



SEA COAST  
SKIN SURGERY

Patient Information Brochure



**SEA COAST**  
SKIN SURGERY

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**Greg E. Viehman, MD**

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Howe Creek Landing  
710 Military Cutoff Rd, Suite 200  
Wilmington, NC 28405

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Main: 910-256-2100

Toll Free: 877-256-7004

Fax: 910-256-7999

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[SeaCoastSkinSurgery.com](http://SeaCoastSkinSurgery.com)

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# SEA COAST

SKIN SURGERY

Welcome to SeaCoast Skin Surgery. Our practice specializes in the treatment of skin cancer. Your doctor has referred you to our office for evaluation and treatment of your skin cancer. We specialize in Mohs Micrographic Surgery and Laser Surgery that utilize highly sophisticated microscopic and technologic methods to provide the highest possible cure rates with the least amount of surgery.

**Our Mission:** SeaCoast Skin Surgery is an outpatient skin surgical center. Our mission is to provide the highest quality of healthcare by emphasizing patient education and providing access to the most technologically advanced procedures available. We pledge to take care of every patient's individual needs in a comfortable, friendly, and professional environment. Our staff is committed to making your surgical experience the finest it can be.

The term "cancer" can be a frightening one. We are dedicated, however, to putting your mind at ease through comprehensive patient education, compassion, and personal attention. This booklet is designed to completely inform you about skin cancer, its treatment, and prevention. We have detailed information about being a skin cancer patient at our facility, including pre-operative and post-operative instructions and expectations, and our policies and procedures. Please also visit our special New Patient Page on our web site for more information at: [SeaCoastSkinSurgery.com](http://SeaCoastSkinSurgery.com).



Greg E. Viehman, MD has lectured nationally on dermatologic surgery, authored several published articles, and written a book on dermatologic differential diagnosis.

## About our Physician

Dr. Viehman was born and raised in Wilmington, Delaware. He attended and graduated magna cum laude from the University of Delaware. Dr. Viehman attended medical school at Jefferson Medical College in Philadelphia, Pennsylvania and graduated number one in his class. He completed an Internship in Internal Medicine at the Hospital of the University of Pennsylvania in Philadelphia, and a dermatology residency at Duke University Medical Center, where he was chief resident. Dr. Viehman completed his fellowship in Mohs Micrographic Surgery and Dermatologic Surgery with Dr. Clark at the Dermatologic Surgery Unit & Cosmetic Laser Center at Duke University Medical Center. He was Assistant Director from 1997–98. Dr. Viehman was then a cofounder and medical director at the Cary Skin Center in Cary, North Carolina, from 1998–2008. Dr. Viehman has lectured nationally on dermatologic surgery, authored several published articles, and written a book on dermatologic differential diagnosis. Dr. Viehman has multiple interests, including Bible study, surfing, swimming and paddleboarding. Dr. Viehman and his wife, Ruth, have two sons, Brendan and Cameron, a daughter, Hannah, and a border collie named Pepper.

- Board Certified, American Board of Dermatology
- Fellow, American Academy of Dermatology
- Fellow, American College of Mohs Surgery
- Member, North Carolina Medical Society

# What Is Skin Cancer?

All cancer originates from uncontrolled and abnormal growth of cells. Cells are the small individual units that together make up the different organs of our body. Cell growth is normally very tightly regulated and controlled by the body. Skin cancer is the result of uncontrolled and abnormal growth of cells that originate in the skin. A tumor results when the unregulated cells continue to grow and increase in number. Different types of skin cancer develop from the different types of normal cells that reside in the skin. Skin cancers are removed to prevent the tumor from further invading and destroying the normal structures that surround it and from spreading to other parts of the body (this is called metastasis). Metastasis is very rare except in melanoma and a few other unusual forms of skin cancer that are not common.

## Types of Skin Cancer

### Basal Cell Carcinoma

Basal cell carcinoma (BCC) is the most common type of skin cancer and accounts for 79% of all skin cancer. BCC originates from the bottom layer of cells in the epidermis (surface layer of skin) called the basal layer. BCC is the least dangerous type of cancer since it is slow growing and rarely spreads to other parts of the body except under extreme circumstances. It can, however, invade and destroy the local area and cause deformity if left untreated. This type of cancer is most common on the sun exposed areas of the head, neck, arms, and legs.

BCC usually appears as a sore that won't heal or a pearly, shiny bump or knot that sometimes has small blood vessels within the affected area. The area may bleed with minor trauma. This tumor can be mistaken for pimples, cysts, scars, and rashes.

### Squamous Cell Carcinoma

Squamous cell carcinoma (SCC) is the second most common type of skin cancer (15% of all skin cancer). It also arises from the outer layer of the skin from cells in the epidermis called squamous cells. SCC can occur anywhere on the skin, but is most common on the face and arms. It has many appearances, but most commonly is a rough and scaling bump or patch.

Unlike BCC, squamous cell carcinoma can spread into the lymph nodes and blood stream and become life threatening. This is more common in large and aggressive squamous cell carcinomas, cancers located on the ears, lips, or genitalia, or recurrent skin cancers that have been treated before. The overall chance of any squamous cell carcinoma spreading outside the local region is about 2%.

Squamous cell carcinoma in situ (also known as Bowen's disease) is a superficial form of SCC that is limited to the epidermis or the outer layer of skin. Although SCC in situ does not grow deep into the skin, it can be very extensive in its diameter or width.

### **Melanoma**

Melanoma is a form of skin cancer that develops from the pigment-making cells of the skin that give it color called melanocytes. These skin cancers are usually black or brown as a result. Melanoma accounts for 1–2% of all skin cancer.

There are two common forms of melanoma that we see. Melanoma in situ (also known as Lentigo Maligna) is a superficial and slow-growing form of melanoma. This type is usually a large very slow growing freckle or brown patch of skin on the sun exposed areas. Although it tends to not be very dangerous, it can evolve into a Malignant Melanoma.

Malignant melanoma (MM) is a very dangerous form of skin cancer that has a strong tendency to spread to other parts of the body, but has an excellent prognosis if caught early. MM can occur anywhere on the skin, but is most commonly located on the legs of women or the backs of men. It is usually a brown to black lesion which is not uniform in border, color, or surface. The “ABCDE’s of melanoma” help distinguish a MM from a regular mole. The acronym stands for Asymmetry (most healthy moles are uniform), Border (irregular), Color (irregular or change in), Diameter, and Evolving (changing).

# Skin Cancer Facts and Figures

Skin cancer is the most common of all types of cancer. Over one million skin cancers are diagnosed each year in the United States alone. This is more than the combined number for all cancers of the prostate, breast, lung, colon, uterus, ovaries, and pancreas. The incidence of skin cancer has been on the rise for the past few decades.

- Basal cell carcinoma is the most common and accounts for 79% of all skin cancers.
- Squamous cell carcinoma is the second most common form of skin cancer (15% of all). More than 250,000 cases are diagnosed each year, resulting in approximately 2,500 deaths each year.
- One in five Americans and one in three Caucasians will develop skin cancer in the course of a lifetime.
- Skin cancer is the #1 cancer in men over age 50, ahead of prostate, lung, and colon cancer.
- The percentage of women under age 40 with basal cell carcinoma has tripled in the last thirty years, while their rate of squamous cell cancer has increased fourfold.
- Melanoma is the third most common cancer in women ages 20–39.
- More than 20 people die each day from skin cancer, primarily melanoma.
- One in 59 men and women will be diagnosed with melanoma during their lifetime.
- The survival rate for melanoma patients with early detection is about 99%. The survival rate falls to between 15% and 65% or higher, depending on how far the disease has spread.

## What Causes Skin Cancer?

### Ultraviolet (UV) Light and Sunburns

The sun gives off invisible rays of radiation energy. Ultraviolet rays are the ones most responsible for damaging the skin and causing cancer. When the skin is injured from UV light, it defends itself by tanning, but tanning does not prevent skin cancer. It is only a sign that the skin has been damaged. Most people receive 80% of their sun exposure by age 18. The damage to the skin from UV light accumulates over the years, making skin cancer more likely in older individuals.



### **Tanning beds are artificial sources of UV light.**

- One blistering sunburn in childhood more than doubles a person's chances of developing melanoma later in life.
- More than 90% of all skin cancers are caused by sun exposure.
- A person's risk for skin cancer doubles if he or she has had five or more sunburns.
- Ultraviolet radiation is a proven human carcinogen, according to the U. S. Department of Health and Human Services.
- Exposure to tanning beds before age 35 increases melanoma risk by 75%.
- People who use tanning beds are 2.5 times more likely to develop squamous cell carcinoma and 1.5 times more likely to develop basal cell carcinoma.
- Occasional use of tanning beds almost triples the chances of developing melanoma.
- New high-pressure sunlamps emit doses of ultraviolet radiation that can be as much as 15 times that of the sun.

### **Genetics/Hereditiy**

Although sun exposure is the most important risk factor for skin cancer, there are other important risks to consider. People with a family history of skin cancer are at increased risk. Fair complexions with skin that easily burns or does not readily tan are also risk factors. Certain ethnic groups such as Scottish, Irish, and Northern Italians are particularly prone to skin cancer due to their fair skin. Melanoma occurs very strongly in certain families due to genetic factors. These people are at a much higher risk for melanoma.

### **Other Causes**

Other causes for skin cancer include radiation, chronic arsenic exposure, certain wart viruses, and exposure to coal tar or pitch derivatives. If you have a history of any of these please notify our office at your appointment.

## **Skin Cancer Treatments**

There are many different ways to treat skin cancer. Treatment selection depends upon the type of cancer, its location, size, and other aspects of a patient's medical history. Your dermatologist or physician has expertise in selecting which treatment modality is best for your individual case. The standard treatments include:

### **Surgical Methods**

#### **1. Electrodesiccation and Curettage**

This method removes skin cancer by the combination of a surgical instrument called a curette and an electrical current delivered through a special needle. The tumor is first scraped with the curette and then further destroyed with the electric needle. This process is usually repeated three times. It is highly effective and very commonly used. It can often be done the same day as a biopsy for convenience if the diagnosis is certain. Stitches are not needed for this method. A small bandage is worn to cover the area until it heals.

#### **2. Surgical Excision**

Surgical excision is a very common and effective method for treating skin cancer. A surgical scalpel is used to incise and remove the cancerous tissue. The tissue that is removed is then sent to a pathology lab where the margins are checked to ensure the tumor was completely removed, which can take a few days. Surgical excision can be performed in the office with only local anesthesia in most circumstances. This method usually requires stitches for one to two weeks.

#### **3. Mohs Micrographic Surgery**

Mohs Micrographic surgery is a specialized form of surgery performed by a skin cancer specialist. This method is the most precise and accurate method for skin cancer removal, providing cure rates up to 98–99%. In this method, the physician is both the surgeon and the pathologist, enabling the margins to be checked while you wait. Mohs surgery is often performed on the “high risk” areas of the central face, which will be discussed in detail later in this booklet.

#### **4. Laser Therapy**

A pulsed beam of light is used to selectively destroy tumors that are superficial.

#### **5. Cryotherapy**

A skin cancer is frozen with liquid nitrogen, which kills the cancerous tissue. Although this method is not commonly used today, it can be very effective in expert hands.

### **Non-Surgical Methods**

#### **1. Imiquimod (Aldara)**

This is a topical form of therapy approved for superficial forms of basal cell carcinoma. The cream is applied daily for over a month and activates the body's immune system to help kill the cancer.

#### **2. Radiation Therapy**

Special X-rays are used to kill the cancer cells in a series of treatments. This method is sometimes used along with surgery for very large or aggressive tumors. It is performed by a special doctor called a radiation oncologist.

#### **3. Photodynamic Therapy**

Light and special chemicals are combined to kill cancer cells.

# Your Treatment At SeaCoast Skin Surgery

SeaCoast Skin Surgery is a referral center for the treatment of skin cancer. Your dermatologist or physician has special expertise in the diagnosis and management of skin cancer and has referred you to our center. Mohs Micrographic Surgery, Surgical Excision, and Laser Therapy are all commonly used in our practice. Your physician may have already determined the best treatment modality for your skin cancer. During your consultation, we will review what method is most suitable for you.

If your skin cancer has recurred or “come back,” then Mohs Micrographic Surgery will likely be indicated. Skin cancer is microscopic and can have “roots” and “fingers” that are invisible to the eye. This causes some standard treatment modalities to occasionally fail. Mohs surgery has the ability to “track” and remove even the smallest microscopic traces of skin cancer. In this next section, we will discuss Mohs surgery in detail.

## Mohs Micrographic Surgery

Mohs Micrographic Surgery is the most advanced and effective treatment available today for skin cancer. The procedure is performed by specially trained surgeons who have completed at least one additional year of fellowship training (in addition to the physician’s three-year dermatology residency) in a certified Mohs fellowship by the American College of Mohs Surgery. The physician serves as the surgeon, pathologist, and reconstructive surgeon for complete integration of care. Mohs surgery is the most exact and precise method of tumor removal. It minimizes the chance of regrowth and lessens the potential for scarring or disfigurement.

Initially developed by Dr. Frederic E. Mohs in 1941, the Mohs procedure is a state-of-the-art treatment that has been continuously refined over 70 years. Certain types of cancers in specific locations have a tendency to grow with microscopic “roots” that make tumor removal difficult with standard techniques. The Mohs surgeon is able to see beyond the visible disease using a microscope to precisely identify and remove the entire tumor layer by layer, while leaving the surrounding healthy tissue intact and unharmed. This microscopic examination occurs immediately in the Mohs lab while you wait.

### Advantages of Mohs Micrographic Surgery for Selected Skin Cancers

- Has the highest cure rate (up to 98–99%)
- Spares the most normal surrounding skin during cancer removal
- Minimizes scarring and the chance for disfigurement
- Is the most exact and precise method of tumor removal
- Efficient: allows everything to be completed in one day with certainty
- Safe & Cost Effective: outpatient surgery, using local anesthesia only

### Why Does My Cancer Need Mohs Surgery?

Mohs Micrographic Surgery is effective for most types of skin cancer and is most commonly used to treat basal cell carcinoma and squamous cell carcinoma. Standard surgical excision is still the treatment of choice for malignant melanoma, which we perform at SeaCoast Skin Surgery. Your referring doctor has special expertise in deciding which tumors need Mohs Micrographic Surgery. There are many factors that contribute to the decision-making process. Mohs surgery is usually the treatment of choice when:

- The tumor is located on the central face, eyelids, nose, lips, ears, mouth, or cheek. These are known as the high-risk areas of the body for skin cancer. Tissue sparing is also especially important in these areas.
- A skin cancer has recurred after being treated in the past.
- The tumor is very large.
- The cancer is very aggressive in its growth or microscopic appearance.
- The borders of the tumor are not clearly defined.
- The cancer is located in a highly sensitive cosmetic area.
- Scar tissue exists in the area of the cancer.
- The patient has an immune deficiency such as a solid organ transplant.

### **The Process: How Does Mohs Surgery Work? (See diagram on pages 16–17. )**

The procedure begins with local anesthesia to the surgical site. After this has taken effect, the visible portion of the tumor or biopsy site is gently scraped with a curette. This helps to delineate the area involved by the tumor. Tumor cells don't stick together well like bricks with bad mortar. The tumor will "shell out" when scraped with the curette. Next, the Mohs surgeon removes a small and thin "pancake-like" layer of tissue around the surgical site. During this process, a precise Mohs surgical map is made of the tissue and removal site.

The tissue is then transported to the laboratory where it is marked, prepared, and sectioned into slides for the Mohs surgeon to analyze under the microscope. The surgeon then examines all of the surgical margins to check for evidence of remaining cancer cells. The entire bottom and outer edge of the Mohs section ("pancake") are checked for cancer. This ensures that any small roots or fingerlike projections of cancer do not elude detection and cause a tumor to recur. It is this special processing and examination of all the tissue margins that makes Mohs surgery different and more effective than standard techniques for indicated tumors.

If any of the sections contain cancer cells, the surgeon marks the exact location of the tumor on the Mohs map and then returns to the patient for another layer. This time the surgeon only has to remove tissue in those specific areas marked on the map. The rest of the surgical site is left alone, sparing normal skin and minimizing the cosmetic impact. This process is repeated in stages until the cancer is completely removed.

### **Reconstruction: Repairing the Wound**

The Mohs surgeon is also extensively trained in reconstructive procedures and often will perform the necessary reconstruction to repair the wound. As soon as the affected area is declared cancer-free, the Mohs surgeon discusses post-surgical options with the patient, such as:

- A small, simple wound may be allowed to heal on its own.
- A slightly larger wound may be closed with stitches.
- Larger wounds may require a skin graft or a flap.
- If the tumor is very large, another surgeon with special skills may be called upon to assist with reconstruction.

## About Our Mohs Surgery Unit

Dr. Viehman received his training for Mohs surgery at Duke University Medical Center from 1997–1998 under the direction of Dr. Robert E. Clark, MD, PhD. This was a specially certified Mohs Micrographic Surgery fellowship approved and accredited by the American College of Mohs Surgery. Dr. Viehman then practiced in Cary North Carolina at the Cary Skin Center for 10 years, performing thousands of Mohs surgery cases. Our laboratory is directed by Dr. Viehman, CLIA certified, and has specially trained laboratory personnel.

## CO2 Laser Therapy

The CO2 laser is a carbon dioxide laser that is used to treat sun damaged skin including Actinic Keratoses, Actinic Cheilitis, selected cases of Squamous Cell Carcinoma in Situ, and as a method of scar resurfacing.

When a CO2 beam of light comes in contact with the epidermal layer of the skin it heats and vaporizes the tissue instantly removing the targeted superficial layers of the skin or scar tissue while smoothing out the surface of the skin. New skin and collagen growth occurs at the laser site with little to no visible scarring.

Treatment with a CO2 laser is fairly brief. Prior to laser therapy, the treatment area is injected with local anesthesia which may result in mild discomfort. Little to no pain is felt during the laser procedure itself. In total, a laser appointment is approximately 30 minutes or less.

Recovery time following the CO2 laser treatment is approximately 10-14 days, however this is variable. An airtight dressing will be applied following the procedure. After 24 hours, the treated area will need to be cleaned and an airtight dressing should be applied daily. Directions for wound care will be given on the day of the procedure.

Following CO2 laser treatment one can expect mild redness, swelling, discomfort/pain, bruising, drainage, and/or bleeding. “Pinkness of the skin” can persist for several months. Over-the-counter pain reliever may be taken as needed. Patients are usually able to return to work the same day or the following day.

## **Surgical Excision**

Patients with a diagnosis of melanoma or other tumors may receive a standard surgical excision if indicated.

## **What to Expect if You Are a Skin Cancer Patient at SeaCoast Skin Surgery**

We are dedicated to providing you the very best information possible about your cancer diagnosis, treatment, and follow-up care. The following information will help you understand what to expect before, during, and after your visit to our skin cancer center.

### **Before You Arrive**

Please get a good night's sleep before your surgery. If you are coming to us from far away, you may want to stay at one of our local hotels the night before. Please call our office for a list of local hotels that we have arrangements with for our patients. You may eat breakfast/lunch before surgery, unless we advise you otherwise. Please also continue to take all physician PRESCRIBED medications as usual, including blood thinners. This includes physician-prescribed aspirin, warfarin (Coumadin), Plavix, Aggrenox, and other similar medications. If you are taking aspirin for preventative measures only and your physician has not prescribed this medication, then please stop it at least one week before surgery (ideally two weeks). If you have any questions, please call our office.

### **Consultation and Examination**

In order to provide excellent healthcare, a detailed consultation and pre-operative evaluation are performed before surgery. For patient convenience, this is often performed the same day as the surgery. Please complete our new patient history form BEFORE arriving at our office. You will receive it in the mail, or you may download it from our web site. List the medications you are taking, drug allergies, and other past and present medical problems since many of these have the potential to affect your skin cancer surgery.



Upon arriving at our facility, you will check in at the reception desk. Please bring all of your forms and insurance cards with you. Once you have completed check-in you will wait briefly in the waiting room until a nurse escorts you back to one of our modern surgical suites. This will be your room for the duration of your stay. You and your family may either stay in this room or go back and forth to the waiting room once the Mohs procedure starts. We recommend that all patients be escorted by someone who can drive them home.

Our staff will review your medical history, medication list, allergies, and pathology report from your doctor. You will then be asked to confirm the location of the skin cancer. The exact location of your skin cancer is essential before we can proceed any further. Sometimes several weeks or more can pass between your biopsy and the skin cancer surgery at our office. The exact location is sometimes “lost” during this period of time. We recommend that you take a picture of the exact location as soon as possible after the biopsy. Please mark the area with a pen or point to it in the photo. Please make sure you show the lesion in respect to other areas around it. You can then bring this information to your appointment or send it to us electronically through a secure internet link. See the enclosed instructions in your packet for detailed directions.

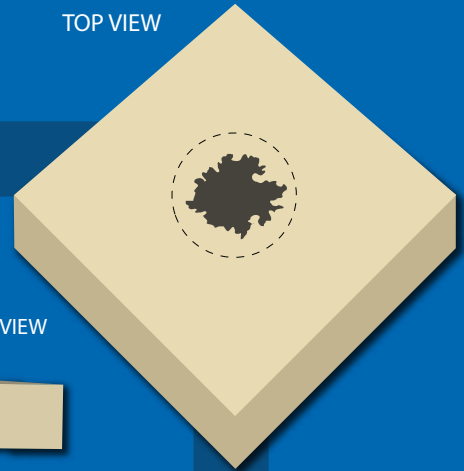
If you are not certain of the exact location of your skin cancer, please assist our office with this vital information. Prior to your appointment, contact your referring doctor and have them fax us a diagram or body map that indicates the biopsy site. If they took a photo, they can send it to us.

After locating and examining the biopsy site, Dr. Viehman will review with you the Mohs procedure and his initial impressions about your particular case. He will also answer any of your questions concerning skin cancer or surgery. You are encouraged to ask questions and be completely comfortable and informed about your visit to our office. This is our goal. At this time, we will have you sign the consent form for surgery, giving us permission to remove your skin cancer. Please review this form before your appointment.

# Mohs Surgery: The Process

**Step 1:** Skin cancers can form roots which extend beyond the visible portion of the tumor. If these microscopic roots are left behind, the skin cancer will recur. What is seen visually from the surface of the skin does not always represent what is present microscopically, like a “tip of the iceberg.”

TOP VIEW



SIDE VIEW

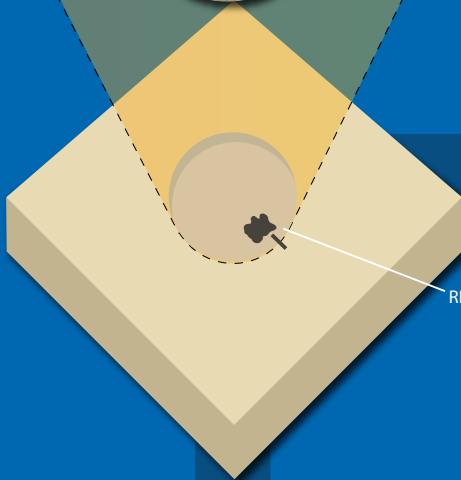
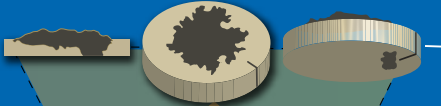


SIDE VIEW

TOP VIEW

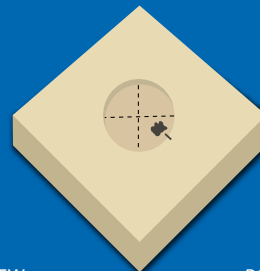
BOTTOM VIEW

ORIENTATION NICK



RESIDUAL TUMOR

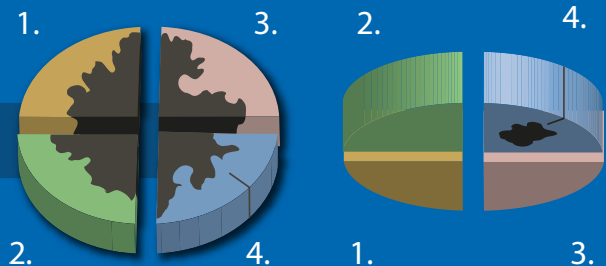
**Step 2:** The visible portion of the cancer is first removed in a thin “pancake-like” layer. Tumor was unknowingly left at the base of the surgical site. A small nick is placed in the specimen and the wound bed for orientation. A map of the surgical site is then drawn.

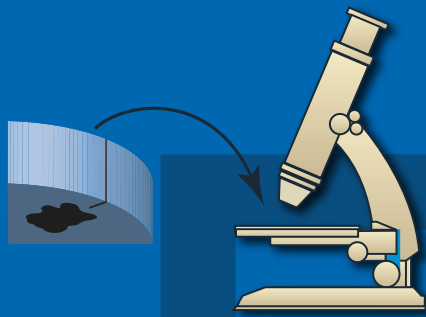


TOP VIEW

BOTTOM VIEW

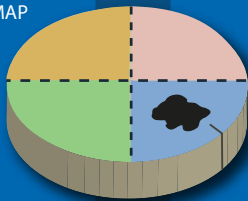
**Step 3:** The removed layer of skin is taken to the Mohs laboratory where it is color coded and sectioned for processing. The tissue sections are then stained and made into slides for the ACMS surgeon to review.





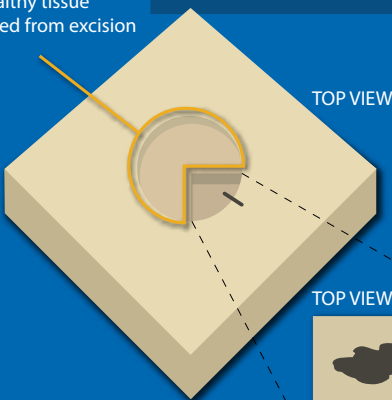
**Step 4:** Each of the 4 sections are microscopically examined for evidence of remaining cancer. All of the edges and undersurface are analyzed to ensure complete tumor removal. Sections 1, 2, and 3 are clear, but section 4 has a small focus of tumor at the base. This area is marked on the Mohs map.

MOHS MAP



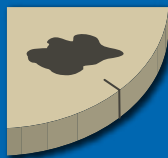
**Step 5:** The Mohs surgeon returns to the patient to remove another layer of skin. Using the Mohs map, surgery is now limited to precisely where the cancer cells remain. The rest of surgical site is left alone to conserve the maximum amount of normal tissue. The specimen then returns to the lab for processing and staining again.

Healthy tissue saved from excision

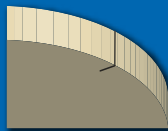


TOP VIEW

TOP VIEW



BOTTOM VIEW

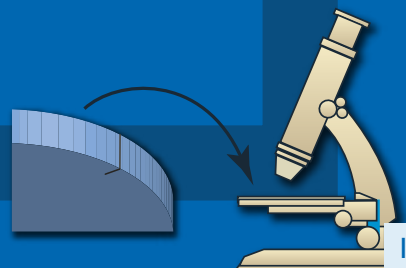


SIDE VIEW



Healthy tissue saved from excision

**Step 6:** The tumor in section 4 is not present on the bottom or the peripheral margins. Section 4 is now clear of cancer in the surgical margins, and the removal process is over. The surgical wound will now be evaluated for reconstruction options.



## **Surgery**

Your surgery will be performed in one of our comfortable state-of-the-art surgical suites, the same room where you will have your consultation. A nurse will numb the treatment area with local anesthesia using a very tiny needle. We take every precaution to minimize the discomfort of local anesthesia. Once the area is numb, your surgery will begin.

If you are having Mohs surgery, then you will cycle through the stages described earlier. Each removal phase of Mohs surgery only takes a few minutes. Most of the time you will be in the waiting room or resting in your treatment room. This will be approximately 20 minutes per layer, which is the time it takes to process the tissue in the lab and for Dr. Viehman to read the slides. After each stage of surgery, the nurse will stop local minor bleeding with an electric needle and apply a small bandage. Most patients require two to three stages before the cancer is completely removed. Please plan on being at our facility all morning or afternoon depending upon your surgery start time. We are conveniently located at Mayfaire Shopping Center should your family or friends want to go shopping or eat while they wait for you. You must remain in the office, however, for the duration of your surgery.

If you are having another form of surgery at our center, then you will not have to wait for slide processing like Mohs surgery. Laser and standard surgical patients have their treatment completed in one step. Melanoma patients may have a surgical removal performed the day of consultation and then their repair several days later. The tissue for melanoma needs to be analyzed and processed by a special skin pathology lab outside of our practice to ensure the highest quality of margin control.

## **What to Expect after Surgery**

Before you leave our office, a nurse will review post-operative instructions with you and your family. This includes medications, wound care, and follow-up visits. You will also receive written instructions. Any future appointments for suture removal or follow-up will also be scheduled at checkout.

### **Discomfort or Pain**

After your surgery, you can expect some discomfort from the surgical site. This is highly variable among patients and is also dependent upon the location of your surgery. Some areas are more sensitive than others. You may receive a prescription pain medication to help alleviate post-surgical discomfort. Always start with extra strength Tylenol first, if you can take Tylenol. Avoid any aspirin-containing products.

### **Swelling and Redness**

After surgery, you should expect some mild swelling and redness around the surgical site. Some areas of the body tend to swell more than others (around the eyes). In many cases, the swelling is a side effect of the numbing medication used during surgery. This is particularly common on the forehead. If you feel your swelling or redness is abnormal, please call our office. Redness that continues to spread can be a sign of infection or allergy to the ointment or tape used to care for your surgical site.

### **Fever**

A low-grade fever (99°F–101°F) is common for which any NON-ASPIRIN product may be used. Tylenol (acetaminophen) is recommended.

### **Drainage**

Mild drainage from the wound is common which may have a foul odor and be yellowish in color. This is especially common on the legs. The yellow drainage is NOT a sign of infection.

### **Bleeding**

Significant bleeding is unlikely but can occur. If you experience bleeding, then lie down and apply firm, constant pressure to the surgical site for a minimum of twenty minutes. If bleeding continues, repeat the pressure on the surgical wound for an additional twenty minutes. Do not “peek” during this period. If the bleeding persists, then please contact our office as early as possible during the day so that we may make arrangements for your evaluation. If you are unable to reach our office or one of our practitioners, then please proceed to the nearest emergency room for evaluation and assistance. Call 911 for severe problems.

### **Infection**

Infection after skin surgery is very rare. If you notice excessive drainage of foul-smelling material with pain and redness, then call our office immediately.

### **After the Wound Has Healed**

Surgical wounds take 9–12 months to fully mature. Although most stitches are removed in 1–2 weeks, the wound is still healing and remodeling on the inside for many months after the surgery. Common symptoms during this period include itching, tingling, minor shooting pain, and numbness. These symptoms almost always are short lived and resolve on their own.

### **Scarring**

Any time the skin is injured, a scar forms. The goal is to make the scar as unnoticeable as possible. Dr. Viehman has extensive training and experience in reconstructing wounds after surgery. We fully understand patients' concerns about scars. Some patients can have abnormal scarring that is biologic and not a result of the surgery itself. If you have a history of abnormal scarring, please inform us at the time of your visit. In some instances we perform a second procedure in a few months to smooth or “sand” the scar. This can help significantly with the cosmetic outcome, and is complimentary if needed. Scars also go through a phase of contraction and tightening before they relax, resulting in firmness or a “pulling” sensation. This occurs between two and six months after surgery.

## Follow-Up Visits after Surgery

Surgical patients that receive stitches will have a suture-removal visit in one to two weeks. If you live a long distance away, then you can likely have your sutures removed at home by a local doctor or nurse.

All patients will require close follow-up of their surgical sites for proper wound healing and signs of recurrence. Skin cancer patients should also have screening examinations for new cancers on a regular basis. This should be scheduled within four to six months with your referring doctor. Early detection and skin cancer prevention are essential for all skin cancer patients. Patients who have had at least one skin cancer are more likely to develop more in the future. If you don't have a local physician, we will assist you in finding one.

## Frequently Asked Questions

In an effort to completely educate our patients BEFORE they arrive, we have answered the most common questions we receive. Please let us know if you have additional questions or concerns not addressed in this booklet or on our website. Our web site has additional information on skin cancer and many links to national resources for skin cancer patients.

### **Q. How large will the defect be after the cancer is removed?**

A. Skin cancer is a microscopic process that is not visible to the naked eye. Very commonly, skin cancers have a “tip of the iceberg” growth pattern. What we can see on the outside is only a small fraction of a much larger process on the inside. A skin cancer that appears very small can actually be very large microscopically. For this reason, we cannot predict the size of any skin cancer in advance. On average, most cancers are 50–100% bigger than they appear to be once they are removed. Mohs surgery allows the surgeon to only remove what is absolutely necessary to cure the cancer. You can be assured your surgical defect will be as small as possible with Mohs surgery.

### **Q. How will my wound be repaired after the cancer is removed?**

A. Since we cannot predict the size of a skin cancer in advance, we also cannot determine the method of repair until the cancer has been completely removed. It is best to divide the surgery process into two phases. First is the removal phase when Mohs surgery is performed. After the skin cancer has been removed, Dr. Viehman will review the size of the surgical defect with you and discuss the second phase of the process: reconstruction.

There are several options for repairing a wound, and Dr. Viehman will review your options and help you decide which is the best for you. Fellowship-trained Mohs surgeons from the American College of Mohs Surgery have extensive training and experience in surgical reconstruction. Dr. Viehman has performed thousands of surgical repairs and does them every day.



**The Basic Choices Are:**

**Direct Closure** – The wound edges are brought directly together in a linear closure. Most surgical wounds are circular, and the surgeon must convert the circle to a line. This requires removing extra tissue at each end, which allows the closure to lie flat without puckering. The length of linear closures are longer than the original defect for this reason.

**Skin Flaps** – This method involves recruiting nearby tissue to cover the surgical wound. There are many different types and designs of skin flaps. Smoking has been shown to significantly decrease flap survival. We recommend you stop smoking two weeks before and after your surgery.

**Skin Grafts** – This method borrows “extra” skin from another part of the body to serve as a “patch” that covers the defect. This donor skin usually comes from the collarbone area or in front of the ear along natural creases. Skin grafts are useful for larger wounds and in areas where flaps and direct closures are not possible. Smoking has been shown to significantly decrease graft survival. We recommend you stop smoking two weeks before and after your surgery.

**Second Intention** – This is a medical term for allowing a wound to heal on its own without further surgery. In the right location, this can be the best option providing excellent cosmetic results. A bandage is worn for 6–12 weeks while the area heals.

**Referral** – Our office works with a variety of specialists should your cancer reconstruction require further expertise.

**Q. What will my scar look like and how long will it take to heal?**

A. There are two concerns that are critical to your healing after skin cancer surgery: proper function and an acceptable cosmetic outcome. Mohs surgeons are experts in determining the best method to repair your wound that maintains function while providing optimal cosmetic healing. We are very concerned about giving you the very best result from your skin cancer surgery.

Scarring, however, is unpredictable and different in various parts of the body. Some areas are known to heal very well while others are notoriously more likely to heal with thickened scars. Every patient also has their own biologic predisposition to wound healing that affects the outcome. SeaCoast Skin Surgery is determined to treat every outcome like it is their own. If your skin cancer does not heal properly, then there are many ways to improve the appearance by scar revision, laser “sanding,” and injections.

Sutures are removed in one to two weeks in most cases. Makeup can usually be worn shortly after suture removal. Over the next three to four weeks, mild swelling, redness, and tenderness will begin to subside substantially. Most wounds tend to tighten up or contract during the first three to six months before relaxing. Many of our repairs are sutured with “pleats” or raised edges along the suture line on purpose. As a scar contracts during this three-to four-month period, it will flatten the suture line.

Most wounds take nine to twelve months to completely mature and settle down into their permanent result. Often we will wait this period of time before intervening since there can be dramatic changes even after a scar is six months old.

**Q. How long until I can resume normal activity?**

A. After any type of surgery, it is a good idea to take it easy for at least one week. Patients can usually resume exercise and recreational activities in several weeks, but this is highly dependent upon the location and size of your skin cancer and reconstruction. We recommend you plan on several weeks of light activity.

# Pre-Operative Surgical Checklist

Please carefully review this checklist to ensure you are prepared for your visit to our office:

- Complete the New Patient History Form and bring it with you to our office.
- Read your consent form for surgery before you arrive.
- Please also visit our special New Patient Page on our web site for more information at: [seacoastskinsurgery.com](http://seacoastskinsurgery.com).
- Check your personal schedule to ensure you will be locally available for at least two weeks after your surgery for follow-up visits and suture removal. Do not plan travel, vacations, or important events near your surgery date. We can reschedule your appointment in advance if necessary.
- Make sure you know the exact location of your biopsy site. Email pictures to us or bring them to your appointment if you have them. If you are uncertain of the location, please see page 15 for further instructions.
- Continue taking all prescribed medicines including blood thinners. Stop taking aspirin at least two weeks before surgery if this was not prescribed by a physician. Call our office if you have any questions about your medications.
- Avoid alcohol, Vitamin E, and fish oil supplements one week before and after your surgery since they can increase bleeding.
- If you are a smoker, then stop smoking two weeks before and two weeks after surgery to optimize wound healing.
- Get a good night's sleep and unless advised otherwise eat a light breakfast before your appointment.
- Arrange to have someone drive you to our office and back home if you are having surgery.
- Notify our office in advance if you have an internal heart defibrillator.
- Arrive 20 minutes early for your appointment.
- Be prepared to stay at our office all morning or afternoon.

# Skin Cancer Detection and Prevention

SeaCoast Skin Surgery will not only treat your skin cancer, but also help you avoid developing skin cancers in the future. The two essentials are early detection of existing skin cancers and adequate protection from the sun.

## Early Skin Cancer Detection

When you come to our office, we will also examine the rest of your skin as indicated. If we see any suspicious areas, we will notify you and encourage you to schedule a follow-up appointment with your referring physician. We will send your referring doctor a specially designed letter with color digital photographs. You also need to be aware of the early signs of skin cancer. A rapid diagnosis means a smaller tumor.

Most commonly, skin cancers start as small bumps or patches of skin that slowly increase in size. They often will bleed and then seem to heal before repeating this cycle again. Any skin lesion that bleeds should be examined for a possible skin biopsy. Melanomas will most commonly increase in size, change colors, and itch. Skin cancers can be scaling, smooth, or firm. In many cases, you can't tell by looking at the lesion and a skin biopsy is indicated. A skin biopsy removes a small piece of skin to be examined by a pathologist who can diagnose skin cancer. Skin biopsies are accurate, small, quick, easy, and the best way to be certain of a diagnosis.

Actinic Keratoses are precancerous small rough papules on the sun-exposed areas of face, neck, scalp, and arms. Left untreated they can progress to invasive skin cancers. Treating these premalignant lesions with your referring doctor is an essential part of skin-health maintenance.

## Skin Cancer Prevention

Sun exposure is the most preventable risk factor for all types of skin cancer. The American Academy of Dermatology has recommended these seven steps to reduce the risk of skin cancer:

- Generously apply a water-resistant sunscreen with a Sun Protection Factor (SPF) of at least 30 that provides broad-spectrum protection from both ultraviolet A (UVA) and ultraviolet B (UVB) rays. Reapply every two hours, even on cloudy days, and after swimming or sweating.
- Wear protective clothing, such as a long-sleeved shirt, pants, a wide-brimmed hat, and sunglasses.
- Seek the shade. Remember, the sun's rays are strongest between 10 a. m. and 4 p. m. Use umbrellas at the pool and beach.
- Protect children from sun exposure by playing in the shade, using protective clothing, and applying sunscreen. Remember, 80% of your lifetime sun exposure occurs before the age of 18. Do not use sunscreen on children under six months of age.
- Use extra caution near water, snow, and sand. These areas reflect the damaging rays of the sun, which can increase sun damage.
- Get vitamin D safely through a healthy diet that may include vitamin supplements. Don't seek the sun.
- Avoid tanning beds. Ultraviolet light from tanning beds and sun lamps can cause skin cancer and wrinkling.

# Office Policies and Procedures

## Office Hours and Appointments

Monday, Tuesday, Thursday: 7:30 a. m. – 5:00 p. m. Wednesday and Friday: 7:30 a. m. – 1:00 p. m. Appointments are made on a referral basis. Please provide our office at least 48 hours notice if you need to cancel your appointment.

## After-hours Calls

If you are having a problem or have questions that can't wait until the next business day, call 910-256-2100 and follow the instructions for reaching our on-call practitioner. Surgical patients will be given the cell phone number of one of our practitioners on the business card provided in your post-surgical care packet.

## Smoking

Our facility is smoke free, inside and out. Thank you for cooperating with our policy.

## Financial Policy

Payment is required at the time of service. Our billing staff can assist you with any questions you have about our fees or insurance. We accept Visa, MasterCard, Discover, American Express, and CareCredit for your convenience.

## Insurance Plans

### HMO, PPO, and Group Plans

SeaCoast Skin Surgery has contracts with most of the major health insurance companies for your convenience. If we have a contract with your insurance carrier, we will file your claim. You are responsible at the time of service for any co-pay, deductible, % responsibility, or payment for non-covered services. If our office does not participate in your health insurance plan, payment is expected at the time of service.

### Medicare

If you have a Medicare supplement or secondary insurance plan, we will file with your insurance on your behalf. All insurance policies are reviewed prior to your visit and any portion that is deemed as patient responsibility will be collected on the day of service. Patients without a supplement will be responsible for 20% of the Medicare allowed fee at the time of service along with any unmet deductible.

# Directions

See map on the back cover.

## From North

Follow US-17 South towards Wilmington. Exit right onto US-17 S Business/Wilmington. Go 3.7 miles and turn left at Milesitary Cutoff Rd (sign says "76 Wrightsville Beach"). Go 1.2 miles and turn right into Howe Creek Landing.

## From South

1. Follow US-17 North towards Wilmington. Merge right and follow signs onto US-17 N/US-74 E/US-76 E and drive 2.6 miles.

2. Merge right and follow signs onto US-17 N/74 E/ US-421 N/ NC-133 N. Drive 1.7 miles. You will pass the Battleship Memorial and go over a bridge. Turn right at sign for Wrightsville Beach US-74 E/NC-133 N. Go over bridge and merge right onto Martin Luther King Jr Pkwy US-74 E/ NC-133 N via the ramp to Wrightsville Beach/ Burgaw/ Airport. Continue to follow Martin Luther King Jr Pkwy/US-74 E for 5.1 miles. Turn left at Market St and drive 2.0 miles. Turn right at Gordon Rd. Turn right at Milesitary Cutoff Rd. Drive 0.9 miles and turn right into Howe Creek Landing.

## From West

Follow I-40 East towards Wilmington. Exit right at exit #420 (I17N/I32N). Turn right onto Gordon Rd. Drive 2.5 miles until Gordon Rd ends at Milesitary Cutoff Road. Turn right and drive 0.9 miles. Turn right into Howe Creek Landing.

## From Lumberton

Follow US-74 East for approximately 73.0 miles to Wilmington area. Follow directions for South starting at #2.

## From Fayetteville via I-95

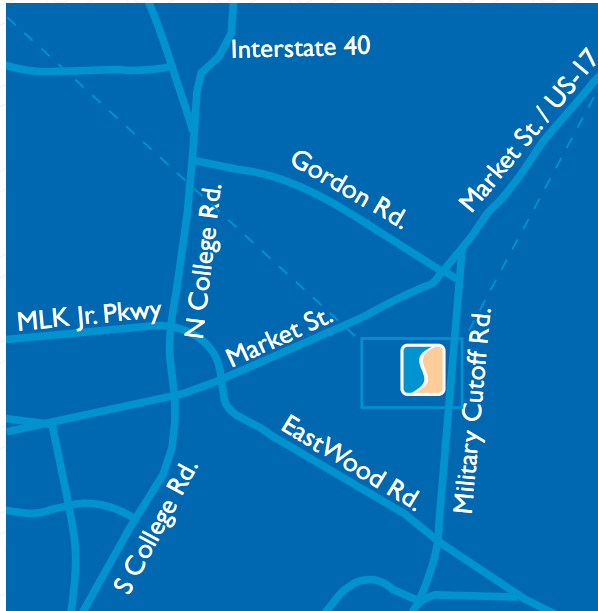
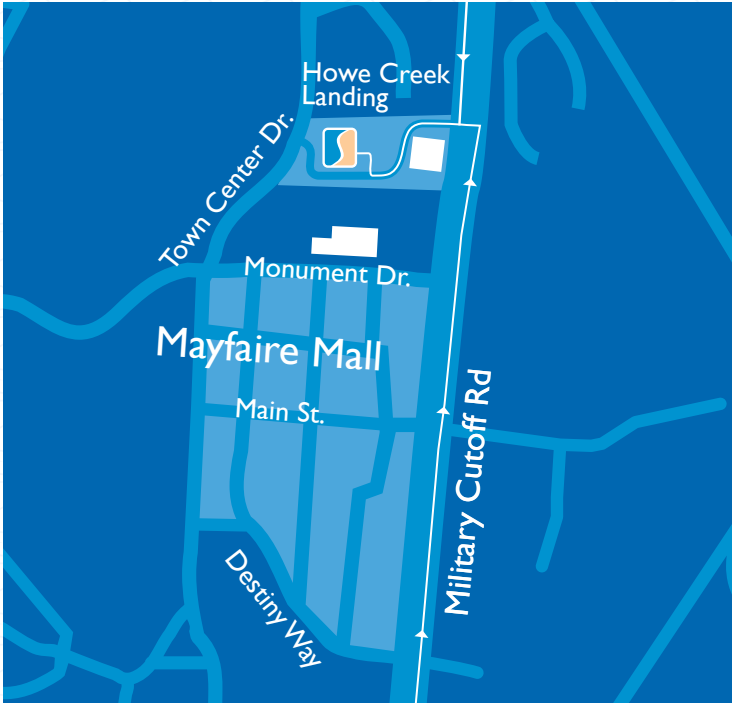
Follow I-95 North 18.6 miles. Take exit 73 toward US-421/NC-55 and merge onto Access Rd. Continue on NC-55 East for 13.6 miles. Turn right to merge onto I-40 East. Follow directions from East.

## From Fayetteville via NC-24

Follow NC-24 East to Clinton (32.9 miles). Turn right to merge onto NC-24 E/US-421 S/US-701 S. In 2.0 miles turn left at US-701. Drive 0.4 miles and turn right at NC-24 East. Drive 10.1 miles to I-40 East. Follow directions from East.

## From Goldsboro

Turn left at Dr Martin Luther King Jr Expy/NC-581 S/US-117-BYP S/US-13 S. Continue to follow US-117 South to I-40 connector. Exit onto I-40 East and follow directions from East.



See directions on the inside of back cover.



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