

Breast reconstruction with profunda artery perforator- PAP flap.

This leaflet explains breast reconstruction using a PAP flap, including the benefits, risks, and alternatives. It also outlines what to expect before, during, and after your hospital stay. The procedure is also known as a free tissue transfer.

If you have any questions, please speak to a member of your healthcare team.

What is a PAP flap?

A PAP flap is a method of breast reconstruction that uses skin, fat, and small blood vessels taken from the upper inner thigh, just below the buttock crease. This tissue is then transferred to the chest to create a new breast shape following a mastectomy (removal of the breast).

To do this, the blood vessels from the flap are carefully connected to small blood vessels in your chest or armpit (axilla) using microsurgery and a microscope.

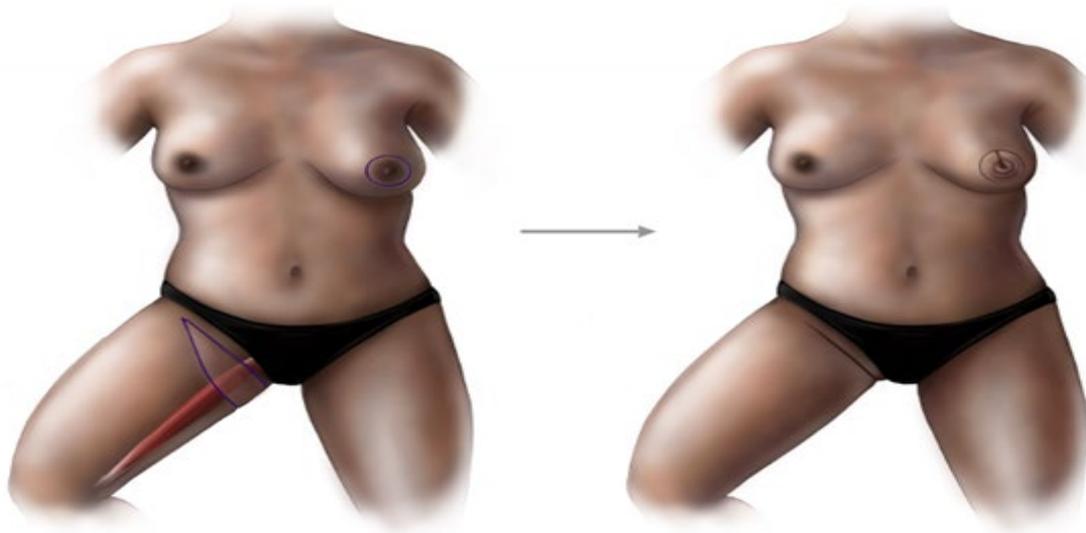
The PAP flap is often chosen when a deep inferior epigastric perforator (DIEP) flap (which uses tissue from the abdomen) is not suitable. Reasons may include:

- Previous abdominal surgery.
- Low abdominal fat (in slim patients). Lack or not enough abdominal fat to reconstruct in this method.
- A personal preference to avoid an abdominal scar.
- Other medical conditions affecting the abdomen.

Like other types of breast reconstruction, if suitable a PAP flap can be performed:

- Immediately – at the same time as the mastectomy.
- Delayed – sometime after you have healed from the mastectomy.

The illustrations are provided as a general representation of what the breast reconstruction looks like. However, every reconstruction is individualised therefore scarring may differ depending on the individual. Your consultant will discuss this with you.



Images from <https://restore-bcr.co.uk>

Why should I have a PAP flap?

Breast reconstruction is a personal choice, but many people choose it to restore the shape of the breast after mastectomy.

There are many good reasons to use your own tissue to reconstruct your breast as opposed to implant reconstruction. These are:

- **Feels more natural**- your new breast is made from your own body, so it looks and feels more natural. It changes with you over time, just like the rest of your body. However, it will never feel the same as your original breast.
- **Long-lasting result**- once it heals, it usually lasts for life without the need for replacements. Unlike reconstruction with implants, you do not need to worry about the implant bursting (rupture), needing replacement being or becoming tight and uncomfortable overtime (capsular contraction).
- **Comfortable and soft**- your own tissue feels softer and more comfortable than an implant.
- **Peace of mind**- many women feel re-assured knowing their breast is rebuilt with their own tissue, not with something artificial.

It is optional and will not affect the success of your cancer treatment. The priority is always to treat the cancer.

What are the risks?

This is a complex operation, usually lasting between 4- 6 hours for one breast and 6- 8 hours for both breasts. In some cases, it can take longer. Like any other surgeries, it carries some risks:

Risks that can occur after any operation:

- **Bleeding/haematoma** – Bleeding can occur. Nurses will monitor for signs. Occasionally, further surgery may be needed to explore where the bleeding is.
- **Pain** – Some pain is expected. Please let the nurses know so they can give you the right pain relief.
- **Scarring** – Scars will run horizontally in the crease under the buttock or along the inner thigh. Usually, well hidden in underwear or swim wear. They may appear red and raised at first and can take up to 12 months to settle.
- **Wound breakdown** – Small parts of the wound may open and leak fluid. Dressings can help support healing.
- **Infection** – Signs include redness, swelling, pus, or a high temperature. Antibiotics will be given if needed.

Risk of any major surgeries:

- **Blood clots** – A clot in the leg deep vein Thrombosis (DVT) or lungs pulmonary embolism (PE) is rare. You'll be given compression stockings, calf pumps, and injections to reduce this risk.
- **Reaction to anaesthesia**- rare, but the anaesthetist monitors you closely to keep you safe.
- **Longer recovery**- healing and getting back to normal can take from 6 - 12 weeks.

Risks specific to PAP surgery:

- **Flap failure** – In rare cases (1–2%), the blood supply to the flap may not work properly. This usually happens in the first 24–48 hours. If this occurs, another operation is needed. The flap can often be saved when the problem is identified and treated quickly. If this is not possible then the flap will not survive and may have to be removed.
- **Partial flap failure**- it is more common that only part of the flap does not survive. Usually this can be managed with dressings but may involve another surgery.
- **Asymmetry** – The reconstructed breast will not exactly match the other. If needed, further surgery can help improve symmetry, but complete symmetry is not achievable.
- **Uneven thighs** – The PAP is harvested from the thigh, and sometimes this can result in noticeable differences in the thigh size and shape.
- **Changes in sensation**- numbness or changes in sensation in the breast or thigh area. This numbness usually fades in several weeks. Occasionally this may last longer or may be permanent.
- **Risk to the chest wall**- when preparing the blood vessels behind the ribs, there is a very small risk of damaging the lining of the lung. This is very rare but may require extra treatment.
- **Extra skin lumps (dog ear)** – small folds of the skin can appear at the end of the inner thigh scar. These are harmless and can often be corrected with a small procedure later if the surgeon feels an operation can improve this.
- **Some minor complications can occur including:**

- **Seroma** – A collection of fluid can build up in the breast or inner thigh area. This may need to be drained with a needle or left to settle on its own. Compression garments can help to reduce the formation of this.
- **Fat necrosis** – Some fat may not survive, causing a firm or lumpy area under the skin, or fluid leaking through the wound. It usually goes away by itself
- **Delayed wound healing**- Some areas may take longer to heal but are expected to heal with dressings and time.

Are there any alternatives?

Yes. Other options include:

- Implant-based reconstruction (using implants or tissue expanders).
- No reconstruction – some people choose to wear a prosthesis instead.

Your surgeon will talk through the options suitable for you.

How can I prepare for a PAP flap?

- Consultation –You will meet with the plastic surgical team, who are highly skilled in PAP flap reconstruction. They will discuss the benefits, risk, and what to expect before, during, and after surgery. This is your chance to ask questions. If you have more questions later, contact the plastic surgery clinical nurse specialist on 0208 725 0473 (Mon–Fri, 9:00–16:00).
- If you smoke, you will need to stop smoking completely before surgery. Ideally it would be 6-8 weeks for patients having delayed reconstruction. Smoking increases the risk of complications such as tissue loss (flap failure) and wound breakdown.
- Healthy eating – A balanced diet helps healing.
- Medications- tell your surgeon about all medications, vitamins, or supplements you take. Some medications/supplements may need to be stopped or adjusted before surgery, especially blood thinning drugs.
- What to bring to hospital:
 - A post-surgery bra (front-opening, one size larger, non-underwired).
 - Compression post op pants.
 - Slippers, dressing gown, toiletries, and loose, button-up pyjamas.
- Arrange support – You may need help with cooking, shopping, cleaning, childcare, or caring for others for 2-4 weeks.

Asking for your consent

It is important that you feel involved in decisions about your care. Before surgery, you will be asked to sign a consent form. This confirms that you understand the procedure and agree to go ahead. You can withdraw your consent at any time. If you want more information, please ask your team for a copy of the hospital's consent policy.

What happens on the day of surgery?

You will come to the surgical admissions lounge, where nurses will check your observations and complete the paperwork. You'll also meet the anaesthetist and the surgical team, who will go over the consent form and mark your skin.

You will have a general anaesthetic and will be asleep throughout the procedure.

Will I feel any pain?

Some pain is expected. You will receive regular pain relief. If needed, the hospital's pain team can help adjust your medications to keep you comfortable.

What happens after the operation?

After surgery, you will go to a high-dependency area or post anaesthesia care unit (PACU) for close monitoring.

You'll have:

- A drip- small tube attached to a needle inserted into a vein in your hand or arm so that medications and fluids can be given as necessary. A patient - controlled analgesia (PCA) pump is attached to the drip. This has a button you can press yourself to get extra pain relief when you need it.
- Drain- one or more small tubes that allow excess fluid and blood to drain away from the operation site into a plastic bottle.
- A urinary catheter- a rubber tube going into your bladder automatically draining urine. this allows careful monitoring of the level of fluid in your body.
- A heated blanket - to support flap blood supply.

Your vital signs and flap will be checked every 30 minutes to ensure good circulation.

You may feel tired and drowsy. We aim that you will start to mobilise on the first day after your surgery, usually first thing in the morning. This include sitting up in a chair and standing with help. Then you will move more each day and will be walking and using stairs before going home.

Going Home

Most people go home 4–7 days after surgery but this varies depending on the individual and progress made. It is normal to feel tired after operation. We recommend having someone at home to help with basic tasks for at least first week.

Feeling emotional- seeing your new breast can bring a mix of emotions. Talk to family, friends, or a support group if you feel anxious or overwhelmed. Links to a support group are included at the end of this information sheet.

Rest – your body needs energy to heal. Give yourself time to recover.

Do not:

- Lift heavy objects (e.g. children, kettles, vacuum cleaners) for 4 weeks

- Drive for 6 weeks but this can be longer if you are still having dressings. You are advised to notify your car insurer that you have had surgery to check you are still covered).
- Return to work until at least 6 weeks, depending on your job

Gentle movement is encouraged. Short walks can help circulation and reduce the risk of blood clots. Avoid sports and strenuous exercise for 3 months.

You can start gentle core- strengthening activities, such as Pilates classes after 3 months. It will help strengthen your muscles and improve posture. Always check with your plastic surgical team before starting new exercises.

When to seek help

If you notice signs of infection (redness, swelling, pus, fever), contact your GP or the plastic surgery dressing clinic straight away. If your GP is unavailable, ring 111 or go to the urgent care centre at St George's Hospital. Early treatment is important.

Will I have a follow-up appointment?

You will be seen at the plastic surgery dressing clinic at St George's Hospital within 7-10 days post discharge. If you haven't received an appointment within 7 days after discharge, contact the ward you were discharged from.

You will also have a follow-up appointment with your surgeon after 6-8 weeks after operation.

Useful sources of information

<https://www.cancerresearchuk.org/about-cancer/breast-cancer/treatment/surgery/types-surgery>

<https://breastcancernow.org/information-support/support-you/someone-me>

<https://restore-bcr.co.uk>

www.qvh.nhs.uk

Contact us

If you have any questions or concerns please contact the Plastic dressing clinic nurse on 0208 725 0473 or email plasticdressing.clinic@stgeorges.nhs.uk

Plastic surgery clinical nurse specialist can be contacted on 02086721255 bleep 7470 (Monday – Friday 09:00- 16:00)

Additional services

Patient Advice and Liaison Service (PALS)

PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9.30am and 4.30pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough wings (near the lift foyer).

Tel: 020 8725 2453 **Email:** pals@stgeorges.nhs.uk

NHS Choices

NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health.

Web: www.nhs.uk

NHS 111

You can call 111 when you need medical help fast but it's not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones.

Tel: 111

AccessAble

You can download accessibility guides for all of our services by searching 'St George's Hospital' on the AccessAble website (www.accessable.co.uk). The guides are designed to ensure everyone – including those with accessibility needs – can access our hospital and community sites with confidence.



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