative bra and hopefully this will be fitted prior to surgery.

THE SURGERY

You will be admitted on the day of surgery to Ward 12C at the RLH. Prior to the surgery I will go through the consent form and mark the flap on the abdomen and also the breast and sometimes the location of the perforating blood vessels via a simple Doppler probe. The incision for the abdominal flap extends across the entire lower abdomen, from one hip to the other. The scar is usually well below the level of the belly button but, is not quite as low as the usual tummy tuck incision.

The operation takes about 6 hours for a unilateral DIEP and up to 10 hours for a bilateral reconstruction due to the complexity of the stages of this operation but overall you will be away from the ward most of the day. Basically the stages are the mastectomy (if required), raising of the abdominal tissue on its blood vessels for transfer to blood vessels in your chest wall. To do this I need to remove a small part of a rib as the vessels lie directly below. This will not be a visible defect as the abdominal flap will go over this area. If a skin sparing mastectomy is performed there will only be a small disc of abdominal skin visible on the chest wall. If it is a delayed reconstruction there will be an elliptical abdominal skin patch to recreate the breast mound. The belly button has to be repositioned as the upper abdominal skin is pulled down towards the pubis to close the abdominal defect where the flap was taken.

POST-OPERATIVE RECOVERY

You will have at least 3 drains (to remain in for up to 5 days) and usually will be removed before your discharge home (if prolonged drainage you can go home with them). You will wake up in a bent position so that the abdomen is relaxed. You will have several intravenous lines in, a morphine pump controlled by you for pain relief and you will also have a urine catheter. You have direct control over your pain relief and we will make sure that you are as pain free as possible. The discomfort is usually from the tummy and keeping in a bent position in the bed helps relax the tummy muscles and aids pain relief. From recovery you will go to a side room in Ward 12C and a dedicated nurse will come and see you to check the reconstruction every ¼ hour to start and then hourly for the next 48 hours. To keep you and the flap warm during this time you will have a warming blanket on and to keep the circulation going some compression pumps on your legs. If you think you will feel hot, please feel free to bring in a small electric fan to cool your face. For the first post-operative night you will not be able to eat or drink, but you will be encouraged to drink plenty the next day. At the earliest opportunity the bra will be put on to then allow you out of bed, usually post operative day 1-2. Please see Vicky Wood (contact is below) over at Barts for a bra fitting prior to your hospital stay as you will need a bra post-operatively. The bra has to be front

fastening and preferable to have Velcro adjustable shoulder straps. The recommended bra is an Amoena style “Bea” designed for this surgery but unfortunately they are not produced any more. I recommend the **Royce SILVER** post surgery bra, ROY736 code. These are available from **Zest** website and various others are much cheaper than getting from the company, should be about £17.

The average length of stay is 5 – 6 days and the plastics team, breast team and the physiotherapist may all visit you during this time. There are minimal dressings that are glued on and stay on the wound for 12 days after surgery and you will be seen in the plastics dressing clinic for their removal. The dressings are designed to be waterproof, so by day 4 after your operation you can get into the shower which is en-suite to your room. By this time most of the intravenous lines, most of the drains and also the urine catheter would have been removed

I will see you again in clinic at about 6 weeks post-operative. I recommend no abdominal core exercises for at least 12 weeks and also not to undertake any flights in this time due the increased risk of blood clots. There will be a physiotherapy instruction leaflet available to you describing the allowed and recommended exercises after your operation.

MAIN COMPLICATIONS

1) **Return to theatre**
   - due to a blood clot in the vessels
   - due to a blood clot under the flap
   - chance of this is about 1-2% (ie 2 people in 100)
   - you will be consented for return to theatre in your main consent form.

2**)** **Blood clot** in the legs - 1%. You will be given a blood thinning injection on the ward before you go down to the theatre. Post your surgery you will have compression stocking on both legs.

3) **Flap loss** – completely lost due to mostly blood supply problems, 1-2% of all flaps. It may require a temporary expander to be put in place if having a skin sparing mastectomy.

4) **Partial loss** – 5%, ie loss of part of the skin of the flap and the underlying fat that will require some adjustment at the later stage.

5) **Fat necrosis** (firm tender lumps of fat in the flap)10-15%, usually no further surgery is required as settle over 6 months.

6) **Wound breakdown** – 5% (more in smokers, up to 30%)to abdominal wound and the breast wound.

7) **Abdominal bulge** – dependent on the amount of muscle taken, 5-10% on the side of the abdomen the flap of skin was taken.

OTHER STAGES

All will be discussed in clinic with me on a personal basis.

Stage 2 – If this is required, this is the "tweaking" stage performed 4-6 months after the first stage. During stage 1, we are mainly focused on transferring the flap and creating the mound. You may be uneven in size and shape. During stage 2, we will aim to create a better shape and size breast. Stage 2 is a much easier surgery than stage 1 and is usually a day case. Also this stage may just require the forming of a nipple on the reconstruction and no adjustment to the flap. If this is the case it can be done under local anaesthetic and take about 30minutes.

Stage 3 - This is the stage where the finishing touches are done; the tattooing. Some women choose to have ink tattooed onto the areas around the nipple, to create the look of an areola. Some women are fine without the tattooing. The tattooing is performed about 3 months after the nipple is reconstructed and is performed by a senior nurse, Flordelyn Selim.

CONTACTS

Miss Payne's secretary – Julie Bennett, RLH, 0207 3777 192 - Julie.bennett@bartshealth.nhs.uk

Physiotherpist – **Karen Robb, Karen.robb@bartshealth.nhs.uk**

Breast care team – please contact your individual breast care nurse

Dr Hannah Falvey – Clinical Psychologist, 0207 3777 195 or 0207 3777 192

Victoria Wood – Bra fitting service, Barts, 0203 4655 626

Flordelyn Selim – tattoo specialist nurse RLH, Extension 47464

Plastics Dressing Clinic (PDC) – Ground floor OPD RLH, 0203 5946 637

Plastic Surgery Clinic – Ground Floor OPD, RLH, 0203 5946 691

WEBSITES

www.bapras.org.uk - patient information sheet on breast reconstruction

http://cancerhelp.cancerresearchuk.org - breast reconstruction using body tissue.

If you have any questions, please write them below and bring the sheet with you to the clinic

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