Mohs Micrographic Surgery

Purpose of this leaflet

- To explain what Mohs surgery is
- To help you decide if Mohs surgery is the right choice
- To help you prepare for the surgery

What is Mohs surgery?

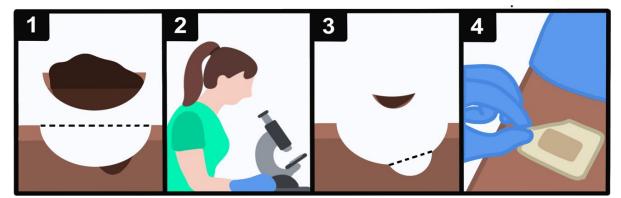
Mohs surgery is used to remove skin cancers. It is named after Dr Frederic Mohs,

who developed the surgery.¹

Mohs surgery lets your surgeon check how deep your skin cancer is, so they can

carefully remove it. This reduces your chance of needing more surgeries later on.

How does Mohs surgery work?



In Mohs surgery, your skin cancer and some surrounding skin are removed (stage 1).

In the lab, your surgeon will look for cancer in the surrounding skin. This helps them judge if any cancer was left behind. Any cancer left behind is removed in the next stage of surgery. (stage 2) At the end of the surgery, your wound will be closed and covered with a dressing.² **Most people are clear of skin cancer after 1-2 stages** of Mohs surgery. Some people may need more stages.^{3,4}

Who performs Mohs surgery?

Normally, it is a dermatologist with special training in Mohs surgery. If needed, other doctors can help repair your wound (e.g plastic surgeons).

When is Mohs surgery used?

Mohs surgery is most often used to treat basal cell carcinomas (BCC) and squamous cell carcinomas (SCC).² You may be recommended Mohs surgery if:

- You have a skin cancer in an area where it is important to save skin (face, hands, feet, nipples or genitals)
- You have a large skin cancer
- Your last surgery didn't remove all of the skin cancer.
- You have a skin cancer that returned after having surgery ^{5,6}

What are the risks of Mohs surgery?

More common risks :

- Bleeding It is normal to lose a small amount of blood in surgery. This is more likely if you take blood thinning tablets or have a blood clotting disorder.
- Pain you might feel some pain after the surgery. This can be managed with rest and pain relief.
- Scarring all skin surgeries can leave a scar. ^{3,5}

Less common risks:

- Infection If your doctor thinks you have an infection, they may give you some antibiotics.
- Nerve damage Nerves in the skin can be damaged during the surgery. This can cause the area to feel numb. In rare cases, nerve damage can cause muscle weakness.
- Cancer can return In very rare cases, a skin cancer can return. ^{3,5}

How does Mohs surgery compare to standard excision?

The other surgery for skin cancer is **'standard excision'.** Both Mohs surgery and standard excision remove your skin cancer and some surrounding skin. However, there are some differences between the two (see below).

Benefits of Mohs ©	Drawbacks of Mohs ⊗
Mohs surgery is more effective than	There may be longer waiting lists for
standard excision ³ *. The margins of	Mohs surgery vs standard excision ⁵
your skin cancer can be checked	
carefully. This important if you have a	
skin cancer with a high chance of	
returning.	
Mohs surgery can remove all of your	Mohs surgery can take longer than
skin cancer in one day. This is	standard excision. 3,5
because your skin cancer is looked at in	
the lab straight away. ²	

Not all skin cancers should be removed using Mohs surgery ^{3,5}	
more easily with standard excision.	

*Mohs surgery is up to 99% effective at treating skin cancers that have not been treated before. It is up to 95% effective at treating skin cancers that have returned. Standard excision is between 80-95% effective ^{3.}

What happens before my surgery?

You may be offered an appointment with your dermatologist before the surgery. This is a chance to discuss:

• Your overall health

 What kind of aftercare you will need

• Your medications

• Any worries you may have

• Your other options

You can find a **checklist to help you prepare** for your surgery at the back of this leaflet.

What happens on the day of my surgery?

You can check in for your surgery at your dermatology reception. You will be taken to theatre and given a gown to wear.

Your surgeon may take a photo of your skin cancer. The photo can help guide your surgeon and can be added to your medical records.

You will be given an injection of **local anaesthetic** to numb the area.

The surgeon will remove a layer of skin and place a dressing on your wound. You will then be taken to a recovery bay to wait.

Your skin sample is looked at in the lab while you wait. You will be taken back to theatre if your surgeon needs to remove more skin. ^{3,5.}

How long does it take?

The lab can take a few hours to look at your skin sample. You may need another stage of surgery if any skin cancer was left behind.

This means that you could be in hospital for up to a day, although this can vary ^{3,5.}

Would I be awake during the surgery?

You will be awake for the surgery. You will be given an injection of local anaesthetic. This numbs the area but *does not* send you to sleep. If you need another stage of surgery, you may be given more local anaesthetic ^{7.}

How will my wound be closed?

Once your surgeon is happy that the skin cancer has been removed, they will close your wound. There are 5 main ways of closing your wound:

1. Heal on its own	2. Stitches	3. Skin graft	4. Skin flap	5. Referral
Your wound will still be covered by a dressing	Your wound might be stitched together	Skin from another place on your body is removed and placed over your wound.	Skin from around your wound is used to cover your wound.	You may be referred to another team to help close your wound (e.g plastic surgery). ⁸

The way they close your wound will depend on:

- Your preferences
- Where your cancer was removed from
- How large your wound is ⁹

Once your wound is closed, it will be covered by a dressing. You may then be sent home.

What happens after my surgery?

You will be told how to manage any pain from the surgery. Paracetamol and rest are helpful until you feel better ^{3.}

You will need someone to drive you to and from your surgery. Driving and public transport are not advised after your surgery ⁵

You may be offered an aftercare appointment to replace your dressing or remove your stitches. Your dermatologist can help you arrange this ^{5.}

Common questions

When can I drive again?

You may need to avoid driving for 1-2 weeks after your surgery. This can vary and is a decision you can make with your dermatologist. The most important thing is that you wait until you feel comfortable behind the wheel. ⁸

When can I go back to work?

You can return to work as soon as you feel comfortable. This is something you can discuss with your dermatologist and workplace. This will depend on your work and your recovery from surgery. ^{5,8}

When can I have a bath / shower?

it is important to keep your dressings dry. You should wait at least 48 hours after your surgery to have a shower. If you have a bath, try and keep your dressing out of the water. This protects your wound while it heals.⁸

Do I need to stop smoking?

Smoking can delay healing after your surgery. It is a good idea to stop smoking for 2 weeks before and after your surgery. ⁸

Who can I talk to if I have any other questions?

If you have any more questions about Mohs surgery, you can ask your

dermatologist. You can book an appointment by calling the dermatology secretary:

(Add contact information)

More information about Mohs surgery can be found here:

British Association of Dermatologists website

https://www.bad.org.uk/pils/mohs-micrographic-surgery/

DermNet

https://dermnetnz.org/topics/mohs-micrographic-surgery

What do I need to remember for my surgery?

Things to remember	Notes	
Food and drink	You can eat and drink on the day of your surgery unless told not to ⁵ . You can bring your own or buy some at your hospital.	
Comfortable clothes	You can bring a change of clothes for after your surgery	
Something to do	You may have some free time on the day of your surgery. Some people bring a book or phone to keep busy.	
A list of your medications and allergies	This helps your surgeon prepare you for the surgery	
Transport to and from your surgery	You are not advised to drive or take public transport after having Mohs surgery. ⁵	

You can use the checklist below to help you prepare for your surgery.

Notes

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Bibliography

- 1. Trost LB, Bailin PL. History of Mohs Surgery. Dermatologic Clinics. 2011 Apr;29(2):135–9.
- Middelburg T. Mohs micrographic surgery | DermNet NZ [Internet]. dermnetnz.org. 2017. Available from: <u>https://dermnetnz.org/topics/mohs-micrographic-surgery</u>
- 3. British Association of Dermatologists [Internet]. Bad.org.uk. 2023. Available from: <u>https://www.bad.org.uk/pils/mohs-micrographic-surgery/</u>
- 4. Sibel Demirel, Affleck A. DS06 Does the content of patient information leaflets reflect real-life practice? A comparison of four patient information leaflets in Mohs micrographic surgery. British Journal of Dermatology [Internet]. 2023 Jun 1 [cited 2023 Dec 27];188(Supplement_4). Available from: https://academic.oup.com/bjd/article/188/Supplement_4/ljad113.245/7206988 https://academic.oup.com/bjd/article/188/Supplement_4/ljad113.245/7206988 https://academic.oup.com/bjd/article/188/Supplement_4/ljad113.245/7206988
- Wilson J, Turner R, Roberts C. Guide to Mohs' Micrographic Surgery Information for patients [Internet]. 2012 Aug [cited 2023 Dec 16]. Available from: <u>https://www.ouh.nhs.uk/patient-guide/leaflets/files/121001mohs.pdf</u>
- Murray C, Sivajohanathan D, Hanna TP, Bradshaw S, Solish N, Moran B, et al. Patient indications for Mohs micrographic surgery: a clinical practice guideline. Current Oncology [Internet]. 2019 Feb 1;26(1):e94–9. Available from: <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6380643/</u>
- Mohs Surgery [Internet]. The Skin Cancer Foundation. [cited 2024 Jan 19]. Available from: <u>https://www.skincancer.org/treatment-resources/mohs-surgery/#:~:text=Mohs%20surgery%20is%20the%20gold</u>
- Atienza M, Murguia A. Dermatology patient information leaflets. Mohs Micrographic Surgery with Local Anaesthesia [Internet]. www.uhd.nhs.uk. 2021 [cited 2024 Jan 27]. Available from: <u>https://www.uhd.nhs.uk/visit/patient-information-leaflets/dermatology</u>
- Reconstruction after Mohs surgery: Understanding the surgical options [Internet]. Chelsea and Westminster Hospital NHS Foundation Trust. [cited 2024 Jan 19]. Available from: <u>https://www.chelwest.nhs.uk/your-visit/patientleaflets/reconstruction-after-mohs-surgery-understanding-the-surgicaloptions#</u>
- 10. SAM Suitability Assessment of Materials for evaluation of health-related information for adults [Internet]. 2008. Available from: https://aspiruslibrary.org/literacy/sam.pdf