JOHNS HOPKINS
MEDICINE

SKIN CANCER (MOHS) RECONSTRUCTION

Thank you for choosing the Johns Hopkins Facial Plastic and Reconstructive Surgery Center for your upcoming surgery. We want you to have the best and safest experience possible. If you have any questions or concerns, please do not hesitate to contact our office. We look forward to helping you achieve your goals!

Important Phone Numbers

- **Dr. Patrick Byrne:** (410) 955-4985
- **Dr. Kofi Boahene:** (410) 502-2145
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- **Evenings/Weekends Emergency:** (410) 955-5000 – *please ask for the ENT resident on-call*

General Information

- **The Good News:** Skin cancers of the face, when treated appropriately and in a timely fashion, are often highly curable. The most common skin cancers are basal cell carcinoma, squamous cell carcinoma, and malignant melanoma. Pre-cancerous lesions are labeled as being "in-situ."

- We work very closely with dermatologic surgeons to provide coordinated care to ensure that you achieve the most optimal results, both in the excision of the cancer as well as reconstruction of the resulting defect.

- **MOHS** surgery is frequently recommended to excise basal cell and squamous cell carcinomas of the face. It is a highly effective technique and often yields the highest cure rates, lowest recurrence rates, and best cosmetic results. It is typically completed in one day by your MOHS dermatologic surgeon, but the duration of surgery is often unpredictable.

- **Melanoma and melanoma-in-situ** tend to be managed somewhat differently.
  - It is more difficult to identify microscopic melanoma cells using same-day MOHS surgery, although the development of special stains has improved this technique.
  - Your dermatologic surgeon may therefore recommend either "slow MOHS" or "two-bladed technique." Both options may require staged procedures (more than one procedure, spaced several days apart). For either option, the goal is to ensure that the margins (outside edges of the normal-appearing skin surrounding the cancer) are free from cancer cells that cannot be seen by the naked eye.
  - Biopsy results are very important for melanoma. The thickness/depth of the cancer determines how much normal-appearing skin around the melanoma should be excised. Depending on the biopsy results, we may also recommend that you undergo a sentinel lymph node biopsy.

- **Reconstruction Timing:** Reconstructive surgery is typically scheduled to follow several days after your MOHS/dermatologic surgery. This ensures that the skin cancer was safely and definitively excised. The dermatologic surgeon will place a dressing over the defect and/or teach you simple wound care instructions to keep the wound clean in the meantime.

- **Reconstruction Goal:** Our goal is your goal: to achieve the best functional and aesthetic outcome possible. We consider it a success, when at one year after surgery (when you are considered to be fully healed), you are able to live your life without being burdened by the appearance of the scar. It may require more than one procedure to optimize the outcome, but the great news is that well over the majority of our patients are able to achieve this goal.

- **Reconstruction Principles:** The ideal reconstruction utilizes the simplest option(s) to achieve the goal. The choice depends most on the size, depth, and location of the defect. Most commonly used techniques are:
  - **Local flap**: Tissue adjacent to the defect is stretched and moved to cover the defect.
  - **Skin graft**: Skin is taken from elsewhere on the body ("donor site") to close the defect. This will also leave a scar at the donor site.

- **Interpolated flap**: Tissue located some distance away is lifted and moved to cover the defect, but is left attached to its blood supply. A second procedure is performed to divide the blood supply 3-4 weeks later. An example is paramedian forehead flap for a nasal defect.
- **Healing by secondary intention**: no surgery is performed; the wound is left open to heal gradually over time using wound care alone.
- Not uncommonly, **a combination of techniques** is utilized and more than one surgery (or **stage**) is planned.

- **Risks:** All procedures involve a certain amount of risk and limitations. Although the risks of skin cancer reconstruction are low, potential complications from surgery include and are not limited to bleeding, infection, numbness, facial weakness, delayed wound healing, need for further procedures, and suboptimal cosmesis. The risks are significantly increased in patients who smoke.

- **Alternatives:** The alternative for surgery is healing by secondary intention (described above). In some cases, this technique is actually recommended. In most other cases, it can lead to unfavorable scarring.

- **Surgery and General Postoperative Expectations:**
  - Surgery is generally performed at an ambulatory surgery center as an outpatient (go home the same day). Occasionally, the surgery is performed in the procedure room in clinic.
  - After the operation, you will most likely return for a postoperative visit the following week for suture removal.
  - If a skin graft was used for reconstruction, a "bolster" dressing is placed which requires removal 10-14 days after surgery.
  - Most patients return to work in 1 week, after their first postoperative visit. However, patients who require a forehead flap or multiple stages as part of their reconstruction typically take off 1 month or more from work.
  - The scar will initially be red but will gradually fade over the course of 1 year. It is critical to protect the scar from sun exposure during this time to minimize long-term discoloration.

What You Will Need:

- Prescriptions given day before or day of surgery
- Aquaphor
- Hydrogen peroxide
- Cotton-tipped applicators (Q-tips)
- After surgery: bioCorneum® OR sunscreen (at least SPF 30) + silicone therapy (gel or sheets)

Before Surgery:

- **Preoperative Evaluation:** It is mandatory that you obtain a preoperative physical within 30 days of your surgery date. This may be arranged with your primary care physician or in the preoperative clinic at Johns Hopkins. Depending on your medical history, you may also need an Anesthesia evaluation prior to surgery.

- **Medications to Avoid**: Please avoid the following medications for a minimum of 2 weeks prior to surgery.
  - Aspirin or aspirin-containing products
  - Non-steroidal anti-inflammatory drugs (NSAIDs), i.e. Ibuprofen, Motrin, Advil, Alleve, Naproxen, etc.
  - Ginkgo biloba, ginseng, vitamin E supplements

- **Nothing to Eat/Drink After Midnight:**
  - You must not eat or drink anything after midnight on the night before your operation.
  - An exception can be made for some essential prescription medications; please consult with your primary care physician and Dr. Byrne.

- **Family/Friend Arrangements:**
  - If surgery is performed in the clinic procedure room without any anxiety medication, you can drive yourself to the clinic and drive yourself home.
  - If surgery is performed at a surgery center, you must have a friend or family member drive you to the surgery center and drive you home afterwards. This is mandatory. You are not allowed to travel alone or in a cab after your operation. You must also make arrangements to have someone stay with you during the first 24 hours after the operation. After anesthesia, you will likely require assistance with simple activities and wound care. Furthermore, it is important to have someone available in the unlikely event that a complication develops.
  - If necessary, we can help you obtain private nursing care. Please let us know if this will be helpful for you.

Day Of Surgery:

- **Attire:** Please wear loose and comfortable clothing that is easy to take off and put back on. A top with buttons or zipper is recommended. Please do not wear any makeup to surgery.

- **Team:** You will meet the anesthesiologist, nursing staff, as well as the surgeon and any of their additional team members (such as the fellow) on the day of your surgery. Please feel free to ask any remaining questions. Let your Anesthesia team know if you have a known history of nausea following surgery.

At Home After Surgery:

- **Dressing:** You may have a pressure dressing on your wound. This initial dressing is typically removed 24 to 48 hours after surgery. Specific instructions will be provided at your visit.

- **Head Elevation:** Keep your head elevated (the height of 2 pillows is appropriate) for 1 week to help with swelling.

- **Ice:** You may apply cold compresses to the surgical site, up to 20 minutes of each hour while awake after surgery, for the first 48 hours. This will help reduce swelling and bruising.

- **Shower:** You may start showering as soon as the postoperative dressing is removed, either one or two days after surgery. Daily showers are recommended. Do not let the shower spray hit your incisions directly and do not soak your face in water. Allow soapy water to run all over the scalp, face, and neck incisions. Towel blot your face and neck gently after your shower.

- **Incision Care:** Clean the incisions with soapy water twice daily. Apply aquaphor ointment four times a day. The incision will heal most optimally if it is kept moist and clean. You can use hydrogen peroxide on Q-tips to gently clean any crusts, if necessary. Do not rub but gently dab the incision to clean. No dressings specifically covering the incision are necessary. The sutures will be removed 1 week after the operation. After incisions are healed, scars can be optimized with application of sunscreen and silicone gel/sheets.

- **Medications:** Take the medications as prescribed. You can take Tylenol in addition to the narcotic pain medication prescribed. Resume all home medications the night of surgery unless otherwise directed. Avoid aspirin and NSAIDs for one week after surgery.

- **Activity:** Resume normal activities of daily living, as you feel able. However, avoid strenuous activity and heavy lifting (more than 10 lbs) for 3 weeks after surgery. Light activity such as walking may be resumed after 1 week after surgery. Sport activities may be resumed 1 month after surgery.

- **Seek Medical Attention:** Call the office or seek medical attention if you develop fever greater than 101 degrees, a painful area of fullness and bruising, excessive pain that is not well-controlled, skin rash, visual disturbances, or other unusual symptoms.

Follow-Up Care:

- **First Appointment:** You will return one week after surgery for an appointment for suture and cast/dressing removal. There are additional sutures inside your nose that will dissolve on their own.

- **Postoperative Healing:** Your nose will be swollen and will remain so for several weeks. It is important to keep in mind that although much of the swelling resolves over the first several weeks after surgery, it takes 12 to 15 months for all of the swelling in the nose to resolve. However, most patients have a good appearance even 2-3 weeks after the operation.

- **Additional Appointments:** Ideally, we would like to see you about 3 months after surgery to examine the healing. After this, the follow-up is quite variable, and depends on how you are doing and feeling. Often, this means visits at about 6 months and 12 months after surgery to follow your healing process. Please call the office at any time if you have any questions or concerns and would like to be seen sooner than your next scheduled visit.