



North Bristol NHS Trust

Departments of Dermatology & Plastic Surgery

Guide to Mohs Micrographic Surgery

Information for patients



Top tips for your surgery visit

Please be aware that your surgery could **potentially take the whole day**, and usually takes at least half a day.

Please bring some lunch. Coffee and tea are available.

Please make arrangements for **someone to collect you** at the end of your procedure. It is not advisable to use public transport or to drive yourself.

Please wear light, loose and easily removable clothes.

Make sure you arrive in good time for your 8am appointment.

The Mohs micrographic surgery procedure explained

Mohs micrographic surgery is a highly effective treatment for certain skin cancers. It can offer the best chance of cure whilst only taking the smallest amount of tissue necessary. The treatment allows the tumour to be removed completely bit by bit in one visit to the hospital, minimising the amount of normal skin removed and potentially reducing scarring.

Each time a piece of skin is removed, it is checked for cancer while you wait. This means you will sit in a recovery area near the operating theatre with a dressing on your wound between stages of the operation whilst the specimens are processed. If there is tumour left behind, further removal (another stage) is needed. Most patients require 2-3 stages before reconstruction.

Once the cancer is completely removed we will usually reconstruct the wound on the same day. Occasionally it is better to wait a few more days for further tests or to see another surgeon. If this is necessary it will usually be discussed with you

beforehand. Very occasionally it can become necessary to decide this on the day of surgery due to unforeseen circumstances.

Reconstruction of the wound may involve a skin graft or skin flap. This will be discussed with you.

Mohs micrographic surgery is usually carried out under local anaesthetic (i.e. you are awake). If a general anaesthetic is required for another part of your operation this will be discussed with you.

Mohs micrographic surgery is most often used on basal cell carcinoma (BCC) when:

- the tumour boundaries are difficult to see
- the tumour has regrown or some has been left behind after previous treatment
- the tumour is in an important area such as the nose, ear, lip, or eyelid where it is particularly useful to remove as little skin as possible.

What are the risks?

The risks for this type of surgery are similar to any day case skin surgery procedure. You may get a little bleeding from the wound after the operation which is not serious but can cause a lot of bruising. If bleeding occurs after you have gone home it can usually be stopped by firmly pressing on the wound for 20 minutes.

The wound can sometimes become infected. An infection like this is usually easily treated with antibiotic tablets at home, which you can obtain from your GP or the hospital if necessary.

The tumour sometimes grows around nerves so you may get numbness around the scar. Rarely a nerve to a facial muscle

must be damaged in order to remove the cancer, which would cause temporary or permanent loss of movement of only that area. This is usually predictable so that you can be warned about it before the operation, and is not usually much of a problem to you even if it happens.

The wound will need to be repaired and so you will have a scar, although every effort is made to place this sensitively to hide it as much as possible. The options for repair will be discussed with you.

Finally, the tumour may still regrow years later but this is extremely rare.

Allergic reactions are extremely rare. They can occur to rubber gloves, antiseptic solution, local anaesthetics, antibiotics, and the dressing. Make sure you tell the doctor if you know you are allergic to any of these items.

Before your operation

Things to be aware of:

- **You will need to arrange time off from work or your usual responsibilities for at least 1 week after the surgery.** The amount of time will depend on the complexity of surgery and the type of activities you normally do. You do not want to be heading off on holiday within at least 2 weeks of surgery, which allows sufficient time for the wound to settle down and to have most problems dealt with before you go. Please discuss this with the doctor.
- **You may eat and drink normally before and after your operation, unless told otherwise.**
- **If on Warfarin, please get a blood test (INR) five working days before surgery and find out the result.** Please bring this result with you. The INR should be steady and

between 2 to 2.5 ideally. If not please contact us straight away and ask your GP to alter your dose. If not we may have to cancel your surgery when you arrive.

- **We do not usually ask you to stop aspirin or other ‘blood thinning’ tablets unless you are taking several at once.** This should be discussed with you in clinic. These medicines include aspirin, dipyridamole (Persantin or Asasantin Retard), clopidogrel (Plavix), warfarin, dabigatran (Pradaxa), apixaban (Eliquis), rivaroxaban (Xarelto), and heparin. Usually, the reason for taking the medicine is more important than the low risk of a bad experience from some bleeding or bruising after surgery.
- **Take all other regular medications as normal.**
- **If you are having treatment to your face please remove all make-up before you attend,** not just from the area being treated.
- **If your surgery is in a hair-bearing area, we may clip the hairs nearby to improve access and ease of dressings.** If you are shaving, please do so the night before surgery. There is some evidence that shaving immediately before surgery can increase the chances of wound infection.
- **Please tell the doctor well before your operation if you have any implanted devices** – for example a pacemaker, defibrillator, deep brain stimulator etc. You may need additional pacemaker checks before and after the procedure. If so, we will arrange that and let you know.
- **Smoking harms the healing process.** You can improve your chances of good healing and a better scar by stopping smoking at least a few days before surgery, until at least a few days afterwards. This can be a good opportunity to kick start stopping altogether if you wish, which will help

your general health too. For Stop Smoking advice ring 0117 984 1650 or visit <http://www.bristolstopsmoking.nhs.uk/>.

Preparing for your day case admission - What will happen on the day?

Please come to the Brunel Building at Southmead Hospital. Use the patient self check-in kiosks in the atrium, then report to the waiting area at Gate 24. You will need to allow enough time to reach Gate 24 before 8am. At 8am a nurse will escort you to the theatre area, where you will be given a hospital gown to wear.

If you are late your operation may need to be cancelled. At times parking can be difficult so allow plenty of time. You can travel to the hospital by whatever means you wish, but you will not be fit to drive yourself home or use public transport after the operation.

The lesion may be photographed before and during the procedure with your consent. Local anaesthetic is injected to numb the area. You will be fully awake throughout the procedure.

Occasionally if your wound is large or complex another type of specialist surgeon may come to reconstruct your wound, or might do this at your local hospital if you live far from Bristol. Sometimes you may need to go to the main operating theatres upstairs in the hospital for part of your operation or reconstruction. This will usually have been arranged in advance, and sometimes might involve a general anaesthetic.

Stitches

If you have stitches in your wound we often ask you to come back the following week for them to be removed, or you may

need to arrange to have them removed at your GP surgery.

If a change of dressing is required then either the Practice Nurse at your local GP surgery or District Nurse could usually do this for you. We can help you arrange this on the day of surgery.

Will the area be painful afterwards?

- After the local anaesthetic has worn off (approximately 2 hours), the area will often be somewhat painful and we advise you to take regular Paracetamol for the next couple of days (depending on your usual medications).
- You may experience some bruising and swelling; this should settle down within a few days, but may last longer.
- The surgeon may prescribe a course of antibiotics for you to take after the operation.

How will the wound be repaired?

There are several options depending on the size and position of the wound:

- **Healing naturally** (secondary intention healing)
 - What does this mean? Healing naturally usually takes longer than if closed together (about one to two weeks per cm of wound diameter). It may be a good choice for a small wound that cannot easily be closed together or if you want a simpler quicker operation to avoid a skin graft or skin flap, and reduce your visits to hospital.
 - How do I care for the wound? The wound will require a change of dressing two or three times per week until healed, but this is usually done by your GP practice or district nurse.
 - What will my scar look like? In the right area healing naturally usually ends up looking very good indeed but

this can take many weeks.

- **Direct closure** (sewing the edges together usually in a line)
 - When can this be done? Most Mohs surgery wounds are too complex to use this technique. Otherwise this usually gives the quickest healing, easiest aftercare, and best scar.
- **Skin graft** (using a patch of skin from somewhere else)
 - Where does the skin graft come from? The “donor” site is usually where the skin is loose and thin and it is easy to stitch the edges together (e.g. above your collar bone, neck, or behind your ear).
 - How is the skin graft put on? The graft will usually be stitched in place. Often, a small wad of dressing material is stitched over to hold the graft firmly.
 - What will my skin graft look like? Usually some bruising and crusting in the first few weeks. It can take up to 18 months for a scar to ‘mature’, usually becoming pale, soft, flat and supple. Your doctor will do their best to match the skin graft to the skin removed so that it blends in as much as possible. Sometimes it is almost unnoticeable, but other times it is more difficult to hide and the differences to the surrounding skin are more obvious.
- **Local flap** (moving nearby skin or muscle whilst still attached)
 - What will my local flap look like? The aim of using nearby skin is to provide a better match to the skin removed. Usually this is successful but the appearance varies similar to skin grafts.

Going home

Bleeding

When you go home you will have a bulky dressing covering your wound; this is essential for pressure to stop any bleeding. It is important to leave this on. If you experience bleeding from the wound, apply direct firm pressure to the wound for 20 minutes. This should stop the bleeding. If this does not help contact us on the numbers below, or your GP.

Infection

The usual signs of infection are: pain, swelling, redness, increased temperature of the skin near the wound (or a fever), pus from the wound. Pain, swelling and redness are common in the first three days after surgery but should be improving. If not, the wound may be infected, and you may need antibiotics. If you see these signs seek medical advice from us or your GP.

Other tips

- It is advisable to avoid alcohol for 48 hours after surgery to reduce the risk of bleeding.
- If you are elderly or frail, we recommend having a relative or friend with you overnight after the surgery or at least contactable nearby.
- Avoid bending over, straining, or exerting yourself, and sleep more upright than usual (i.e. with an extra pillow) for a few days to reduce swelling.
- Once healed care for any skin graft with daily moisturiser, and sunscreen when exposed. Grafts remain more sensitive long term.
- Leave the dressing in place and dry for the first 48 hours, then remove it carefully or soak it off, unless you have been told otherwise (e.g. for skin grafts it is left untouched for 7 days and removed by us in hospital).

- Change a dressing if it gets wet or dirty. A wet dressing will promote infection. For skin grafts just change the outer dressing and do not disturb underneath, or contact us.
- Keep the wound clean. Wash it daily after dressings have been removed, but avoid the direct force of the shower on the wound.
- Apply petroleum jelly (e.g. Vaseline) from a new clean pot with a clean cotton bud several times a day.

Contact numbers

If you would like to know any more or have any questions or concerns, please do not hesitate to contact us. The Dermatology nurses can be reached on 0117 414 8717 between about 9am and 5.30pm most days, or Dr Bray's secretary on 0117 414 7621.

Also ring if you have trouble with your wound in the days after surgery. In the evenings up to 10pm please contact the Dermatology Registrar on-call through the BRI switchboard on 0117 923 0000. In the unlikely event of problems overnight you may need advice from your local out-of-hours GP service or walk-in centre, or the emergency department. If so please let us know what has happened as soon as possible.

Cancellation or re-arrangement of an appointment

If you are unable to attend or no longer need your appointment then please telephone 0117 414 7616 and let us know.

Appointments are precious. Enable another patient to take your place. Please give us as much notice as possible.