

MOHS SURGERY

This information is intended to explain Mohs micrographic surgery to you. It is not, however, intended to be a substitute for a consultation session with your dermatologist or Mohs surgeon, and you should feel free to call with any questions you may have at 717-531-1555. We can schedule a consultation appointment prior to your surgery if you prefer.

WHAT IS MOHS MICROGRAPHIC SURGERY?

Mohs micrographic surgery was developed by Dr. Frederick Mohs in the 1940's as a precise method of treating certain skin cancers. It combines surgical removal of the cancer with immediate microscopic examination of the removed tissue, in a way to best assure that the tumor has been completely removed. All margins are carefully examined.

Unlike the other methods of treatment, Mohs surgery does not rely only on what the physician can see with his/her eyes. Using the microscope to check the margins of the skin that has been removed allows the surgeon to trace out the entire tumor and remove only the diseased tissue. It has the highest cure rate of all methods of treating skin cancer, and also allows us to save as much normal, healthy tissue as possible.

HOW EFFECTIVE IS MOHS SURGERY?

Using the Mohs surgical technique, the percentage of success is very high, often 96% to 99%, even if other forms of treatment have failed.

WHAT TO DO BEFORE SURGERY?

YOU DO NOT NEED TO STOP taking your **ASPIRIN, COUMADIN or **PLAVIX**, prior to the Mohs procedure. If your doctor has prescribed these medicines, **CONTINUE THEM AS PRESCRIBED.****

One day prior to surgery we ask that you avoid **alcohol**, as alcohol may also increase bleeding.

Vitamin E supplements may also increase bleeding during and after surgery. Many patients take alternative medicines or supplements such as garlic, ginkgo, biloba, goldenseal, licorice, bilberry, and red clover. These medicines also can lead to excessive bleeding during and after surgery. **Please discontinue Vitamin E supplements and these other supplements prior to surgery.**

Please let us know if you have an **ARTIFICIAL HEART VALVE** or a history of **ENDOCARDITIS** at least one day before your surgery. Please call 717-531-1555.

On the morning of surgery **YOU MAY EAT A REGULAR BREAKFAST.** **Please take all medications that you normally take.** If you wear glasses for driving purposes, you may want to bring a companion in case you leave here with a bandage that would affect your driving abilities. You may also want to bring a driver because you may be very tired after the surgery.

On the morning of surgery, avoid wearing any makeup or moisturizers.

The Mohs procedure can last SEVERAL HOURS and may extend into the afternoon. You and your companion may want to bring along a snack or lunch. Coffee and juice are available in the waiting room. A small cafeteria is also nearby, for soup, sandwiches and other items.

WHAT DOES THE SURGERY INVOLVE?

The Mohs team taking care of you will consist of the Mohs surgeon, a nurse, and a technician who will process the tissue. A dermatology resident may also be involved. Mohs surgery is an outpatient surgical procedure, performed under **local anesthesia**. The surgery is performed in steps, or stages. The first part of each stage is the actual surgery and normally takes 15 to 20 minutes. The other part of each stage involves the preparation of the tissue specimens and the surgeon's examination of the tissue under the microscope. This normally takes 30 minutes to one hour. The number of stages required depends upon the size and depth of the cancer.

The actual procedure is as follows: You will be brought to the surgery room where blood pressure, pulse, and history are checked, and photographs are taken. The area is cleaned with a disinfecting solution and a local anesthetic (Lidocaine, Xylocaine) is injected to numb the area. The local anesthetic is the only part of the surgery that should feel uncomfortable. You will notice a burning or stinging sensation that will last only a matter of seconds. Once the area is numb, the obvious part of the tumor is removed. A thin layer of tissue is then excised. The small amount of bleeding is stopped with an electrical device, a dressing is applied and you are free to go to the waiting room. The removed skin tissue is divided into small pieces and marked carefully with colored dyes to distinguish top from bottom and left from right. By doing this, we are able to pinpoint the exact location of any remaining tumor detected during the microscopic examination.

Mohs surgery usually involves several stages and trips back and forth from the waiting room. Do not expect that it will take just one stage to completely remove your tumor. After the tissue is examined and the remaining tumor is located, you are returned to the surgical area, additional anesthetic is injected, and a second stage of Mohs surgery is performed. Tissue is removed only where tumor remains and healthy tissue is left alone.

The average tumor requires two to four stages for removal. Do not be discouraged if your cancer is not removed in one stage. We are tracing the extent of the tumor very carefully, thereby removing as little normal tissue as possible.

WHAT HAPPENS AFTER THE CANCER IS REMOVED?

After the cancer has been removed, there will be an open wound that remains. At this point, there are several alternatives, depending upon the size and location of this wound. Most often, the wound will be repaired by the Mohs Surgeon on the day of surgery. Sutures are usually required to repair the wound. Occasionally a skin graft or nearby skin flap is required for repair. Sometimes, allowing the wound to heal by itself is the treatment of choice and may produce a result equal to or better than suturing. If the defect is very extensive, another specialist may be consulted for the needed reconstruction. All of these alternatives will be discussed with you after the cancer is removed.

WHAT CAN I EXPECT AFTER SURGERY?

After the local anesthetic wears off, there is usually minimal pain. Tylenol (acetaminophen) is frequently enough to relieve any discomfort. As aspirin and aspirin products (Excedrin, Anacin, etc.)

may increase the possibility of bleeding, these products should be avoided. Occasionally, a stronger medication for pain will need to be prescribed.

Alcohol should be avoided following surgery as it dilates blood vessels and could lead to bleeding problems in the wound. We also recommend that heavy lifting and strenuous exercise be avoided. ***After surgery, go home, relax, and take it easy!***

A certain amount of redness and swelling is completely normal in the area of the surgical wound. This gradually improves over several days to a week. Along with this, there may be some bruising. This is usually a little more long lasting but goes away in one to two weeks. ***If the redness, swelling or bruising increases or does not improve, you should contact our office.***

Infection is always a risk of surgery, but fortunately it is an infrequent problem after skin surgery. Infection usually does not show up right after surgery but rather several days later. As mentioned above, redness and swelling occur normally after surgery and become less and less apparent with each day. ***If after several days, redness, swelling and discomfort begin to increase in severity and/or pus begins to come from the wound, then this may represent an infection and you should call the office (531-1555 or 531-6820). During the evenings or weekends, please call (717) 531-8521 and ask the operator to page the resident on call. An antibiotic will be prescribed if needed, and we may need to see you in our clinic.***

Bleeding is rarely a problem after skin surgery, but since some patients come from far away, it is important to be prepared in the unlikely event that bleeding should occur. If bleeding occurs, it is usually in the first 24 hours after surgery. ***Apply moderate pressure continuously to the dressing or directly to the wound with a clean gauze or washcloth for 15 minutes; if there is still active bleeding, remove the bandage if in place and apply pressure directly to the bleeding site for a second period of 15 minutes. If the bleeding has not stopped, either call the clinic or the dermatologist-on-call.***

After any form of surgery, there will be a **scar**. This is of particular concern, of course, when the surgery involves the face, where most skin cancers form. We make every attempt to give you the nicest scar possible and most people are very satisfied with the ultimate cosmetic result after skin cancer surgery. It is important to be patient, allowing the scar tissue to naturally remodel. This often takes several months to achieve the final result.

Much of the Mohs day is spent waiting. For that reason we recommend you bring along work, a good book...or at least a good conversationalist. It is nice to have a companion along for the day but we ask that you limit the number to 1 person, as our waiting room is rather small. We have music available to play during your procedure, but if you prefer please feel free to bring your own iPod. Most patients find the music to be very relaxing. We know waiting can be difficult and appreciate you being a “patient” patient.

We look forward to working with you. You should always feel free to call us with any questions or problems.

For more information please visit our website: www.pennstatehershey.org/web/dermatology/home and click on Health Information Library.

If you have any questions or concerns, please contact your provider at the location you were treated.
Hershey Medical Center, UPC I, Suite 100 (717) 531-6820 or Nyes Road, (717) 657-4045.
Penn State Hershey Medical Group, Colonnade Building (814)272-4445.

