



MOHS MICROGRAPHIC SURGERY

The Treatment of Skin Cancer

F FOREFRONT
DERMATOLOGY®

What is Mohs Micrographic Surgery?

Mohs Micrographic surgery is a specialized, highly effective technique used to treat skin cancer. The goal of Mohs surgery is to remove as much of the skin cancer as possible, while doing minimal damage to surrounding healthy tissue.

Mohs surgery differs from other skin cancer treatments in that it permits the immediate and complete microscopic examination of the removed cancerous tissue, so that all "roots" and extensions of the cancer can be eliminated. Due to the methodical manner in which tissue is removed and examined, Mohs surgery is recognized as the skin cancer treatment with the highest cure rate.

How effective is Mohs surgery?

Mohs surgery is the most advanced, precise method of removing skin cancer. It has a cure rate of up to 99%, as compared to a cure rate of 85% to 92% for standard skin cancer surgery.

The Mohs surgeons at Forefront Dermatology take pride in achieving the best outcome possible for each individual patient. From the initial consultation to the final post-operative visit, your surgeon will make sure that your experience is a successful one.

Risks and Potential Complications

Post-surgical pain & discomfort

Most patients do not complain of significant pain. Typically, only Tylenol is required for relief. However, stronger pain medications are available and will be prescribed for you when leaving the office if necessary.

Even though Mohs surgery is an improvement to standard skin cancer surgery, rare complications are possible, as with any surgical procedure.

Potential complications associated with Mohs surgery include:

- Bruising and swelling around the wound, especially if surgery is performed near the eye area.
- Bleeding, likely to occur in the first 48 hours. Most bleeding can be controlled with pressure and by following your post-op instructions. However, severe bleeding may require you to go to your local emergency room for treatment.
- Infection, uncommon, but can occur when exposed to harmful bacteria. Our surgeons use sterile technique to minimize this exposure, and as a result the procedure has an infection rate of less than 5%.



Other complications that may result from Mohs surgery are uncommon but may include:

- Temporary or permanent numbness surrounding the surgical area, if small nerve endings are cut.
- Temporary or permanent weakness of the surgical area, if a muscle nerve is severed by extensive surgery or the removal of a large tumor.

Will I have any limitations after surgery?

Depending on the size and location of the surgery, most patients are able to return to normal activity within a few days. We advise you take it easy the first few days, limiting any strenuous activities or exercise. You will know how you are feeling and can adjust your activity level accordingly.

Patient Preparation For Surgery

The following are pre-appointment tips to help ensure a successful Mohs experience:



The best preparation for Mohs surgery is a good night's sleep.

The morning of your surgery, follow your normal routine. Bathe or shower, as your wound and bandages must remain dry for the first 24-48 hours, eat breakfast and take any prescription medications. If you need any additional medications throughout the day, please bring them with you.



Dress comfortably and refrain from wearing perfume/cologne. Wear loose fitting, comfortable clothing; a button down shirt may be your best option, as to not disturb the bandages. You may want to bring a sweater or jacket, so you can easily adapt if the room is warm or cold. Avoid makeup if the surgery is on your face.



Expect some waiting time during your Mohs surgery, this procedure can sometimes last several hours. Plan ahead by bringing a light snack to tide you over and a book, magazine or other activity to help you pass the time.



Let your surgeon know of any medications or supplements you're currently taking, including any blood-thinning medications. Some supplements may affect your chances of bleeding after surgery. Continue taking any prescription medications as instructed unless your surgeon tells you otherwise.



If you normally take antibiotics prior to going to the dentist, because you have an artificial joint less than two years old, or have had a heart valve replacement, you may need to take antibiotics before surgery. If you have an artificial joint or heart valve and were not given a prescription for antibiotics, please call our office.



Bring a friend to your appointment.

Having someone come to your appointment with you is a good idea, but not necessary. Your companion may come in the room and keep you company during the waiting periods, but will have to return to the waiting room during the procedure itself. If you do not have someone with you, it may be advisable to arrange for someone to drive you home following surgery, if needed.

The Mohs Surgical Procedure

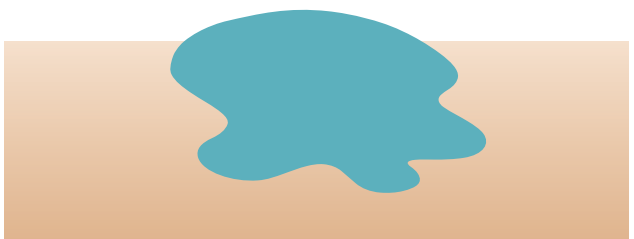
Mohs surgery is done on an outpatient basis in a procedure room with a nearby laboratory that allows the surgeon to examine the tissue after it is removed.

Your Mohs team will consist of the Mohs surgeon, an assistant and a histotechnologist. The Mohs surgeon will be in to greet you and answer any questions before your surgery begins. Multiple measurements and photos of the treatment site will be taken throughout the day. With this in mind, most procedures can be completed in three or fewer stages, requiring less than four hours. However, it is not possible to predict how lengthy the procedure will be, as the extent of the skin cancer “roots” cannot be estimated in advance.

The Mohs surgical procedures is illustrated in the following diagrams:

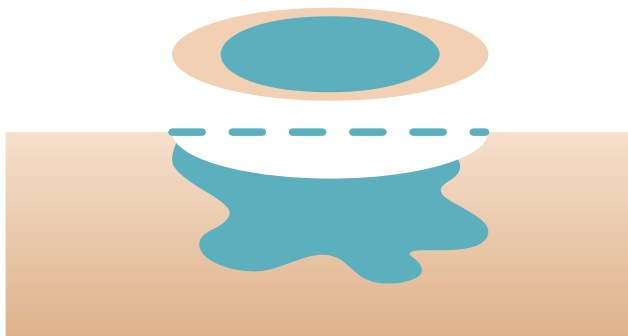
Step 1

To prepare you for surgery, the area to be treated is cleansed and injected with a local anesthetic. The anesthetic numbs the skin, so you won't feel any discomfort during the procedure.



Step 2

Once, the anesthetic has taken effect, the surgeon uses a scalpel to remove the visible cancer, along with a thin layer of additional tissue. This procedure takes only a few minutes.



Step 3

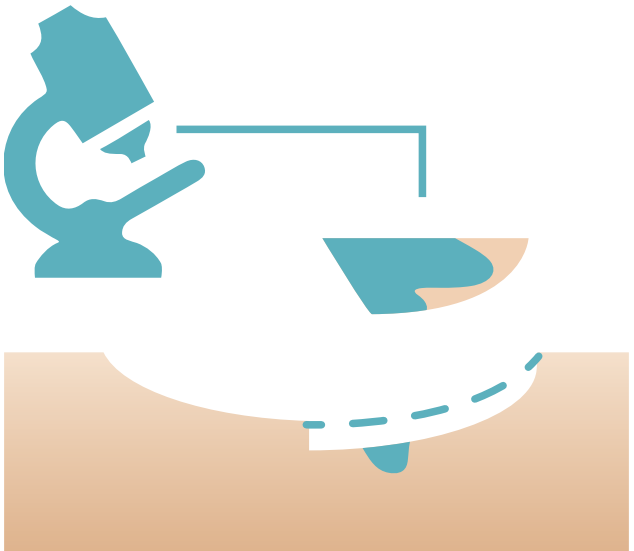
The tissue, once removed, is then divided into sections. The surgeon then color codes each of these sections with dyes and makes reference marks on the skin to show the source of these sections. A Mohs map of the site is then drawn.



The Mohs Surgical Procedure Continued...

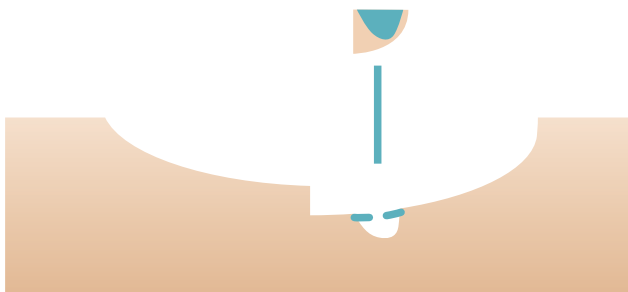
Step 4

The surgeon then brings this tissue to the laboratory for analysis. This portion of the procedure typically takes the longest amount of time, often requiring one hour or more to complete. The tissue is frozen on a cryostat, and the technician removes very thin slices from the entire edge and undersurface. These slices are then placed on slides and stained for examination under the microscope.



Step 5

The Mohs surgeon carefully examines the entire undersurface and complete edge of the specimen. All microscopic "roots" of the cancer are precisely identified and pinpointed on the Mohs map. Upon microscopic examination, if the residual cancer is found, the Mohs surgeon utilizes the Mohs map to direct the removal of additional tissue. Additional tissue is removed only where cancer is present.



Step 6

This process is repeated as many times as necessary to locate and remove any remaining cancerous areas within the tissue specimen. Local anesthetic can be re-administered as necessary.



Step 7

The removal process stops when there is no longer any evidence of cancer remaining in the surgical site. Because Mohs surgery removes only tissue containing cancer, it ensures that the healthy tissue is kept intact. Bleeding will be stopped with an electric cautery. You will be able to hear a buzzing noise and notice a distinct smell as it cauterizes the blood vessels.

After all the cancer has been removed, you and your surgeon can decide on how to repair the wound. If the surgical area is extensive, your surgeon may suggest reconstructive surgery.

Options For Post-Surgical Reconstruction

Your Mohs surgeon has received extensive and advanced training in facial reconstructive surgery and will consider all options to ensure that the optimal cosmetic result and healing will be achieved.

When your Mohs surgery is complete, there will be a defect or open wound in the area that the skin cancer occupied. In the vast majority of cases, your Mohs surgeon will perform your reconstruction on the same day as the skin cancer removal. Extremely advanced, time consuming reconstructions may be scheduled for another day. You will be given written instructions for any wound care needed at home.



Your surgeon will discuss the following reconstruction options:

- ① Allow the wound to heal naturally (which may produce the best cosmetic result).
- ② Linear wound repair.
- ③ **Shift skin from an adjacent area (skin flap) to cover the wound.**
The skin alongside the surgical defect is partially cut free, and then rotated or moved forward to cover the surgical areas. Stitches are then placed to hold the flap in its new position. This provides immediate coverage for the wound and excellent wound healing.
- ④ **Use a skin graft from another part of the body to cover the wound.**
Skin from the side of the neck, behind the ear, or over the collarbone may be cut free, positioned over the wound, and then sewn into place. The original site of the graft is then closed with stitches or allowed to heal on its own.
- ⑤ **Referral to the original referring physician for wound repair.**
If another surgeon referred you to Forefront Dermatology to receive Mohs surgery, you may be sent back to that surgeon for reconstruction.

What to Expect

One of the advantages of Mohs surgery is that you know your results right away and you usually don't leave your appointment until all of the skin cancer has been removed. You may have a follow-up visit with your surgeon or referring doctor to monitor your recovery to make sure your wound is healing properly.

How to care for your wound

A pressure bandage will be placed on the wound and will need to stay in place for 24-48 hours. At the time of surgery you will be instructed on how and when to change your bandage and when to return to have your sutures removed.

Will I have a scar?

Mohs surgery provides the best chance for optimal wound healing with minimal scarring. There will always be a scar, although every attempt will be made to minimize and hide it when possible. The extent and appearance of scarring depends on a number of factors, including healing, size and location of the cancer.

Follow-up exams

Plan to undergo regular follow-up visits with your dermatologist to spot any new skin cancer. Expect to have skin exams at least once or twice a year, and more often if your cancer was aggressive or is more likely to recur.



**We look forward to making
your office visit as pleasant
and comfortable as possible.**

We are committed to providing the most effective solutions in terms of recovery and cosmetic outcome. We offer the latest innovations in skin cancer detection and treatment in a friendly, professional office where your needs come first. Please remember this information only provides a general guide to skin cancer and Mohs surgery.

*Our staff is here to help, so please
feel free to contact our office with
any questions or concerns.*

Visit our website at:
ForefrontDermatology.com

