**PATIENT INSTRUCTIONS for MOHS and SKIN SURGERY**

***1. What parameters are to be checked/optimized before surgery?***

* **Coagulation status (clotting ability of the blood) and inherited tendency to bleed.** If medically not absolutely needed, we recommend patients to avoid nonsteroidal anti-inflammatory drugs (Ibuprofen, Advil, Nurofen, Motrin, Naproxen, Naprosyn, Aleve, Flanax, Midol, Diclofenac, Voltaren, Zipsor, Zorvolex, Celecoxib, Celebrex, Mefenamic acid, Ponstel, Etoricoxib, Etodolac, Lodine, Indometacin, Toradol, Ketorolac, Ketoprofen, Oruvail, Orudis, Genpril, Midol, Propinal, Clinoril, Feldene, Mobic, Vivlodex, Flurbiprofen, Ansaid, Tolmectin, Tolectin DS, etc), aspirin (ASA), or aspirin containing products for at least one week to ten days prior to surgery. Prophylactic Aspirin (ASA, Bayer, [Ascriptin](https://www.drugs.com/aspirin.html), [Bufferin Low Dose](https://www.drugs.com/otc/106433/bufferin-low-dose-buffered-aspirin.html), [Durlaza](https://www.drugs.com/mtm/durlaza.html), [Ecotrin](https://www.drugs.com/mtm/ecotrin.html), [Ecpirin](https://www.drugs.com/mtm/ecpirin.html), [Halfprin](https://www.drugs.com/mtm/halfprin.html), [Miniprin](https://www.drugs.com/mtm/miniprin.html)) 81 mg daily usually is discontinued one week to ten days before surgery. Please follow our specific instructions on this issue.
* If anticoagulants (Coumadin, warfarin) or antiplatelet agents (aspirin, clopidogrel, etc) are needed because of a history or current risk of serious clotting (thrombotic) events in the heart, brain, blood vessels or elsewhere in the body as determined by your doctor, we recommend to continue anticoagulants and antiplatelet medications during surgery because the risk of a severe thromboembolic event outweighs the risks of bleeding during surgery. Otherwise discontinue them 1 week to 10 days before surgery and re-start them 3 days after surgery.
* For patients taking Coumadin, coordinating with other care providers is needed to keep the INR less than or equal to 3, but within the therapeutic window required to treat the patient’s medical problem.
* Avoid alcohol consumption at least 3 days prior to surgery and 3 days after surgery.
* Avoid over the counter products and supplements that can produce bleeding such as fish oil. Please consult the label of any supplement you are taking for anti-platelet or anticoagulant (blood thinning) properties. Please consult with us if any uncertainty.
* Most hemostasis can be safely obtained by using electrocautery or electrodessication and a pressure bandage.A history of any other bleeding tendencies needs to be evaluated on an individual basis.
* Please inform doctor if any of these situations apply to you.
* **Immune suppression.** History of HIV, other immune suppressive disorders, immunosuppressive medications (corticosteroids, organ transplant patients, CLL, etc.) need to be known because they predispose the patient to infections. The doctor may prescribe prophylactic antibiotics to be taken after the surgery in this situation. HSV (herpes simplex virus) prophylaxis for patients with frequent outbreaks and treatment of current episodes before the procedure is warranted. Please inform doctor if you have a chronic herpes virus infection.
* **Risk for infections**. Prophylaxis with antibiotics (anti-infection medications) is usually given to patients with a history of prostheses or implants (heart valves or joints), certain heart murmurs or valvular disease, who have a high risk for surgical site infection, such as certain surgeries done on some parts of the face, groin, lower extremities, or after performing skin grafts or flaps.
* **Cardiovascular instability.** In patients with a history of severe high blood pressure, chest pain, heart failure, or fast pace of the heart, or patients taking beta-blocking medications, it is preferable to use for anesthesia plain lidocaine without epinephrine. Please inform doctor if any of these conditions apply to you.
* **Patients with a Pacemaker.** For patients with pacemakers and implantable cardioverter-defibrillators, it is safest to utilize electrocoagulation using bipolar forceps or a hand-held heat cautery device. However, commonly practiced precautions of applying short bursts less than 5 seconds, using minimal power, and avoiding use of electrosurgery around the implanted device also have a low rate of complications.

2. ***What are some of the immediate risks associated with skin surgery and Mohs/Staged excision Surgery?***

* **Bleeding**. We minimize bleeding risks by obtaining an adequate preoperative medical history and having a sound preoperative plan (ie, to avoid nonsteroidal anti-inflammatory (NSAIS) drugs, other supplements with anticoagulant or anti-platelet properties, to adjust warfarin, to stop 7 to 10 days in advance of surgery any preparation containing aspirin (acetylsalicylic acid, ASA) when medically safe. Postoperative bleeding occurs more frequently with repairs, especially large flaps. Postoperative bleeding rarely occurs in wounds left to granulate, except when patients neglect the wounds.
* **Nerve damage**. Sensory nerve loss often occurs because small sensory fibers are severed during tumor excision. Deficits in regional sensation are usually short-term because of regeneration of these nerve fibers. Motor nerve damage may occur if these nerves are interfered during surgery. Although we take all measures to minimize this occurrence, it can occur infrequently.
* **Infection**. Infections are rare with modern cleansing and surgical techniques. For patients with lesions in areas with high risk for surgical site infection, oral antibiotics are usually prescribed by the doctor.
* **Dehiscence (splitting of the surgical wound), necrosis (occurrence of dead tissue in the area of surgery), hematoma (blood accumulation), seroma (yellowish fluid accumulation), ecchymoses (bruises)** are associated with procedures involving repairs (simple wound closures, or more complicated procedures such as flaps and grafts).
* **Allergic reactions**. Medication allergies are common. Besides allergies to oral antibiotics, many patients are allergic to topical antibiotics. The most common topical offenders include bacitracin/polymyxin B sulfate (Polysporin), neomycin/gramicidin/polymyxin (Neosporin), and bacitracin. For patients who are allergic to a topical antibiotic listed above, use an ointment base (Aquaphor), petrolatum, or mupirocin (Bactroban).

**3. *Questions frequently asked by patients:***

* **What types of skin surgery are available?** **Mohs** surgery as well as staged excision consist of taking small layers of skin and checking with a microscope if the whole tumor is removed. It allows best preservation of the surrounding skin and ensures that all the tumor is removed. May take longer time since all the processing of the specimens is made immediately after removing the tumor. Mohs /Staged Excisions are performed on the face, neck and hands, in sensitive areas where skin preservation is very important. **Simple excision** consists of excising a skin cancer with margins. Specimens are checked by pathology and a follow-up visit is scheduled in 2 weeks at which time results are available to confirm that all the skin cancer was removed.

* **Can I eat before surgery?** Patients should eat as usual unless otherwise instructed.
* **How long does the procedure take?**Mohs surgery may take the whole day. Most people who come in the morning will be done by lunch time, but this cannot be guaranteed. This delicate procedure is done in stages. Dr. Steinnor his staff can give you an exact time. We recommend you bring a small snack in the event you are here for an extended time.
* **For how long should I avoid getting the surgical area wet?** 48 hours for the linear closures and flaps; 4 - 7 days for grafts.
* **Can I continue to apply Aldara or Effudex to the area?** These need to be discontinued at least 2 weeks before the procedure to allow healing of the area.
* **Is Mohs surgery/staged excision the best treatment option for all skin cancers?** It gives the best cure rate (up to 99%), for certain lesions where this approach is recommended, but some insurances may not cover Mohs for all skin cancers.If you have any type of suspicious skin lesion you should seek evaluation by a dermatologist. If skin cancer is suspected, he or she may recommend and perform a biopsy. Mohs surgery may be recommended based on the type and location of the skin cancer, as well as other factors. If your dermatologist does not perform this technique, he or she will be able to refer you to a fellowship trained Mohs surgeon in your area.
* **Will Mohs staged excision surgery be covered by my insurance plan?** Mohs surgery, if recommended by the dermatologist, is covered by most insurance plans, including Medicare. Please ask your employee benefits administrator and/or physician’s billing specialist to determine if there are any estimated out-of-pocket expenses.
* **Will skin surgery and Mohs surgery leave a scar?** All surgical procedures have the potential for certain degree of visible scarring. The appearance of a post-Mohs surgical scar will depend on several factors, including size and location of the final defect, individual skin characteristics, and the reconstruction options available. You should keep in mind, however, that the tissue-sparing nature of the Mohs technique may result in a smaller, less noticeable scar than other skin cancer removal methods. The Mohs surgeon also may be able incorporate suture lines into the patient's natural skin lines and folds. Most scars improve in appearance naturally over time, and future scar revision techniques may be employed if necessary.
* **My skin cancer is in a very noticeable facial area and I am concerned about my appearance following Mohs surgery. Should I have the skin cancer removal performed by a plastic surgeon?** If it is your preference to have a plastic surgeon perfom the reconstruction after the removal of the skin cancer, you may discuss this ahead of time with your Dermatologist/Mohs surgeon during your preoperative visit. Your Mohs surgeon's office will be able to help coordinate this type of shared treatment approach. If the skin cancer involvement is extensive or in difficult areas, your Mohs surgeon will recommend and collaborate with other subspecialties.
* **What are advantages of the Mohs/staged excision Surgery (provided that this is recommended by the Dermatologist)?** Some skin

 cancers can be deceptively large – far more extensive under the skin than they appear to be from the surface. These cancers may have “roots” in the skin, or along blood vessels, nerves, or cartilage. Skin cancers that have recurred following previous treatment may send out extensions deep under the scar tissue that has formed at the site. Mohs surgery is specifically designed to remove these cancers by tracking and removing these cancerous “roots.” For this reason, prior to Mohs surgery it is impossible to predict precisely how much skin will have to be removed. The final surgical defect could be only slightly larger than the initial skin cancer, but occasionally the removal of the deep “roots” of a skin cancer results in a sizeable defect. The patient should bear in mind, however, that Mohs surgery removes only the cancerous tissue, while the normal tissue is spared. Therefore, Mohs surgery results in a reduced scar formation, potentially less than than simple excision, give the more conservative tissue removal employed.

* **What is wound closure?**

Wounds heal more quickly when the wound is cleaned and the wound edges are held together (closed). Types of wound closure are: linear closure, flap, graft, or healing naturally (second intention healing). Small wounds can be held together with tape strips called Steri-Strips or tissue adhesive spray. If a cut or surgical incision is deep, long, jagged, or under some tension, stitches (also called sutures) or staples may be needed to close the wound. The care of a stapled wound is similar to the care of a sutured wound.

* **What is the difference and what are the advantages between a flap vs. a graft?** Whether to use a skin graft versus a tissue flap depends upon the condition and requirement of the recipient bed. A skin graft depends on the availability of blood supply of the recipient site. A well-vascularized bed can accept a graft while a poorly vascularized bed requires flap coverage. In addition, size, location, and aesthetics often dictate the choice. Initially, a skin graft is more red and irregular, but over time as the graft matures (three to six months), the graft will smooth out but will retain the color and consistency of the donor site, which is a shortcoming of a skin graft. A local flap can provide a superior aesthetic result because it allows replacement of "like with like." However, the performance of a skin flap depends on the availability of suitable surrounding skin (the so-called tissue reservoir) that needs to be present in the immediate vicinity of the wound so it can be displaced to cover the surgical defect. Moreover, when large defects need to be filled or structures recreated, a flap will be considered.
* **What are stitches, staples, or other types of wound closures removed?**

Steri-Strips are usually left on until they fall off. If they have not fallen off after 2 weeks, they should be removed. Tissue adhesive usually falls off in 5 to 10 days. The adhesive should not be scratched or picked at. For deep cuts the first stitches are placed under the skin. These stitches are made of materials that dissolve and do not need to be removed. Sutures or staples on the surface of the skin need to be removed by your healthcare provider 5 to 14 days after they are put in. Sutures in wounds on the face usually can be removed after just 6 or 7 days. In areas of high stress, such as hands, knees, or elbows, the sutures must stay in longer, typically 10 to 14 days. Your provider will tell you when you should come to the office for removal of your sutures or staples. Do NOT remove sutures yourself unless your provider instructs you to do so. Staples are alternatives to sutures and will be used when they are a better option than sutures.

**4.  Instructions for after surgery**

Avoid exercise or exerting after surgery, until your physician says it is ok. This includes golfing, tennis, gardening, house cleaning, walk the dog, lifting kids or grandkids, etc. If the wound is located close to the mouth avoid talking as much as possible. Eat healthy diet, stay hydrated, avoid smoking or drinking alcohol.

Taking care of your surgical site early on improves the likelihood of the best healing and cosmetic outcome.

After a wound is closed it must be kept clean. Do not let it get wet for the first 48 hours for simple closures and for flaps. Or for 4-7 days for grafts or staged repairs. Follow closely your physician’s any specific instructions. After this it will be fine to remove your dressing and replace it with a fresh one. If you are on blood thinners you may want to wait more. Be sure to follow the advice that your physician gives you specifically.

* For defects reconstructed with simple direct closure or flaps (using adjacent skin to cover the one removed during surgery) - patients will leave the bandage alone for 48 hours unless the dressing becomes dirty or soaked with blood, pus, or the site develops symptoms such as pain, redness, heat, bleeding or discharge. Afterwards, change the bandage daily by first cleaning with saline and subsequently applying topical antibiotic ointment. Do not remove the steri strips, allow them to stay until they fall off by themselves. Wash hands thoroughly before accessing the wound and be very clean.
* For wounds repaired with skin grafts (skin taken from a distance to cover the skin removed during surgery) or a staged repair, you need to leave the dressing untouched for 4 to 7 days, unless the dressing becomes dirty or soaked with blood, pus, or the site develops symptoms such as pain, redness, heat, bleeding or discharge. Do not allow the area to get wet for 4 to 7 days after surgery. Afterwards, change the bandage daily by first cleaning with saline and subsequently applying topical antibiotic ointment.
* For wounds left to heal open by granulation [‘secondary intention’], start in 3 days to cleanse the wound with normal saline solution and then apply topical petrolatum ointment or antibiotic ointment 1-2 times a day. If the dressing becomes dirty or soaked with blood, pus, or the site develops symptoms such as pain, redness, heat, bleeding or discharge contact us immediately.
* Please watch the following educational video on Mohs surgery postoperative care from the American College of Mohs Surgery:

<https://www.youtube.com/watch?v=5XwWViMYclA&t=540s>

Before you begin changing your dressing you will need to set up the following supplies: clean water in a clean container, soap, gauze, cotton tip applicator, petroleum jelly, non-stick telfa dressings, gauze, adhesive tape, scissors, plastic bag and a receptacle to receive the old dressing. If you had a skin graft or staged repair you need to follow precisely our specific recommendations.

Before you change dressing thoroughly wash your hands with soap and water. Gently remove the dressing. Stabilize the wound with your non-dominant hand and very gently pick and peel the dressing with your dominant hand so avoiding to disrupt the integrity of the wound and its surgical repair. If it is difficult to remove, moisten with additional water. Water from the shower may also help to loosen the dressing for you. Next you will need to clean and evaluate your wound. Saturate a piece of gauze with water and hold it against the wound to soften it. Wet a cotton tip with water and roll it up and down on the wound until it is lean. Once you have cleaned the wound site, the next step is to inspect it. A normal wound can look slightly pink and perhaps a tad swollen. If on inspection you observe separation of the stitches, active bleeding, puffiness, expanding redness, extreme tenderness, worsening pain, warmness to touch, or if it smells malodourously, you see pus, or if you experience a fever above 101 degrees, chills, nausea or vomiting you should call us right away (Office tell. 702-847-6555, Dr. Stein Cell. 718-753-6536). To put on a fresh dressing, first apply the ointment evenly along the incision, cover the wound with a non-sterile pad and then cover the entire dressing with adhesive tape. In some cases you may find it easier to cover the wound with a simple bandage. You will need to change your dressing once a day until you have your sutures removed or you are directed by your physician. If you received dissolvable sutures your physician does not need to remove them.

Do not use lotions, powders, cosmetics, sunscreen, or other skin care products on your wound unless told to do so by your provider.

It is normal to experience some pain. The level of pain experienced will be determined by your individual tolerance. Postoperative pain is generally mild to moderate. Start pain management early in order to lessen its intensity and duration. Discomfort should improve after the first 2 to 3 days.

We recommend to avoid nonsteroidal pain killers (NSAIDs) including but not being limited to medications such as: Ibuprofen, Advil, Nurofen, Motrin, Naproxen, Naprosyn, Aleve, Flanax, Midol, Diclofenac, Voltaren, Zipsor, Zorvolex, Celecoxib, Celebrex, Mefenamic acid, Ponstel, Etoricoxib, Etodolac, Lodine, Indometacin, Toradol, Ketorolac, Ketoprofen, Oruvail, Orudis, Genpril, Midol, Propinal, Clinoril, Feldene, Mobic, Vivlodex, Flurbiprofen, Ansaid, Tolmectin, Tolectin DS, etc), aspirin, or aspirin containing products (ASA, Bayer, [Ascriptin](https://www.drugs.com/aspirin.html), Bufferin, Durlaza, [Ecotrin](https://www.drugs.com/mtm/ecotrin.html), [Ecpirin](https://www.drugs.com/mtm/ecpirin.html), [Halfprin](https://www.drugs.com/mtm/halfprin.html), [Miniprin](https://www.drugs.com/mtm/miniprin.html)) for at least 1 (one) week to 10 (ten) days before surgery. Avoid to start any such blood thinning medications after the surgery for the treatment of pain.

It is recommended to use for postoperative pain, if necessary, Tylenol (Acetaminophen), without exceeding the usual recommended doses, which commonly are 1 to 2 tablets (of regular strength 325mg) every 6 hours when pain is present. Do not exceed 10 tablets in 24 hours. Patient should refrain from use of Tylenol (Acetaminophen) or other commercial products containing acetaminophen if there are liver problems present. **Patients should use ONLY 1 medicine containing the same active ingredient at a time.** Patient should call the office (tell. 702-847-6555, Dr. Stein Cell. 718-753-6536) for further instructions in any cases of uncertainty or when chronic diseases or side effects are present.

You may also see some mild redness on or around the wound as it heals. The bruising and swelling will get worse before it gets better. It is generally the worst 2 days after surgery, after which it will start to gradually improve. The bruising should resolve completely in 7-14 days. Reduce swelling and provide mild pain relief by performing cold compress therapy. Apply a frozen pack or a bag of zip-lock of ice cubes for up to 20 minutes every hour to the site with care to avoid excess cooling. This can represent a useful adjunct in controlling pain.

Some bleeding is also to be expected. You may see blood stains on the edges and in the middle of the wound dressing. If dressing becomes saturated with blood or if blood is dripping from it apply direct pressure on it with a clean cloth, tissue, or a piece of gauze. Hold it firmly for a full 20 minutes without peaking. If bleeding doesn’t stop, repeat for another 20 minutes. If it is still bleeding contact our office immediately or go to the nearest Emergency Room.

Any wound can become infected. Contact your provider immediately if you notice any of these signs. Signs of infection include:

• redness

• red streaks

• swelling

• pus

• drainage

• warmth in the area of the wound

• fever

• increased pain or tenderness, extreme pain

Numbness or tingling on or around the surgical site is also common and should improve in the weeks or months following surgery.

 Patients should return to clinic as directed, generally in a few days up to two weeks (mainly depends on location and the type of surgery) for suture removal/wound check. Commonly face is approximately 5 to 7 days, neck and scalp 10-12 days, extremities 10-12 days, and trunk 12-14 days. You may need to return sooner if so instructed or if problems or symptoms develop at any time after the surgery, as instructed above. Follow the specific instructions given specifically to you by your physician.

 Help is available and will be coordinated for the patients unable to perform appropriate wound care. Please discuss this at the time of your appointment or call us at 702-847-6555.