Forehead flap reconstruction

If you have a wound on your nose, for instance after the surgical removal of skin cancer, we may use forehead flap reconstruction to repair your wound. This leaflet explains more about the procedure, including the benefits, risks, any alternatives and what you can expect when you come to hospital. If you have any further questions or concerns, please speak to a doctor or nurse caring for you.

Medical terminology
- **Reconstruction** – Surgical repair of a wound.
- **Skin graft** – Taking a separate piece of skin from a healthy site on your body, and transplanting it over a wound.
- **Local skin flap** – Freeing a layer of skin and stretching it across a wound.
- **Electrocautery** – Use of heat to stop bleeding.

What is a forehead flap reconstruction?
A forehead flap reconstruction is a surgical technique used to repair a wound on the nose.

It is done in two or three stages over a period of weeks or months. It involves taking skin from the forehead (called a ‘flap’) with its own blood supply and attaching it to the nose to replace the missing skin. The flap remains attached until the nose is fully healed. Once the nose has healed, the flap from the forehead and nose will be separated. A surgical procedure to thin the skin on the nose may be required to achieve a better cosmetic result, as the flap may initially appear bulky.

The end result is a scar that runs up your forehead where the skin was taken, and new skin on your nose which covers the original wound and recreates the shape and function of the nose.

Why should I have forehead flap reconstruction?
This technique is used to repair wounds on the nose that are difficult to repair using other surgical techniques, such as a skin graft or local skin flap. It also makes sure that the new skin on the nose has its own blood supply for a period of time and therefore has the best chance of adhering to the wound.

Most importantly, the procedure helps maintain the full function of the nose and gives a good cosmetic result, as the skin is more likely to match that on your nose.

What are the risks?
In general, the risks of any operation relate to the anaesthetic and the surgical procedure itself. In most cases you will have a general anaesthetic combined with a local anaesthetic, which may be injected in and around the forehead and nose.

For more information please see our leaflet, Having an anaesthetic - please ask a member of staff for a copy or see our website:
Forehead flap surgery is commonly performed and is generally a safe surgical procedure. Before suggesting the operation, your surgeon will have considered that the benefits of the procedure outweigh any disadvantages. However, in order to make an informed decision and give your consent, you need to be aware of the possible side effects, risks and complications. These include:

- **Bleeding** – There is a risk of bleeding both during and after the operation, although this is usually not enough to be harmful. It is controlled through the use of electrocautery during the procedure and regular dressings post surgery. If you are on blood thinning medication you may require some extra treatment to control the bleeding before and after surgery.

- **Pain** – You may experience some pain or discomfort after the operation. Your surgeon will advise you on what pain relief is recommended and how often it should be taken.

- **Infection** – Infections are a rare complication as the procedure is performed in a sterile environment. You will be given antibiotics after the surgery and prescribed antibiotics to take when you go home. You may be asked to use an antibiotic ointment.

- **Scar** – Any type of surgery performed on the skin will leave a scar. You will have a scar on the nose where the original wound was, and a scar on the forehead where the skin was taken from. Scars are thin pink lines to start with and they then fade to a pale/white colour. Occasionally there may be an area on the forehead which will be left to heal with dressings. This may result in a flat disk–like scar. You can get advice from your nurse or doctor on how to minimise the appearance of scarring. There is also support in place if you are interested in scar camouflage after the procedure.

- **Lumpy scar** – Very occasionally the scars can become a little bit lumpy and sometimes darker. This can be managed with steroid injections to minimise them and improve their appearance.

- **Flap failure** – There is a very small risk after the procedure that the skin from the forehead does not adhere to the nasal wound. In this situation, we would have to separate the skin and find an alternative means of repairing the wound. This would not necessarily result in the best function or cosmetic outcome.

- **Numbness** – The face has a large number of nerves which provide normal feeling and sensation. Occasionally during this procedure these nerves are compromised, meaning you will lose some sensation locally. This may occur on the forehead and will likely happen on the nose as the skin has been replaced. The sensation may return with time, but the numbness can also be permanent.

- **Hair growth** – Because the flap has been taken from just below the hairline on the forehead, occasionally hair can be transplanted with the skin. This may result in fine hair growing on the nose. If this should occur, you can speak with your surgeon about how this can be treated.

- **Thrombosis / blood clots** – This means a clot developing in the leg veins or the lungs. It may occur after any surgery, but some procedures carry more risk than others and some people are at greater risk. Your surgical team will assess your own particular risk and ensure the appropriate steps are taken to minimise this.
Are there any alternatives?
Once the size and extent of your wound is clear, your surgeon will discuss any alternative options for reconstruction such as a skin graft or local skin flap.

If the wound is small, there may also be an option to allow the wound to heal naturally with dressings. For larger, more complex wounds however, a forehead flap is the only technique that will provide the tissue required to reconstruct the nose. You should be informed of all options before undergoing surgery.

How can I prepare for a forehead flap reconstruction?
You will need to take time off work for the surgery. Depending on your type of work, you may want to ask for at least three weeks initially. This will allow for the first stage of reconstruction, the wound care and any removal of stitches. Knowing the date you are booked in for the next stage of the procedure will also help you decide how much time you will need off. If you do not work, you may want to ensure you are not too busy during these few weeks as you will be attending hospital for stitch removal and dressing changes.

If you wear glasses, this will become difficult as the skin from the forehead sits between the eyebrows during the time it takes for the nose to heal. You may want to ensure you have a family member or friend who is able to assist you at home if needed, or wear contact lenses where possible.

Your surgeon will let you know if you need to fast before your surgery – this will depend on whether you require a general anaesthetic or a local anaesthetic. Please let us know if you are taking any regular medicines and if you have any allergies to medicines. If you are taking antiplatelet medicines (such as aspirin or clopidogrel) or any anticoagulant medicines (such as warfarin or rivaroxaban), then you may need to stop them temporarily around the time of the procedure. If you have diabetes and you are fasting before the procedure, then you may need to alter the dose of your diabetes medication. Your surgeon will let you know if you need to make any changes to your medicines – please ask if you are unsure.

Smoking can increase the risk of complications. If you smoke you we would recommend you stop or cut down before your surgery. If you would like to give up smoking, please speak to your nurse or call the Trust stop smoking service on 020 7188 0995, or call the NHS Smoking Helpline on 0300 123 1044.

For more information about preparing for your operation please see our leaflet, Having surgery at Guy’s and St Thomas’ Hospitals. Please ask a member of staff for a copy or see our website: https://www.guysandstthomas.nhs.uk/our-services/theatres/patients.aspx

Consent - asking for your consent
We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

If you would like more information about our consent process, please speak to a member of staff caring for you.
What happens during forehead flap reconstruction?
Before the surgery, a member of the surgical team will explain the procedure and answer your questions. They will also make sure you are still happy to proceed and go through the consent form with you again.

You will also be seen by an anaesthetist who will make sure you are fit and well enough for surgery. You will then have a drip put in your arm, and when you are ready for surgery, the anaesthetist will give you some medication through the drip to help you fall asleep. For more information about having an anaesthetic see our leaflet, Having an anaesthetic (link on page 1).

Occasionally, when patients are not suitable for a general anaesthetic, the surgeon may suggest performing the procedure using local anaesthetic instead. This would mean having injections in the skin to make it go numb. You would be awake throughout the procedure and may be offered some light sedation or medication to help you relax.

The forehead flap reconstruction is traditionally performed in two to three stages approximately three to six weeks apart, depending on your surgeon.

Stage one – creating the flap
This stage can take between one to four hours, depending on the size and location of the original wound. It is usually performed under a general anaesthetic.

- A template in the shape of the wound is placed just under the hairline on the forehead. The site of the flap extends to the inner eyebrow. The flap of skin is cut and then turned upside down and secured onto the wound on the nose. This is done using small stitches or surgical glue.
- Once the flap is in place, the area on the forehead where the skin was taken from will be sewn up too. Occasionally, depending on the size of the wound, there may be an area which will be left open to heal with dressings.
- Sometimes, the nose may require some support through the use of cartilage, which is generally taken from your ear or inside your nose. This is to support the shape of the nose. This is a straightforward process which will be discussed with you before your surgery.
- You may stay in hospital for up to two days after this stage.
Stage two – thinning the flap
Occasionally, the skin from the forehead is thicker than that naturally found on the nose. This can give a bulky appearance to the nose. To fix this, the surgeon can thin the flap to make the contours appear more natural and create a more desirable look. This can be done under a general or local anaesthetic. This involves:

- Making a cut along the same scar line on the nose and lifting the skin.
- Removing the bulky tissue underneath.
- Stitching the lifted skin back in place.
- You will have a dressing applied and will be able to go home on the same day.

Thinning the flap

Stage three – separating the flap
This stage is performed once the flap has had a chance to heal well on the nose. Depending on your surgeon and your general health, this may be performed under a general or a local anaesthetic, as explained above. You will be advised by your surgeon before your surgery what to expect.

- The skin between the forehead and nose will be surgically separated, and the skin on the nose stitched into place with small stitches.
- The forehead skin will also be stitched into place to complete the surgery.
- You will have dressings applied and will usually be able to go home on the same day.

Separation of the flap  End result
Will I feel any pain or discomfort?
You may experience some pain and discomfort after your operation around the site of your wound. This is usually controlled through the use of over-the-counter painkillers. Your surgeon will be able to advise you on which pain relief medication is best.

As the flap has its own blood supply and remains open it is likely you will experience some bleeding and oozing around the eyes and nose, creating some discomfort. You will have a dressing in place which may need to be changed regularly until the oozing has stopped. This usually takes one or two days. You may get some swelling around the eyes after the surgery, which is to be expected and should settle within a week. You may also experience headaches due to the nature of the surgery. This can be controlled with painkillers as mentioned above.

What happens after your reconstruction?
After the first stage of the procedure you will usually remain in hospital for one or two days. This depends on the extent of your wound and on your support system at home. You may also be sleepy from the general anaesthetic.

If your stitches need to be removed, you will have an appointment booked a week after each stage of your surgery. You may be asked to attend hospital for dressing changes in between times. This will be arranged by the nurse or doctor who sees you.

What do I need to do after I go home?
After each stage of this procedure it is important to rest and avoid any strenuous activity. If you work, you may want to take time off until all the surgery is complete. You may also want to postpone any social engagements. This is particularly relevant after the first stage of the reconstruction, as the flap can cause some bleeding and oozing. This may require regular visits to the hospital for dressing changes, which can be time-consuming and tiring.

If you do experience any bleeding, it may be advisable to sleep on two pillows at night and use old bed linen or a towel until it stops.

The second and possible third stages of the procedure are more straightforward than the first and there are no open or raw areas, so you will not require as much time to recover. You will be instructed on whether you need any dressings or antibiotic ointment to use at home. This should be provided or prescribed if you do. It is still advisable to rest and avoid strenuous activity for at least two weeks after each stage.

Will I have a follow-up appointment?
Yes, you will require follow-up appointments after each stage. Stitch removal will be a week after each stage, however you may be required to attend more often for dressing changes. You will be advised on your follow-up appointment times as you go along.

What support is available?
Throughout this procedure, particularly after stage one, you may experience some anxiety due to the appearance of the flap. It is important to remember that it is not the final result and you will see a change and improvement at each stage. It may take some time for your skin to adjust and feel ‘normal’ again and it is natural to feel anxious as you are going through a physical change.
If you would like to speak to someone about how you are feeling either before or after the surgery, or if you just want some support or information, please contact either the clinical nurse specialist or the clinical psychologist on the numbers below.

Alternatively, the charity organisation Changing Faces has online information and advice on coping with physical change. They also provide a skin camouflage service for minimising the appearance of scars after your surgery. You can talk to the nurse or doctor caring for you about how to be referred.

Contact us

- If you have any questions or concerns about your forehead reconstruction, call the clinical nurse specialist on 020 7188 7188 extension 52518 – please leave a message and they will call you back.

- For clinical concerns or wound dressings after your surgery, call the plastics dressings clinic on 020 7188 7188 extension 54518.

- For administrative queries, call the plastics admissions team on 020 7188 8882 – please leave a message and someone will call you back.

- For emotional and psychological support contact the clinical psychologist on 020 7188 7188 extension 51874, or email danuta.orlowska@gstt.nhs.uk

Please contact your GP or attend your local Emergency Department (A&E) if you have any urgent medical concerns outside of working hours.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets
Useful sources of information

Changing Faces
Provides information and support on physical change.
**t:** 0300 0120 275  **e:** info@changingfaces.org.uk  **w:** www.changingfaces.org.uk

Changing Faces - Skin Camouflage Service
Offers advice on minimising the appearance of scars.
**t:** 0300 0120 276  **e:** skincam@changingfaces.org.uk

Pharmacy Medicines Helpline
If you have any questions or concerns about your medicines, please speak to the clinical nurse specialist or other member of staff caring for you or call our helpline.
**t:** 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns
For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.
**t:** 020 7188 8801 (PALS)  **e:** pals@gstt.nhs.uk
**t:** 020 7188 3514 (complaints)  **e:** complaints2@gstt.nhs.uk

Language and Accessible Support Services
If you need an interpreter or information about your care in a different language or format, please get in touch.
**t:** 020 7188 8815  **e:** languagesupport@gstt.nhs.uk

NHS 111
Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.
**t:** 111

NHS Choices
Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.
**w:** www.nhs.uk

Get involved and have your say: become a member of the Trust
Members of Guy’s and St Thomas’ NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, and to become a member:
**t:** 0800 731 0319  **e:** members@gstt.nhs.uk  **w:** www.guysandstthomas.nhs.uk/membership