Matthew H. Steele, MD
Cosmetic and Reconstructive Plastic Surgery

Mohs Surgery and Reconstruction

Mohs surgical excision of skin cancers was developed in the 1930's by Dr. Frederick Mohs. The technique has evolved and improved over the last 80 years and is easily tolerated by patients.

What is Mohs surgery?

Mohs surgery describes a technique of skin cancer excision that removes only a small portion of normal skin around the skin cancer. The cancerous tumor is then frozen and small biopsies are taken around the edges (margins) and on the deep surface. The biopsies are placed onto a slide and the dermatologist or pathologist then reviews the slide to make sure all of the cancer is removed. A "map" is made of the skin wound and the skin cancer. If there is a positive margin (skin cancer left behind), the map will tell the Mohs surgeon where to take another margin. Margins are taken until there is no skin cancer left behind. In some cases, multiple excisions are required to obtain clear margins, thus ensuring all of the cancer is removed. The cure rate using the Mohs technique is 98-99%. Because the area excised is smaller, the overall cosmetic outcome is better as well.

Who performs Mohs surgery?

Special training is required to perform Mohs surgery. This usually involves a fellowship to learn how to remove the cancers and read the pathology slides. In most practices, a Mohs surgeon is a specially trained dermatologist. In the Siouxland area, the only Mohs-trained dermatologists are Dr. Daffer and Dr. Chabra at the Midlands Clinic. Dr. Steele's office will arrange an appointment with their office prior to your Mohs excision.

Who should have Mohs surgery?

Mohs surgery is recommend for high risk non-melanoma skin cancers as well as most skin cancers involving the eyelids, nose, lips, ears, hands, and feet. Other indications include the following:

-Large cancers in normally low risk areas (chest, arms, back)
-Cancers with indistinct borders/edges
-Cancers with certain features seen under the microscope (ex- morpheaform BCCA)
-Recurrent cancers
-Incompletely removed cancers

Mohs surgery is also useful for some other rare, atypical skin growths. Unfortunately, Mohs surgery is not effective in treating melanoma, which requires standard surgical excision with possible lymph node biopsies.

What is the typical process for Mohs surgery and reconstruction?

After you have been seen in consultation by Dr. Steele, he will arrange for an appointment with the Mohs surgeons if he feels Mohs surgery is appropriate for your skin cancer. After coordination with the Mohs surgeon, you will have a date set for Mohs excision and then a date set for surgical reconstruction by Dr. Steele 1-3 days after your Mohs surgery. Mohs surgery is performed under local anesthesia at the dermatologist's office. You may go about your normal routine and eat breakfast and lunch during your procedure. In some cases, you may be at their office all day. Once the cancer has been completely removed, you will have a bandage placed over your surgical wound. Keep the dressing dry and do not remove the dressing unless instructed by the Mohs surgeon.

You will be given specific instructions for your surgery to reconstruct the wound left behind after surgical excision. If you have an early morning surgery, you should have nothing by mouth after midnight. If your surgery is scheduled later in the day, you may have a light meal up to 8 hours before your scheduled surgery. The surgery center will call you the day before with instructions regarding diet, medications, and time of arrival.

Why is the Mohs surgery separated from the reconstruction with Dr. Steele?

Dr. Steele does not perform Mohs surgery. As a result, a larger defect is created when he excises the tumor. In some areas like the tip of the nose, Dr. Steele would wait for the final pathology to return, which means the patient has an open wound for at least a week instead of a few days. Additionally, traditional pathology only examines a small portion of the margins of the tumor, while Mohs surgery examines 100 percent of the margins, thus ensuring a very low risk of tumor recurrence. Having your Mohs surgery on a day preceding your surgical repair allows you to eat, go about your normal routine, and there is no concern about a conflict with scheduling the repair: some Mohs excisions last late into the day, well after the surgery center is closed.

On the day of your surgery, Dr. Steele will remove the dressing and then discuss the optimal type of repair such as a flap vs. a skin graft. You will be given specific instructions at discharge on how to care for you repaired surgical site.