

Karen J. Sundby, M.D.

MOHS SURGERY



MOHS SURGERY
DERMATOLOGIC SURGERY
CUTANEOUS ONCOLOGY

ROSE MEDICAL CENTER
4700 Hale Parkway, Suite 140
Denver, CO 80220
(303) 388-8807

This pamphlet contains important information.

Please read immediately in order to be prepared for surgery. If you have questions, please contact our office.

ROSE MEDICAL CENTER

4700 Hale Parkway, Suite 140
Denver, Colorado 80220

PHONE: (303) 388-8807

WEB: denverskincancer.com

Welcome to Our Practice.

We're pleased that you have chosen our office for your surgical care.

Our goal is to provide you with the quality care and expertise you expect and deserve.

This brochure has been developed not to replace our personal communication, but to complement it. We hope this information will answer some of your questions.

This brochure will acquaint you with our practice and give you a better understanding of how our facility works. We take great pride in our staff's training and professional capabilities. Please feel free to ask any questions you may have regarding your medical care, fees, insurance, or other office policies. We are concerned about you and welcome any suggestions that will improve the care you receive.

We are always happy to listen to any suggestions regarding our office procedures. It is essential that our patients are well informed, relaxed, happy, and, above all, confident.

For more information about skin cancer, please visit:

American College of Mohs Surgery

www.mohscollege.org

American Academy of Dermatology

www.aad.org

Your Appointment

DATE: _____

ARRIVAL TIME: _____

APPOINTMENT TIME: _____

Items to bring to your appointment:

- Insurance card
- Photo ID
- Payment Method (cash, check, Discover, Visa, Mastercard)
- Medication list (dosage and schedule frequency)
- Snack, lunch, drink
- Sweater (can be chilly in the office)
- Reading material
- Items to occupy your time

If you require supplemental oxygen, please bring enough to accommodate an entire day in the office.

Need to cancel your surgery appointment?

If you must change an appointment, please call us as soon as possible at (303) 388-8807.

This courtesy allows us to schedule another patient for medical care. A rescheduling fee may be assessed for appointments changed three days or less prior to surgery.



Karen J. Sundby, M.D.

Colorado's Skin Care Expert

Karen J. Sundby, M.D. (formerly Karen J. Johnson, M.D.), a native of Denver, Colorado, received her undergraduate degree from the University of Arizona where she graduated Magna Cum Laude and was elected to Phi Beta Kappa honor society. She received her medical doctorate from the University of Colorado School of Medicine where she graduated in the top 5% of her class and was elected to Alpha Omega Alpha medical honor society.

Dr. Sundby completed an internal medicine internship at the University of Colorado, then completed her dermatology residency at the University of Colorado where she served as chief resident. She then completed a fellowship in Mohs Micrographic Surgery and Cutaneous Oncology at the University of Pittsburgh Medical Center at Shadyside in Pittsburgh, Pennsylvania under the directorship of Drs. John A. Zitelli and David G. Brodland.

Dr. Sundby is board certified in dermatology and is a member of the American Academy of Dermatology and is a member of the American College of Mohs Surgery. She is also a member of the Colorado Medical Society, the Denver Medical Society, and the Colorado Dermatologic Society.

What special training has Dr. Sundby received?

Karen J. Sundby, M.D. is a specialist both in dermatology and pathology. With her extensive knowledge of the skin and unique pathological skills, she is able to remove only diseased tissue, preserving healthy tissue and minimizing the cosmetic impact of the surgery. Dr. Sundby is fellowship trained by a program recognized and approved by the American College of Mohs Surgery.

The American College of Mohs Surgery currently recognizes more than 50 training centers where qualified applicants receive comprehensive training in Mohs surgery. The minimum training period is one year during which the dermatologist acquires extensive experience in all aspects of Mohs surgery, pathology and training in reconstructive surgery.

What is Mohs Surgery?

Mohs surgery, an advanced treatment procedure for skin cancer, offers the highest potential for recovery—even if the skin cancer has been previously treated.

This procedure is state-of-the-art treatment in which the physician serves as surgeon, pathologist, and reconstructive surgeon. It relies on the accuracy of a microscope to trace and ensure removal of skin cancer down to its roots.

This technique allows dermatologists trained in Mohs surgery to see beyond the visible disease and to precisely identify and remove the entire tumor, leaving healthy tissue unharmed. This procedure is most often used in treating the most common forms of skin cancer: basal cell carcinoma, squamous cell carcinoma, and melanoma.

THE HISTORY OF MOHS SURGERY

Developed by Frederick E. Mohs, M.D. in the 1930s, the Mohs micrographic surgical procedure has been refined and perfected for more than half a century. Initially, Dr. Mohs removed tumors with a chemosurgical technique. Thin layers of chemically fixed tissue were excised for pathological

examination. He developed a unique technique of color-coding excised specimens and created a mapping process to accurately identify the location of remaining cancerous cells.

As the process evolved, surgeons refined the technique and now excise the tumor, remove stages of tissue which are color coded, mapped, frozen, sectioned, and immediately examined with the microscope by the physician. The chemosurgical technique developed by Dr. Mohs is no longer used.

This reduces the normal treatment time to one visit and allows for immediate reconstruction of the wound. The heart of the procedure—the color-coded mapping of excised specimens and their thorough microscopic examination—remains the definitive and unique part of the Mohs surgical procedure.

EFFECTIVENESS

Clinical studies have shown that Mohs micrographic surgery has a five-year cure rate up to 99% in the treatment of skin cancer. By using detailed mapping techniques and complete microscopic control, Dr. Sundby can pinpoint areas involved with cancer that are otherwise invisible to the naked eye. Therefore, even the smallest microscopic roots of cancer can be removed. The results are: (1) the removal of as little normal skin as possible, and (2) the highest possibility for curing the cancer. Using Mohs surgery, the percentage of cure is more than 99% for most skin cancers, even when other forms of treatment have failed. Other methods of treatment offer only a 50% chance of success if previous treatments have failed.

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 well 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.

INDICATIONS

Mohs surgery is primarily used to treat basal cell carcinoma, squamous cell carcinoma, and melanoma but can be used to treat less common tumors.

Mohs surgery is indicated when:

- the cancer was treated previously 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 functional and cosmetic results, such as eyelids, nose, ears, lips, cheeks, and forehead
- 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 visible tumor is removed, Mohs surgeons trace the paths of the tumor using two key tools:

- a map of the excised tissue
- a microscope

Once the obvious tumor is removed, Mohs surgeons:

- remove an additional, thin stage of tissue from the tumor site
- create a “map” or drawing of the removed tissue to be used as a guide to the precise location of any remaining cancer cells
- microscopically examine the removed tissue to check for evidence of remaining cancer cells

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

- return to the specific area of the residual tumor indicated by the map
- remove another thin stage of tissue only from the specific area(s) where cancer cells were detected
- microscopically examine the newly removed tissue for additional cancer cells

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

Selective removal of only diseased tissue using Mohs surgery allows preservation of much of the surrounding normal tissue. This systematic microscopic search reveals the roots of the skin cancer which is why Mohs surgery offers the highest chance for complete removal of the cancer while sparing the normal tissue. Cure rates exceed 99% for new cancers, and 95% for recurrent cancers.

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, reconstruction is individualized to achieve the best results and to preserve function 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. On occasion, another surgical specialist with unique skills may complete the reconstruction.

COST EFFECTIVENESS

Besides its high cure rate, Mohs 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 surgery preserves the maximum amount

of normal skin which results in a better cosmetic outcome. 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 additional costs of larger, more serious surgery for recurrent cancers. The Mohs procedure is performed in the surgeon's office and pathological examinations are immediate. The entire process is usually completed in a single day.



Preparing for Surgery

THE MORNING OF SURGERY

Please bathe or shower and wash your hair to minimize your risk of a surgical site infection.

Medical History

Upon arrival at our office you will be asked to verify or complete your medical history on our electronic medical record portal. **Please bring your list of medications and illnesses. Please also plan to arrive at least 30 minutes before your scheduled appointment.**

Medications

Continue all medications prescribed by your doctor including blood thinners like coumadin or aspirin. However, if you are taking aspirin, ibuprofen, or herbal supplements without your doctor's orders for a medical condition, please discontinue them 10 days prior to your surgery appointment (**including Anacin, Bufferin, Excedrin, Alka Seltzer, Percodan, Advil, Aleve, Motrin, oral vitamin E, ginko biloba**). You may take Tylenol if needed for pain. Alcohol will also promote bleeding, so avoid alcoholic beverages 48 hours before surgery.

Transportation

It may be necessary that you arrange to have a companion drive you to and from your surgical appointment because you may be given a mild sedative. You may also be more comfortable with someone to keep you company in the reception area.

Breakfast

The day of surgery, we suggest that you eat a normal breakfast, unless otherwise specified.

WHAT HAPPENS THE DAY OF SURGERY?

Your appointment will be scheduled early in the day. Our staff will escort you into a surgical suite where the surgeon will numb the area around the skin cancer. Once it is numb, the visible cancer and a narrow margin of tissue will be removed. This tissue is carefully mapped by the surgeon and taken to our laboratory where the technician will immediately process the microscope slides for the surgeon's examination. You will have a temporary bandage placed over the wound and you will be free to return to the reception area.

The surgical procedure alone takes only 10-15 minutes. However, it takes a minimum of 1-2 hours to prepare and microscopically examine the tissues of each stage. Several surgical stages and microscopic examinations may be required, and you will be asked to wait in the patient reception area between stages. Although there is no way to tell before surgery how many stages will be necessary, most skin cancers are removed in three stages or less.

We would like to make the time you spend with us as pleasant and comfortable as possible. You may bring reading material to occupy your time while waiting for the microscope slides to be processed and examined. You may want to bring a sweater, as the temperature in our office varies.

Magazines and beverages (coffee, hot tea) will be available in the reception area. Wireless internet access is also available in the reception area, so please feel free to bring your laptop computer.

If your visit extends through the lunch hour, your companion may visit the hospital cafeteria and bring you a snack or lunch, since you are asked not to leave the reception area of our office. Also, a small refrigerator is located in the waiting area for your convenience if you wish to bring a lunch from home.

Since we do not know in advance how much time is necessary to remove the skin cancer and repair the wound, we ask that you plan to be in the office the entire day and that you make no other commitments.

WHAT COMPLICATIONS MAY OCCUR?

Complications after Mohs surgery are rare, but may include a chance of bleeding or infection. For any complication or questions following the surgery, please review the written instruction sheet we will provide to you on the day of surgery.

WILL I BE HOSPITALIZED?

No, Mohs surgery is performed in a pleasant, out-patient surgical suite and you may return home the same day. Hospital facilities are available if necessary.

WILL THE SURGERY LEAVE A SCAR?

Yes. Any form of treatment will leave a scar. However, because Mohs surgery removes as little normal tissue as possible, scarring is minimized.

Immediately after the cancer is removed, we may choose: (1) to leave the wound to heal itself, (2) to repair the wound with stitches, or (3) to reconstruct the wound with a skin graft or flap. This decision is based on the safest method that will provide the best cosmetic result.

WILL I HAVE PAIN OR DIFFICULTIES AFTER THE SURGERY?

Most patients do not complain of pain. If there is any discomfort, Tylenol is all that is usually necessary for relief.

RESTRICTIONS AFTER SURGERY

For the best cosmetic result, we ask that you refrain from exercise and strenuous activity (increased heart rate, sweating, lifting, bending) for 2 weeks after surgery.

If you have questions about surgery, give us a call at (303) 388-8807.

We're happy to help make you feel comfortable prior to your scheduled surgery. Additional information can be found on our website at denverskincancer.com.



After Surgery

MAINTENANCE & PROTECTION

FOLLOW-UP APPOINTMENTS

Usually one return visit is all that is needed to examine the healed surgical site or to remove your surgical dressings. Afterwards, you may return to your referring dermatologist for routine check-ups.

A follow-up period for the treated skin cancer is essential.

After having one skin cancer, statistics show you have a higher chance of developing a second skin cancer. You should have your skin checked by your referring dermatologist at least once a year not only to examine the treated skin cancer, but also to check for new skin cancers.

PROTECT YOURSELF

The best protection from skin cancer is to avoid the harmful ultraviolet rays of the sun. Even if you tan easily, the sun can contribute to skin cancer in two ways. First, the sunlight damages genes that control cell growth, and second, sunlight damages the body's immune system so that early cancers grow unchecked by normal immune defense.

Minimize exposure by:

- **using any sunscreen with a sun protection factor** (SPF) of at least 30 and preferably with UVA/UVB protection when you spend anytime in the sun.
- **avoiding sun exposure during mid-day hours** (10 a.m. to 4 p.m.)
- **not going outdoors unprotected** on cloudy days since ultraviolet light penetrates easily through the clouds

If you follow this advice, it may not be necessary to restrict your outdoor activities or change your lifestyle.

Patient/Insurance Billing

Please be sure to bring your current insurance card and photo identification with you each visit. We will need to keep a copy in your records.

You can check your insurance coverage by calling the phone number on the back of your insurance card to check participation status for Karen J. Sundby, M.D.

You will be asked on the day of your appointment to pay for any services not covered by your insurance. Expenses not covered include deductible, co-insurance, co-pay amounts, occasionally office visits, and cosmetic procedures. Payments may be made by cash, check, or credit card (Visa, Mastercard, Discover).

If prior authorization or referral is required, please contact your insurance company or your primary care physician at least one week prior to your appointment.

Let them know the following: You are having Mohs surgery performed in an office setting under procedure Code 17311 or 17313.

We would not want anyone to be denied medical care because of an inability to pay. If you have difficulties understanding or paying your bill, we encourage you to discuss your concerns with our billing staff.

We do accept Care Credit, a health care credit card. Please visit their website for more information at carecredit.com.

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