

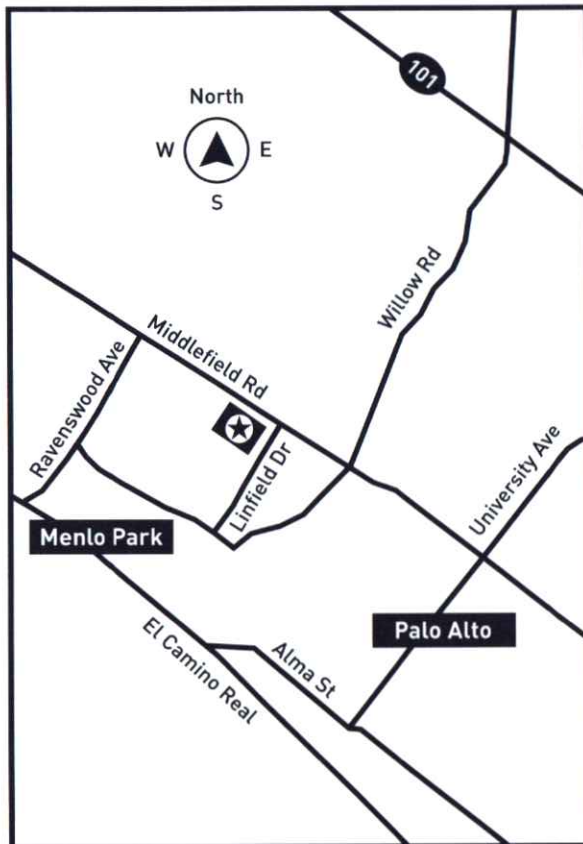


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Skin Cancer and Mohs Micrographic Surgery



Peninsula Dermatologic Surgery

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SKIN CANCER



HOW COMMON IS SKIN CANCER?

Skin cancer is the most common form of cancer in humans. Over 3 million cases of skin cancer will be diagnosed this year in the United States. One in five Americans will develop skin cancer in their lifetime.

SKIN CANCER TREATMENT

The treatment of skin cancer has four goals:

- 1) completely remove the cancer,
- 2) preserve normal skin,
- 3) preserve function, and
- 4) provide an optimal cosmetic result.

To be cured, skin cancers must be destroyed or removed. They may be treated by cryotherapy (freezing), curettage and electrodesiccation (scraping and burning with an electric needle), excision (surgical removal), radiation therapy or Mohs micrographic surgery. Mohs provides the highest cure rate while removing the least amount of normal skin. For primary, untreated skin cancers, the non-Mohs surgery methods may offer a cure rate of 90-95%. For recurrent, previously treated skin cancers, these non-Mohs surgery methods may offer cure rates of only 60-80%.

MOHS MICROGRAPHIC SURGERY



The process of Mohs micrographic surgery was created by Dr. Fred Mohs when he was a medical student in the 1930's. He developed a meticulous and precise surgical technique used for removing skin cancers. This procedure has gained wide acceptance for skin cancer treatment in the last twenty years. The name micrographic comes from micro, indicating the use of a microscope, and graphic, indicating that a detailed map or drawing of the tumor is made during the treatment.

The Mohs procedure requires the following three steps:

- 1) Remove the visible tumor to determine the initial tumor borders.
- 2) Remove a thin disk of skin around and underneath these borders.
- 3) Examine the removed skin under a microscope and draw a map of where any skin cancer remains.

If cancer is still present, we will pinpoint the location and remove only that skin where the cancer remains. These steps are repeated in cycles until the tumor is totally removed. In this way, a careful, accurate and complete removal of the skin cancer is achieved with minimal removal of normal surrounding skin.

ADVANTAGES OF MOHS SURGERY



The Mohs technique has a number of advantages over other methods of skin cancer treatment because no guesswork is involved. The microscopic analysis allows us to remove only those structures involved with the cancer. In other words, the cancer is completely removed while normal tissues are conserved. This procedure results in the smallest possible tissue defect and therefore, the smallest possible scar.

In addition, the surgeon acts as the pathologist and immediately examines the removed tissue. The surgeon can directly compare what is seen on the patient's skin to microscope slides. This is not the case when tissue is sent to an outside person for interpretation.

The Mohs technique provides cure rates for primary (previously untreated) and recurrent (previously treated) basal cell and squamous cell cancer of 94%-99%. The cure rate varies depending on the type of cancer and the type of treatments already performed.



A CHECK LIST BEFORE SURGERY

- We recommend that you eat a light breakfast, take all your morning medications, and bring any medications with you that you will need for the day.
- Stop taking anti-inflammatory agents (ibuprofen, Motrin, Advil, Nuprin, naprosyn, Aleve, or Relafen) a week before the surgery. These medications thin your blood and increase the risk of bleeding.
- Medically necessary blood thinners (Coumadin, Warfarin, Aspirin, etc) should be continued unless your cardiologist tells you to stop them.
- To improve wound healing, reduce the risk of infection, and achieve the best possible cosmetic outcome, please refrain from smoking and consuming alcohol for three days before and after your surgery.
- If you have a medical condition, such as a heart murmur or an artificial valve or joint, which requires that you take antibiotics before dental or surgical procedures, please let us know. We will arrange for you to obtain these antibiotics before you arrive for surgery.
- Be prepared to stay all day; please do not make other plans or appointments for the day.
- Feel free to bring reading materials, a computer (we have free Wi-Fi), snacks/lunch, and a fleece or extra layers to keep warm.
- Some patients enjoy the company of a friend or family member during the procedure. Most patients are able to drive themselves home; however depending upon the site of your surgery (i.e. eye or foot), you may need to arrange for transportation.

BEFORE SURGERY



- The team will review your medical and surgical history, drug allergies, and medications to ensure a smooth procedure. This is often best accomplished beforehand with a consultation. If you notice that your biopsy site is healing and/or fading, please contact our office prior to surgery for a photo. (If the doctor cannot locate the site, we may have to reschedule.)
- Your skin cancer surgery will be performed in an outpatient surgery unit with local anesthesia. To decrease your risk of infection, please shower morning of surgery and wash surgical site thoroughly. Wear comfortable clothing.

While your surgery will be completed as quickly as possible, you should plan to spend the whole day with us. Most patients are here for 4-6 hours.

ON THE DAY OF SURGERY



- Our staff will prepare you for surgery by taking your vital signs, photographing the skin cancer, and obtaining your signed informed consent for the surgery.
- We will then cleanse and numb the area using a local anesthetic. Surgery will begin with the removal of a small piece of skin including the cancer. Any bleeding will then be stopped and a bandage applied to the area.
- You can relax in your private room or in the waiting room while the tissue is processed for microscopic examination by the surgeon.
- If the microscopic examination shows persistent cancer, an additional stage of surgery will be necessary. On average, Mohs surgery requires two or three stages to completely remove the skin cancer.
- Once the cancer is removed, we will discuss your options for managing the surgical wound. In most cases, we will proceed with the reconstruction immediately. On occasion, special arrangements will need to be made for your reconstruction.

WHAT TO EXPECT AFTER SURGERY



Discomfort

During surgery, pain is prevented by the use of local anesthetic injections. Typically, the anesthesia loses its effect 3-6 hours after surgery is complete. Tylenol alone usually takes away further pain.

Bleeding

Great care will be taken to seal all blood vessels during surgery, and a pressure dressing will be applied before you leave our office. These two measures should prevent any significant bleeding. Occasionally, post-operative bleeding occurs. Those individuals who are on blood thinners, drink alcohol before or after surgery, or who stretch or traumatize the wound within the first few days after surgery may be more prone to this type of bleeding.

If bleeding through the pressure dressing occurs, apply firm, even pressure with your hand for a full 20 minutes. If this does not halt the bleeding, call our office at (650) 326-7222 or go to the nearest emergency room.

Bruising

Bruising around the operative site is common. These will disappear similar to other bruises. The eyelids and cheeks are particularly sensitive. Bruising of one or both eyes may occur, even when they are not directly involved with the surgery.

Drainage

All wounds will have some drainage. This should steadily improve each day. Increasing drainage can be a sign of infection.

Infection

Any time the skin is broken, by trauma, surgery, or other causes, an infection is a risk. Fortunately, close attention to wound care largely prevents infection from occurring. Non-infected wounds will gradually become less red and less painful each day after surgery. Infection is signaled when redness and pain increase. If you suspect an infection, call us immediately. Infections are treated with antibiotics.

Swelling

One can expect some swelling (edema) the week after surgery. Swelling will be worst the first two to three days after surgery and should gradually resolve. Applying ice and sleeping with the surgical site elevated is helpful in minimizing post-operative swelling.

Redness

It is normal for surgical wounds to become red. The redness is part of normal wound healing. Increasing redness spreading out from the wound can be a sign of infection or an allergic reaction. If you suspect a problem, please call our office.

Scarring

Scars always result from surgery of the skin. Our intent is to minimize the scarring and provide the best possible cosmetic outcome. Scars continue to heal and mature for 12-18 months after surgery. On occasion, a second procedure can help disguise the scar further.

FOLLOW-UP VISITS AFTER SURGERY



Most patients have their surgery and reconstruction completed within 3 visits before returning to their dermatologist for long-term skin care. Occasionally, some scars and grafts may benefit from a second surgery for revision. We will review these issues at your post operative visit(s).

Our staff is always available for any questions that may arise before or after your surgery. Please do not hesitate to give us a call.

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