

## Dr. García-Zuazaga's Professional Training

- Fellowship: Harvard Medical School, Mohs Micrographic Surgery and Cutaneous Oncology, Laser and Aesthetic Dermatology
- Residency: University Hospitals/Case Western Reserve University
- MBA Weatherhead School of Management, Case Western Reserve University
- United States Marine Corps, Senior Flight Surgeon
- Medical School: Pennsylvania State University
- Masters of Science in Biomedical Engineering



### Dr. García-Zuazaga

Experience counts when choosing a Mohs/skin cancer surgeon. Dr. García-Zuazaga has performed over 15,000 skin cancer procedures throughout his career.

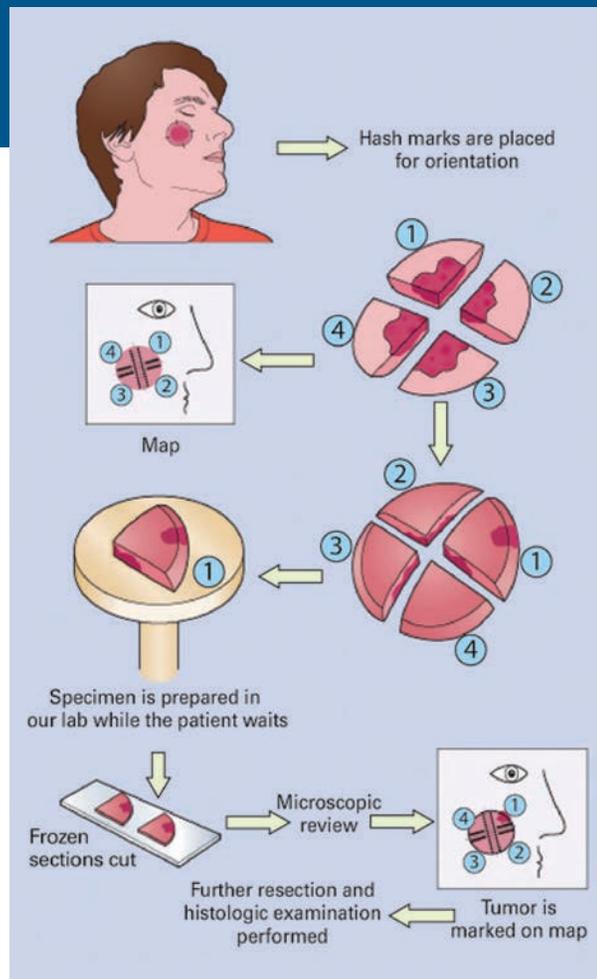


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## Mohs Procedure



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## Mohs Micrographic Surgery

**Numbness or nerve damage:** Most scars are numb because small sensory nerves have been cut during the procedure. Sometimes adjacent skin is also numb following a repair. This sensation usually goes away over time. Rarely is a tumor located around nerves that control movement. In such cases, muscle movement may be impaired as a result of nerve damage caused by the removal of the tumor.

**Recurrence:** Tumors recur in some patients even after Mohs surgery has been carefully performed. A recurrence will usually look like a small bump or a red scaly area on or close to the surgical site or scar. Recurrences are not usually apparent for one to three years. Recurrences are almost always again treated with Mohs surgery because of the technique's high cure rates.

### How much does the surgery cost and will my insurance pay?

Mohs surgery is considered a medical service, not a cosmetic service. Currently, most insurance plans cover the procedure under their provided benefits, unless you have an out of pocket deductible first. Medicare covers approximately 80% of charges. Your second insurance policy usually covers the remaining portion of the procedure. For those patients that have commercial insurance and who are not on enrolled on Medicare, the amount that your policy will pay towards the cost of this surgery varies with type of policy. With many changes in insurance plans, it is always advisable to contact your insurance carrier prior to scheduling surgery and confirm your eligibility and benefits.





## What is Mohs surgery?

Mohs Surgery is a specialized technique for removing certain types of skin cancers. It is named after Dr. Frederic Mohs, who invented the procedure in the 1930's. This technique provides patients with the highest chance of cure for skin cancers, higher than standard excision, radiation or any topical chemotherapy medications. Today, this state-of-the-art method has been modified and refined to become the gold standard of treatment for many skin cancers of the head and neck. During this procedure, the healthy skin is preserved facilitating a more elegant reconstruction resulting in a smaller scar. When performed by a fellowship trained Mohs surgeon, the cure rates are 98% for most common skin cancers.

## Who performs Mohs surgery?

Electing Mohs Surgery means you are choosing to be treated by a skin cancer expert. Mohs surgery is performed by a specially trained team that includes a dermatologic surgeon, several surgical assistants and a laboratory technician who prepares the tissue for microscopic examination. Our experienced office staff are also integral members of the team and can answer a lot of your questions regarding how to prepare for the procedure. You will meet the entire team at the time of your consultation or surgery.

## Why should I have my skin cancer treated by a Mohs surgeon?

A fellowship trained Mohs surgeon has obtained additional training in skin cancer surgery, pathology, facial and complex regional reconstructive surgery. It is important for you to choose a Mohs surgeon that has done a fellowship approved by the American College of Mohs Surgery. Dr. García-Zuazaga performed his fellowship at Harvard Medical School and served as Director of Mohs Surgery at University Hospitals Westlake Health Center for over 3 years. He has performed thousands of Mohs surgeries and reconstructions. He is nationally known, has published in a variety of medical journals, and is often invited as guest speaker at national meetings to talk about skin cancer treatment and Mohs surgery.

## What types of skin cancer are treated with Mohs surgery?

Mohs surgery is used for common skin cancers, such as basal cell carcinoma and squamous cell carcinoma. In addition, other more rare tumors are treated with Mohs surgery. These include sebaceous carcinoma, atypical fibroxanthoma (AFX), macrocystic adnexal carcinoma (MAC), malignant fibrohistiocytoma (MFH), Dermatofibrosarcoma Protuberans (DFSP), and other rare malignancies. A fellowship trained Mohs surgeon is trained in recognizing these tumors on the microscope and can remove the "roots" giving you the highest cure rate for these cancers.

## How long does Mohs surgery take?

Many of the skin cancers removed by the Mohs Surgery technique are large or in challenging areas such as the ear, nose, face or neck and require multiple rounds to clear the tumor. As a result, the surgery can sometimes involve most of your day. As a general rule we expect you to be free on the day of surgery since in rare cases, the surgery can be longer than anticipated. Most people that have the surgery will be out of the office by noon.

## How is Mohs surgery performed?

Mohs surgery is performed on an outpatient basis. First, local anesthesia is used to numb the tumor site. Then, as much of the visible tumor as possible is taken off by scraping with a special instrument. This delineates the clinical margins of the tumor. A thin layer of skin at the tumor site is then removed and examined under a microscope. If evidence of tumor cells is found at the edges of the sample, the surgeon will remove and examine another skin sample. These steps will be repeated until no tumor can be detected under the microscope. Depending on the extent of the tumor, the process may be repeated several times. Most patients clear in 2-3 layers.

## Which patients are candidates for Mohs surgery?

- Patients with biopsy-proven skin cancers and patients whose cancer is located on the head, neck, hand, feet, genitalia.
- Patients with large tumors (greater than 2 cm) on the trunk, arms and legs.
- Patients with recurrent cancer at any site.
- Organ transplant recipients or any patient taking immunosuppressive medications.

## How long does Mohs surgery take?

We cannot know ahead of time the extent of your tumor. It is difficult, therefore, to discuss the repair of the surgical site until the procedure is completed. However, there are several ways of repairing the skin. Small or superficial wounds may be left to heal by themselves. Larger wounds may need to be stitched closed. The largest wounds may require a flap or a full thickness skin graft. Both techniques involve moving healthy skin from elsewhere on your body to repair the surgical wound. When the tumor has been completely removed, and we know the size and shape of the resulting wound, Dr. García-Zuazaga will be better able to discuss the best option for repair. Most patients have their wound repaired on the same day the Mohs procedure is performed. On occasion, we collaborate with plastic surgeons for surgical repair.

## How should I prepare myself for Mohs surgery?

You can have your regular breakfast on the day of surgery (there is no need for fasting for this surgery). We would prefer if you abstain from alcohol the day prior to surgery and for a few days after the surgery. Alcohol can cause the blood vessels to dilate and increase your risk of bleeding. If you are taking any medications, take them as usual unless we direct you otherwise. It is a good idea to bring a book or magazine and a lunch with you on the day of surgery. You do not have to bring someone to drive you home however, you may wish to have someone join you for the company while you wait.

## Will I have much pain after the procedure?

There is usually not much pain or discomfort after surgery. In fact, most people return to their normal daily activities the next day, although the site is usually bandaged for a few days. We recommend that you have extra strength Tylenol available. Please avoid taking Advil, Motrin or Aleve for pain after the procedure since these medications may thin your blood. On certain occasions, your doctor may prescribe a prescription pain medication after the procedure.

## Will I need antibiotics after the surgery?

Infection occurs rarely with Mohs surgery (less than 2% of cases). Most people that have Mohs surgery do not need any antibiotics. However, if the reconstruction is complex, you may need to take an antibiotic for a few days. Dr. García-Zuazaga may give you a prescription for antibiotics if needed. We always check to make sure the antibiotic does not interfere with your regular medications.

## Are there any risks or complications with Mohs surgery?

As with any surgical procedure, there are a few rare complications that can occur. We take the utmost care to prevent these during the procedure.

**Bleeding:** some bleeding during surgery is expected. It is uncommon, however, for bleeding to occur after surgery. If you take blood thinners like aspirin, coumadin or plavix, we ask that you continue these medications, or talk to the prescribing doctor to see if its appropriate to stop these medications. Those patients on blood thinners, are at higher risk of bleeding after the procedure.

**Allergic reaction:** Allergic reaction is very rare. It can occur due to local anesthesia or the adhesive of the bandage.

**Scarring:** A scar will always result from Mohs surgery. Scars usually mature over several months and become cosmetically acceptable. Some scars will be pink and bumpy for a few months. Scars that do not mature well can often be cosmetically altered. If surgery is needed to improve the appearance of a scar, the procedure is usually performed 6-12 month after the original surgery. (See back.)