

Dear Patient:

You have been referred for Mohs micrographic surgery for your skin cancer. This packet is designed to help you learn more about the procedure and prepare for your surgery. It includes the following:

- 1. A description of Mohs micrographic surgery**
- 2. Instructions concerning your Mohs surgery appointment**
- 3. Informed consent you will sign on the day of the surgery**

Please review all the materials carefully as this will give you a better opportunity to ask questions or discuss any concerns you may have at the time of your consultation.

History

Developed by Frederick E. Mohs, M.D. in the 1930's, the Mohs micrographic surgical procedure has been refined and perfected for more than half a century. Initially, Dr. Mohs removed tumors with a chemo surgical technique. Thin layers of tissue were excised and frozen before being pathologically examined. He developed a unique technique of color-coding excised specimens and created a mapping process to accurately identify the location of the remaining cancerous cells.

As the process evolved, surgeons refined the technique and now excise the tumor, remove layers of tissue and examine fresh tissue immediately. The chemo surgical technique developed by Dr. Mohs is no longer used. The heart of the procedure – the color-coded mapping of the excised specimens and their thorough microscopic examination – remains the definitive part of the Mohs micrographic surgical procedure.

Effectiveness

The cure rate for Mohs micrographic surgery is the highest of all treatments for skin cancer. Clinical studies have shown that Mohs micrographic surgery has a five-year cure rate up to 99 percent in the treatment of basal cell and squamous cell carcinomas. This procedure, the most exact and precise method of tumor removal, minimizes the chance of regrowth and lessens the potential for scarring or disfigurement.

Treatment Issues

Common treatment procedures often prove ineffective because they rely on the human eye to determine the extent of the cancer. In an effort to preserve healthy tissue, too little tissue may be removed resulting in recurrence of the cancer. If the surgeon is overcautious, more healthy tissue than necessary may be removed, causing excessive scarring.

Some tumors do not respond to common treatments, including those greater than two centimeters in diameter, those in difficult locations and tumors complicated by previous treatment. Removing a recurring skin cancer is more complicated because scar tissue makes it difficult to differentiate between cancerous and healthy tissue.

Mohs micrographic surgery is primarily used to treat basal and squamous cell carcinomas, but can be used to treat less common tumors including melanoma. Mohs surgery is indicated when:

- The cancer was previously treated and recurred
- Scar tissue exists in the area of the cancer
- The cancer is in an area where it is important to preserve healthy tissue for maximum functional and cosmetic result, such as eyelids, nose, ears, lips
- The cancer is large
- The edges of the cancer cannot be clearly defined
- The cancer grows rapidly or uncontrollably

Procedure

The Mohs process includes a specific sequence of surgery and pathological investigation. Mohs surgeons examine the removed tissue for evidence of extended cancer roots. Once the most visible tumor is removed, Mohs surgeons trace the paths of the tumor using two key tools:

- A map of the surgical site
- A microscope

Once the obvious tumor is removed, the Mohs surgeon:

- Removes an additional, thin layer of tissue from the tumor site
- Creates a “map” or drawing of the removed tissue to be used as a guide to the precise location of any remaining cancer cells
- Microscopically examines the removed tissue thoroughly to check for evidence of remaining cancer cells

If any of the sections contain cancer cells, the Mohs surgeon:

- Returns to the specific area of the tumor site as indicated by the map
- Removes another thin layer of tissue only from the specific area within each section where cancer cells were detected
- Microscopically examines the newly removed tissue for additional cancer cells

If microscopic analysis still shows evidence of disease, the process continues layer-by-layer until the cancer is completely gone.

The selective removal of only diseased tissue allows preservation of much of the surrounding normal tissue. Because this systematic microscopic search reveals the roots of the skin cancer, Mohs surgery offers the highest chance for complete removal of the cancer while sparing the normal tissue.

Reconstruction

The best method of managing the wound resulting from surgery is determined after the cancer is completely removed. When the final defect is known, management is individualized to achieve the best results and to preserve the functional capabilities and maximize aesthetics. The Mohs surgeon is also trained in reconstructive procedures and often will perform the reconstructive procedure necessary to repair the wound. A small wound may be allowed to heal on its own, or the wound may be closed with stitches, a skin graft or a flap. If a tumor is larger than initially anticipated, another surgical specialist with unique skills may complete the reconstruction.

Cost Effectiveness

Besides its high cure rate, Mohs micrographic surgery also has shown to be cost effective. In a study of costs of various types of skin cancer removal, the Mohs process was found to be comparable when compared to the cost of other procedures, such as electrodesiccation and curettage, cryosurgery, excision or radiation therapy. Mohs micrographic surgery preserves the maximum amount of normal skin and results in smaller scars. Repairs are more often simple and involve fewer complicated reconstructive procedures. With its high cure rate, Mohs surgery minimizes the risk of recurrence and eliminates the costs of larger, more serious surgery for recurrent cancers.

The Mohs Surgeon

The highly trained surgeons that perform Mohs micrographic surgery are specialists both in dermatology and pathology. With their extensive knowledge of the skin and unique pathological skills, they are able to remove only diseased tissue, preserving healthy tissue and minimizing the cosmetic impact of the surgery.

INSTRUCTIONS FOR YOUR MOHS SURGERY

Medications: Continue all of your prescribed medications. If you are taking aspirin or other blood thinners as prescribed by another physician, these should be discontinued, with permission of the prescribing physician, 5-7 days before the procedure. If you are taking aspirin as prophylaxis, with no history of heart disease, stroke, or other vascular conditions, please discontinue it for at least 10 days prior to surgery. Call us to inquire if you are not sure what to do. Do not take any non-steroidal anti-inflammatory medications, vitamin E, garlic, or herbal supplements for at least 10 days prior to surgery, unless you discuss it with the surgeon.

Alcohol: Do not drink any alcohol one week before and one week after the surgery.

The day of the procedure:

- Eat a normal breakfast the day of the surgery. **Bring lunch or snacks** as you will be spending several hours with us.
- Wear comfortable clothing. Please, select a shirt that buttons up the front, instead of slipping over your head.
- Take a shower and wash your hair on the morning of your surgery. **Do not apply makeup** if your surgery is on the face.
- Be prepared to **WAIT!** Local anesthesia is used, and you will be awake during the procedure. Mohs surgery is done in stages. During each stage a thin layer of tissue is removed and brought to our in-office laboratory for examination. The wound is dressed and you are permitted to return to the waiting room. The first stage may take up to two hours. If additional tumor exists, you will be brought back to the operating room where the next layer is removed and brought to the lab for processing and examination. Surgery continues until all margins are clear of tumor.
- Once the tumor is cleared, repair options will be discussed with you and an appropriate repair performed or scheduled for next day. Occasionally, a wound is allowed to heal by itself without a repair. At other times, you may be referred to another specialist for the repair. Please be prepared to have a scar! Unfortunately, skin cancers are often larger than seen by the naked eye and, as a result, the scars are frequently larger than expected. The goal of the surgery is to remove all the cancer and leave you with as excellent a cosmetic result as possible.
- The nature of the procedure is such that you may need to spend a significant part of the day with us. You might want to bring some reading material to help pass the time. While not necessary, it is helpful to bring a family member or a close companion as it may be necessary for him/her to change your dressing, drive you home, or just keep you company.

After the surgery: An appointment will be made for wound assessment and management ranging from days, weeks, to months. Usually, the sutures are removed in 1-2 weeks. We ask you to avoid exercise, heavy lifting, bending, or other kinds of exerting activities for the duration of the sutures.

Periodic follow-ups should be made with your referring physician to assess for new cancers or recurrences. Although Mohs surgery has the highest cure rate compared to other methods of skin cancer treatment, a small number of patients have recurrences, and it is recommended that all return appointments be kept.