




Mohs Micrographic Surgery



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What is Mohs Surgery?



Mohs surgery is a technique to surgically remove the skin cancer and meticulously map the area to precisely pinpoint its location on the skin.

Each layer of tissue is processed and placed on slides to be evaluated underneath the microscope. The entire deep and peripheral margin is evaluated for residual cancer cells.

If any cancer cells are seen the surgeon will mark the area of positivity on the map and excise each sequential tissue layer that shows residual cancer cells while preserving the surrounding healthy skin. This process will be repeated until no cancer cells are seen underneath the microscope.

The goal of Mohs surgery is to evaluate 100% of the margin around the skin cancer to ensure it does not grow back while preserving as much normal skin as possible. Even with this meticulous mapping system rare recurrence may occur, these recurrences are shown to be less than 2% for the most common forms of skin cancer. At the end of your Mohs surgery you will have a surgical wound. Once we have cleared your skin cancer we will discuss options and recommendations for repairing the surgical wound.



Who performs Mohs Surgery?

Mohs surgery is performed by a provider who is specialized in dermatologic surgery and cutaneous oncology. Mohs dermatologic surgeons receive 3 years of specialty training followed by one year of subspecialty training in the Mohs procedure. Many Mohs surgeons are board certified in Dermatology and Micrographic surgery and dermatologic oncology.



What to expect after Mohs Surgery

It is helpful if a family member or friend is present for the Mohs surgery and when discussing wound care. There may be times when we require a family member or friend to drive you home based on location of your skin cancer.

Following surgery the wound will remain numb for roughly 2 hours. Though most people do not complain about uncontrollable pain, we do recommend taking acetaminophen (Tylenol) or ibuprofen (Advil, Motrin) when you get home to get ahead of any discomfort once the numbing agent wears off. Icing around the area will also help prevent significant swelling.

Prior to leaving our office our staff will discuss wound care instruction in detail and provide you a written list of instructions as well as frequently asked questions and answers.

Depending on your wound you may need to return to the office in 1-2 weeks to have sutures removed.

Following surgery we recommend you follow up with your general dermatologist every 6-12 months.



Possible Complications of Mohs Surgery

With any surgical procedure there is a risk of complications and you will develop a scar. Every effort will be made to leave you with the best cosmetic outcome possible. Proper wound care at home will help the healing process and minimize the scarring.

It will often take months before a wound has completed its healing process and the best cosmetic outcome is achieved.

Bleeding after surgery, although uncommon, is the most common complication after Mohs surgery. In an effort to minimize this complication we apply a pressure dressing that stays on and dry for 48 hours after surgery and encourage patients to refrain from physical activity such as the following:

- no heavy lifting or bending
- no rigorous exertion of exercise
- not making significant plans in the days immediately after your surgery

Infection is another possible complication, however it occurs in 1-2% of patients. It is normal for a wound to be surrounded by mild redness, however if this redness enlarges or does not improve in the days following your surgery or if you should notice drainage/pus or increasing tenderness in the surgical area please notify us immediately.

Swelling and bruising is a common consequence of surgery, especially when working around the eye. Icing the area with an ice pack within the first 24-48 hours of surgery will be beneficial.

Numbness around your wound may be present at the time of surgery and may persist for months. There are rare times where numbness can be permanent. This is due to trauma to the small nerve endings in your skin when removing the tumor. In the majority of cases the numbness is temporary and will resolve within weeks to months.

Skin cancer cure rates using Mohs surgery are greater than 95%, however there are rare instances of tumor recurrence. This can happen in the same area as the first skin cancer. More commonly new skin cancers will develop in other areas.

Options for surgical repair

The size of the wound will depend on the extent of tumor seen underneath the microscope and is often more extensive than what can be seen with the naked eye. Therefore, surgical wounds tend to be larger than most patients anticipate. The primary goal of Mohs surgery is to remove the skin cancer completely, after that has been achieved the secondary goal is to repair the wound in a way that will provide the best functional and cosmetic outcome possible. There are several options for surgical wound repair including:

- Healing by granulation – this means letting the wound heal on its own. There are certain areas of the body that will heal itself as well as a surgical repair. After that healing is achieved if the scar is not cosmetically pleasing a reconstructive procedure can be planned for a later date.
- closing the wound side to side with stitches – this involves bringing two edges of the skin together with stitches. This will hasten the healing process and offer an excellent cosmetic outcome.
- skin flaps – this involves moving adjacent normal skin in to fill in the surgical wound. This form of closure is chosen for the superior cosmetic match of nearby skin.
- skin grafts – there are two types of skin grafts used to cover a wound, these grafts are taken from another area of the body
 - a split thickness skin graft is a thin layer of skin usually taken from the thigh
 - a full thickness skin graft is a thicker layer of skin taken to achieve an acceptable cosmetic result.

The donor site is stitched together and the graft is sewn into place into the wound.

On very rare occasion if the skin cancer is extensive we will coordinate tumor removal in our office followed by surgical wound repair in the operating room. This will be discussed prior to your Mohs surgery date.



How Can I Prevent Future Skin Cancers

There is a higher chance of developing additional skin cancers after having had one skin cancer. Skin cancer is most commonly associated with exposure to UV light, this is why skin cancer most commonly develops on sun exposed areas of the body such as the head, neck, and forearm.

Skin cancers also occur more frequently in fair skinned individuals. The damage that your skin has already had cannot be reversed however you can prevent new damage from happening.

Prevention tips:

- Minimize outdoor activity during peak sunlight hours (10 A.M. to 3 P.M.)
- When in the sun, wear a wide brimmed hat and sun protective clothing as much as possible
- Use sunscreen that is SPF 30 or higher and is broad spectrum, apply every 2 hours while outside, you may need to apply more frequently if perspiring or swimming.
- Make sure to apply sunscreen even on cloudy days, UV light will penetrate through the clouds and can still be damaging to the skin
- Wear sunglasses that block both ultraviolet A (UVA) and ultraviolet B (UVB) rays
- Be aware of light-colored reflective surfaces such as sand, water, and snow; these can magnify potential harm to the skin
- Avoid tanning beds/booths and sun lamps
- protect children from the sun, blistering sunburns as children increase the risk of skin cancer development later in life.

If you have a family history of skin cancer you should be especially cautious about sun exposure. Check your skin regularly for signs of skin cancer such as change in size, shape, or texture of an existing mole or blemish, the appearance of a new mole, or a new sore that does not heal. Report any unusual findings to your dermatologist.

