

What is MOHS Micrographic Surgery?

In 1937, Dr. Fredrich Mohs, (a later Nobel Prize nominee) developed a technique for the surgical removal of skin cancers. This technique provides patients with the highest chance of cure.

1. **What is skin cancer?** Cancer is a tissue, which grows at an uncontrollable and unpredictable rate. There are three main forms of skin cancer: basal cell carcinoma, squamous cell carcinoma, and malignant melanoma.
2. **Is it dangerous?** The most common types of skin cancer are basal cell carcinoma and squamous cell carcinoma. These types typically do not spread to distant parts of the body. If not completely removed, they can invade and destroy structures in their path of growth.
3. **What causes skin cancer?** Excessive exposure to sunlight is the most important factor associated with the development of skin cancers, which appear most commonly on the face and arms. Other possible factors contributing to the development of skin cancer includes x-rays, trauma, and certain chemicals.
4. **How does skin cancer start?** Skin cancer begins in the upper-most layer of the skin and grows downward and along the surface of the skin. What is apparent to the naked eye on the surface of the skin may only be the "tip of the iceberg".
5. **How is it removed?** Using Mohs Micrographic Surgery, your cancer will be removed as follows: (1) After the area has been numbed, the visible portion of the cancer or the area of the biopsy will be removed with a thin layer of normal appearing tissue around the area; (2) the edge and base of the tissue will be examined under a microscope. If any remaining cancer cells are seen, the surgeon will go back and take more tissue in the area the cancer was seen.
6. **How long does it take?** Removal of skin cancer depends on how wide or deep it may be growing and the flow of the laboratory. After the surgery, a decision is made as to the best way to manage the wound created by the surgery. This will be discussed later. This process may take the whole day.
7. **How effective is Mohs' Micrographic Surgery?** Using the Mohs technique, the percentage of success can be as high as 97% to 99% for basal cell carcinoma and almost as high for squamous cell carcinomas. There is no other treatment with this success rate.
8. **What are the advantages of Mohs' Micrographic Surgery?** Besides the high cure rate, this technique allows the physician to pinpoint areas of cancer and selectively remove those areas. Thus, the surgeon tries to minimize the amount of tissue removed while still removing the cancer.
9. **Will the surgery leave a scar?** Yes. However we make an effort to obtain an optimal cosmetic result for the patient and may work in conjunction with another reconstructive surgeon if necessary.

10. **How much does the surgery cost will my insurance pay?** Mohs surgery is outpatient surgery. Medicare accepts almost all out total charge and will reimburse you 80% of their accepted charge. If you have a second insurance policy or co-insurance this should pay the major portion of the remaining bill. For those who do not have Medicare, the amount that your policy will pay toward the cost of the surgery varies with the type of policy you have. If you have any questions concerning this you can call your insurance company. We will be glad to help file your insurance claims; however, the patient will be responsible for any balance not covered by insurance.
11. **How should I prepare myself for Mohs' Micrographic Surgery?** Eat a good breakfast. If you are taking any medications, take them as usual unless we direct otherwise. If you take warfarin ("coumadin") please notify our office at (801) 965-2799. We will ask you to have your warfarin level ("INR" or "Protime") checked shortly before surgery **Do not discontinue any blood thinners prescribed by your physician.** If you take aspirin for preventative reason only (you have never had a heart attack, blood clot or stroke), please discontinue the aspirin 2 weeks before surgery. Also discontinue supplements that can thin blood: Vitamin E, Fish Oil, Feverfew, Gingko Biloba, Ginseng, Ginger, or Garlic. Moreover, please do not drink any alcohol for two days before or after surgery.
12. **How long does the surgery take?** Each step of the surgical procedure takes about 10-30 minutes. Following surgery, it might take over one hour for the slides to be prepared for microscopic examination. Several surgical stages and microscopic examinations may be required. We recommend you bring a book or something else to keep you occupied while waiting. You may want to bring food or many in case you are here past lunch and would like to buy food during one of the waiting periods.
13. **Should someone come with me on the day of surgery?** Yes. Please have someone accompany you or plan to drop you off and pick you up. We ask that you limit the number of people accompanying you to one or two people because of limited space in our waiting room. No small children please.
14. **Is there pain associated with the surgery?** A local anesthetic (typically lidocaine) will be used, to numb the skin around the cancer. Please inform us if you experience anything more than slight discomfort. It is understandable to be nervous about this procedure and we are happy to prescribe a medication that can be taken the night before and the day of surgery. This medicine can relax you but might make you drowsy so you definitely need a driver if you choose to take the medicine. Please inform us prior to surgery if you are interested in having us order you some medication.
15. **What happens the day of surgery?** The area will be anesthetized and then Dr. Hinckley will remove the area of the cancer as previously described. It usually takes 15 to 30 minutes to anesthetize the involved area and to remove the tissue. The removed tissue will be sent to the laboratory for processing. It will take 1 to 2 hours to prepare the tissue for microscopic examination and examine the slide. While you are waiting, you are free to leave the area for refreshments, just alert us first. If the tissue removed still contains cancer cells, the procedure will be repeated. You will be photographed before treatment as well as after surgery and again after healing. These photographs become part of your medical record and may be used for teaching purposes.
16. **What happens after the cancer has been removed?** When we have determined that the skin cancer has been completely removed, a decision is made on what to do with the wound created by the surgery. We will involve you with the decision-making. Usually we

will close the wound with stitches but sometimes we may choose to let the wound heal by itself.

17. **What happens during the wound healing process?** You may experience a sensation of tightness as the wound heals, but this is normal. Frequently, tumors involve nerves and it may take up to one year or even two, before feeling returns to normal or near normal. Sometimes the area stays numb permanently. The new skin that grows over the wound contains many more blood vessels than the skin that was removed. This results in a red scar and the area may be sensitive to temperature changes. This sensitivity improves with time and the redness gradually fades. If you are having discomfort, avoid extremes of temperatures. Patients frequently experience itching after their wound has healed because the new skin that covers the wound does not contain, as many oil glands as previously existed. Plain petroleum jelly ("Vaseline") or other skin moisturizer will help relieve the itching. Some patients may have a tendency to form large, thick scars. If this appears to be happening, you can return to the clinic and we will put some medicine in the scar to try to stop the growth.
18. **How often must I return for a follow up?** Our practice is to have patients return to their referring physician for visits every 6-12 months, depending on what the referring physician determines. Patients initially seen in our office will return here. Experience has shown that if there is a recurrence of skin cancer, it usually will be within the first year following surgery. Once you develop a skin cancer, there is a possibility that you will develop others in the years ahead. We recommend that your dermatologist see you at least once a year for the rest of your life. If you notice any suspicious areas on your skin, see your physician to have it evaluated.
19. **If my skin cancer has been treated several times will it ever be cured?** One reason for Mohs surgery is that other forms of treatment have failed. Because Mohs' Surgery uses microscopic control to search out the roots of the cancer, it cures almost all patients—even those in whom skin cancer has persisted in spite of several other treatments.
20. **Later on must I avoid the sun?** No. Provide yourself with adequate protection, avoid burning, and use discretion. Each morning, apply a liberal amount of a lotion containing sunscreen with a SPF of 15-30 or greater to exposed areas of face, neck, scalp, and ears. It is best to apply the sunscreen about 20 minutes before going outside. Use a SPF of 50 or higher if you plan to be outside for longer periods of time. Reapply sunscreen every few hours and after swimming or exercising. Even more effective than sunscreens are a wide-brimmed hat for your scalp and ears and other protective clothing for other areas of the body.

Thank you for entrusting us with your skin care needs!

To watch a video of the Mohs procedure past the following address into your Internet browser: http://www.mohscollege.org/about/video_patient_education.php

Then click on the link that says: "View broadband version"

Michael R. Hinckley, MD

MOHS SURGERY CONSENT

As with any surgery, Mohs Micrographic Surgery is associated with possible risks and complications. Pain, infection, bleeding and multiple other complications may occur during or after surgery. Minor, serious, or life-threatening reactions can occur with the use of anesthetics or with medicines given before, during or after surgery. Nerves controlling muscle movement sensation, or other functions may be damaged. This damage may be permanent. When reconstructing surgical defects, a number of complications may occur including but not limited to infection, bleeding, scarring, significant deformity, and other potential risks. Reconstruction of the wound defect may require more than one surgical procedure.

I have read the above information and have discussed any questions or concerns with Dr. Michael Hinckley. I have been informed of alternative treatments and the potential complications of the procedure. I understand that no guarantee is made regarding the outcome of the surgery and I ask that the surgery be performed.

I authorize and consent to the taking of photographs before, during and after surgery, and at the follow up visits. I understand that the photographs are primarily for medical documentation of my surgery. They may also be used for medical education, lectures, and publication in medical journals. I understand that no identifiable photograph of me will be published without my consent.

Signature: _____

Printed Name: _____

Date: _____ Patient ID#: _____

Witness Signature: _____