

## Skin Cancers

### Basal Cell Carcinoma

#### What is basal cell carcinoma?

Basal cell carcinoma is the most common form of cancer worldwide. In the vast majority of cases, it is thought to be caused by exposure to the harmful ultraviolet rays of the sun. It is becoming more common, perhaps because people may be spending more time outdoors. Some believe that the decrease in the ozone layer is allowing more ultraviolet radiation from the sun to reach the earth's surface. Basal cell cancer does not usually metastasize or travel in the bloodstream; rather it infiltrates the surrounding area destroying tissue. For this reason, basal cell cancer should be treated promptly by your dermatologist with dermatologic surgical techniques.

#### What does basal cell cancer look like?

Basal cell cancer most often appears on sun-exposed areas such as the face, scalp, ears, chest, back and legs. These tumors can have several different forms. The most common appearance of basal cell cancer is that of a small dome-shaped bump that has a pearly white color. Blood vessels may be seen on the surface. Basal cell cancer can also appear as a pimple-like growth that heals, only to come back again and again. A less common form called morpheaform, looks like a smooth white or yellowish waxy scar. A very common sign of basal cell cancer is a sore that bleeds, heals up, only to recur again.



Basal cell carcinoma

If you have a sore that doesn't heal or that looks like any of the growths pictured here, you should call healthcare professionals at **Premiere Dermatology and Surgery** to make an appointment for evaluation. After examining the growth, our provider will decide whether or not to perform a biopsy. A biopsy is a simple procedure done in the office under local anesthesia.

The biopsy results will indicate whether you have a basal cell cancer and what kind of basal cell cancer it is. At this point, we will consult with you on the best therapeutic and cosmetically acceptable means of curing the lesion.

**Dr. Boutte'** and her staff possess extensive training in multiple therapeutic approaches to all types of skin cancers. Please be sure to check our website frequently for upcoming free cancer screenings. These are usually hosted twice a year here at **Premiere Dermatology and Surgery**. We strongly believe that "prevention is the best medicine".

## **Squamous Cell Carcinoma**

Squamous cell carcinoma is the second most common cancer of the skin. More than 250,000 new squamous cell carcinomas are diagnosed every year in the United States. Middle-aged and elderly people, especially those with fair complexions and frequent sun exposure, are most likely to be affected.

The cancer develops in the outer layer of the skin. Some squamous cell carcinomas arise from small sandpaper-like lesions called solar (sun) or actinic keratosis. It is possible for squamous cell carcinoma to spread to other areas of the body; therefore, early treatment is important.

### **What does squamous cell carcinoma look like and where does it appear?**

Squamous cell carcinomas usually appear as crusted or scaly patches on the skin with a red, inflamed base, a growing tumor or a non-healing ulcer. They are generally found in sun-exposed areas like the face, neck, arms, scalp, backs of the hands and ears. The cancer also can occur on the lips, inside the mouth, on the genitalia or anywhere on the body. Any lesion, especially those that do not heal, grow, bleed or change in appearance, should be evaluated by a dermatologist.



Squamous cell carcinoma

### **What are the factors that cause squamous cell carcinoma?**

Ultraviolet light exposure (from the sun or indoor tanning devices) greatly increases the chance of developing skin cancer. Although anyone can get squamous cell carcinoma, people with light skin who sunburn easily are at the highest risk. The chance of developing skin cancer increases with age and a history of severe sunburns as a child. Many less common skin conditions organ transplantation, chronic skin ulcers, prior x-ray treatment (e.g., for acne in the 1950s), arsenic ingestion, smoking and toxic exposure to tars and oils can predispose individuals to the development of squamous cell carcinoma.

### **Can squamous cell carcinoma be prevented?**

Ultraviolet light avoidance is the primary form of prevention and is important at all ages. Indoor tanning devices should be avoided. Seek shade when appropriate remembering that the sun's rays are strongest between 10:00 a.m. and 4:00 p.m. Wide-brimmed hats and sunglasses should be worn along with other protective clothing (long-sleeved shirts and long pants). Broad-spectrum (blocks both ultraviolet A [UVA] and ultraviolet B [UVB] rays) sunscreens with a Sun Protection Factor (SPF) of 15 or higher should be applied generously even for brief periods of sun exposure and reapplied every two hours.

### **I think I might have squamous cell carcinoma. What should I do next?**

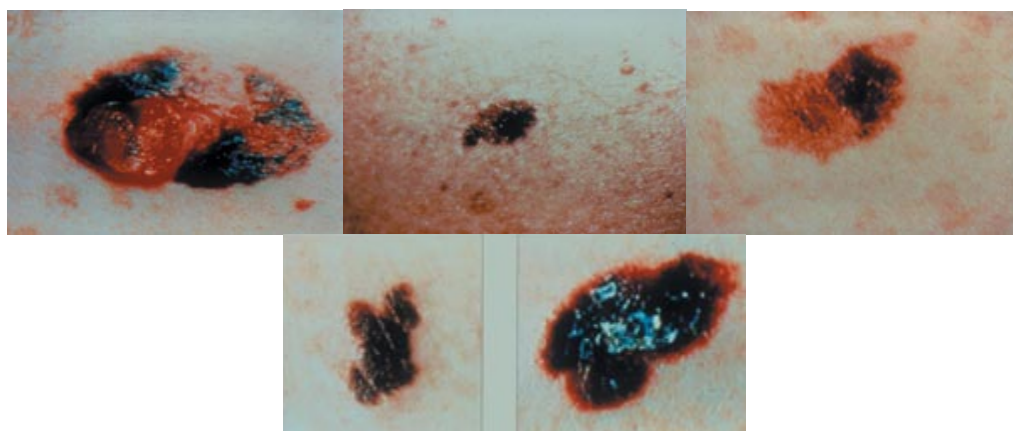
Squamous cell carcinoma is usually locally destructive. If left untreated, it can destroy much of the tissue surrounding the tumor and may result in the loss of a nose or ear, for example. Aggressive types of squamous cell carcinomas, especially those on the lips and ears or untreated cancers, can spread to the lymph nodes and other organs resulting in approximately 2,500 deaths each year in the United States. If you suspect you might have squamous cell carcinoma, it is imperative that you make an appointment with your dermatologist as soon as possible for evaluation. People who have had skin cancer must have frequent follow-up appointments. An annual skin examination is recommended for everyone.

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### **Malignant Melanoma**

Melanoma is a cancer of the pigment producing cells in the skin, known as melanocytes. Cancer is a condition in which one type of cell grows without limit in a disorganized fashion, disrupting and replacing normal tissues and their functions, much like weeds overgrowing a garden. Normal melanocytes reside in the outer layer of the skin and produce a brown pigment called melanin, which is responsible for skin color. Melanoma occurs when melanocytes become cancerous, grow and invade other tissues.

Melanoma begins on the surface of the skin where it is easy to see and treat. If given time to grow, melanoma can grow down into the skin, ultimately reaching the blood and lymphatic vessels and spread around the body (metastasize), causing life-threatening illness. It is curable when detected early but can be fatal if allowed to progress and spread. The goal is to detect melanoma early when it is still on the surface of the skin.



Melanoma

### **What causes it?**

It is not certain how all cases of melanoma develop. However, it is clear that excessive sun exposure, especially severe blistering sunburns early in life, can promote melanoma development. There is evidence that ultraviolet radiation used in indoor tanning equipment may cause melanoma. The risk for developing melanoma may also be inherited.

## What are the risk factors?

Anyone can get melanoma but fair-skinned, sun-sensitive people are at a higher risk. Since ultraviolet radiation from the sun is a major culprit, people who tan poorly or burn easily are at the greatest risk. In addition to excessive sun exposure throughout life, people with many moles are at an increased risk to develop melanoma. The following factors help to identify those at risk for melanoma:

- Fair skin
- A history of sunburns
- More than 50 moles
- Atypical moles
- Close relatives who have had melanoma

Anyone can develop melanoma but people with one or more of the risk factors are more likely to do so. Periodic skin examinations by a dermatologist can truly be life-saving.

## What does melanoma look like?

Melanoma can occur anywhere on the skin or the nails, even in places not directly exposed to the sun like the eyes, mucous membranes (mouth and genitals) or internal organs. It is most common on the backs of men and legs of women. Melanoma is usually brown or black in color but sometimes, though rare, may be red, skin-colored or white. It can arise from a pre-existing mole or appear on previously normal skin. Melanomas grow slowly; therefore, growing, changing or irregular lesions should arouse suspicion. When looking at a spot on the skin it is helpful to apply the ABCD rules:

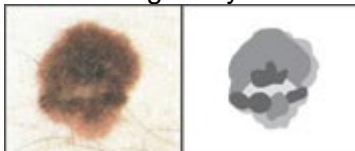


### The ABCDs of Melanoma

**Asymmetry** - Meaning one half is different than another. Draw an imaginary line through the middle of the lesion, either up-and-down or side-to-side. Are the two sides the same size and shape (symmetric)? Melanomas are usually asymmetric.



**Border Irregularity** - The edge or border of melanomas are usually ragged, notched or blurred.



**Color** - Benign moles can be any color but a single mole will be only one color. Melanoma often has a variety of hues and colors within the same lesion.



**Diameter** - Melanomas continue to grow, while moles remain small. Is the lesion larger than a pencil eraser (6mm)?

### **I have moles that might be suspicious. What should I do next?**

Early detection remains the best treatment. Therefore, skin self-examinations should be performed monthly, looking for irregular lesions that are growing and changing. Remember to use the ABCD rules and visit **Premiere Dermatology and Surgery** periodically for a complete skin examination. If a mole is noticeably changing, make an appointment to see our healthcare providers immediately.

A quick look from our providers can confirm whether a lesion is suspicious for melanoma. If so, the next step is to perform a biopsy. This simple, quick procedure is performed in the office. If a melanoma is detected, treatment is guided by how deep the melanoma penetrates the skin.

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### **Cutaneous T-Cell Lymphoma**

Cutaneous T-Cell lymphoma (CTCL) is a type of cancer of the T-lymphocytes (white blood cells) that affects the skin and the blood. Occasionally, it also involves the lymph nodes and internal organs.

The malignant T-Cells are attracted to the skin and can appear anywhere on the body surface. If it is mild, there will only be a rash, but if it is more severe, thick lesions called tumors can form. In some instances the skin becomes red all over.

### **What is the progression of CTCL?**

The course of CTCL is unpredictable. Some patients progress slowly, rapidly, or not at all. Most patients will only experience skin symptoms without serious complications. About 10% of people diagnosed with CTCL will experience a progression with lymph node, internal involvement, or serious complications. Most patients live normal lives while they treat their disease, and some are able to remain in remission for long periods of time.



**A 70-year-old man presented with a**

**strikingly digitate pattern of non-atrophic patch stage lesions on his flank.**



**A 24-year-old presented with marked hyperkeratosis of the palms. Despite the thickened skin, the histology was non-atrophic patch stage.**

### **Is there a cure?**

While there is no cure, research is ongoing. Patients diagnosed early (disease involving less than 10% of the body) will live a normal life expectancy. If you have symptoms, it is best to see your dermatologist.

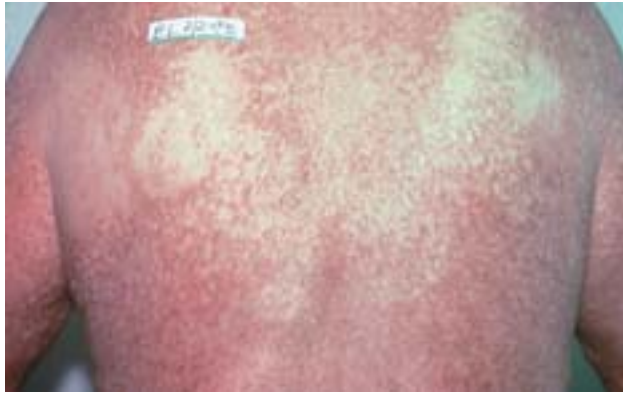
### **Causes of CTCL**

CTCL is a rare disease - five to ten persons per million are affected. The cause of CTCL remains unknown, but research continues. CTCL is not contagious and is not inherited. Men are affected more than women, and it is more common after the age of 50.

### **Types of CTCL**

There are many types of CTCL which differ in appearance, progression, and treatment. The two main types are mycosis fungoides and Sézary syndrome.

**Mycosis Fungoides** - is the most common type of CTCL that primarily affects the skin. Generally it has a slow course and often remains confined to the skin. Mycosis fungoides has three phases: patch, plaque, and tumor. The patient may have one or all of these phases which can appear anywhere on the skin. Patches are usually flat, red, and scaly. They are often mistaken for eczema or dermatitis because often patients will complain of itching. Plaques are thicker raised lesions. Tumors are larger lesions that can ulcerate and can become huge and mushroom shaped (fungoides). The disease is NOT a fungal infection.



**A 73-year-old man presented with extensive atrophic patch stage lesions.**



**A 61-year-old woman presented with this plaque stage lesions on her face.**



**Tumor on scalp of 43-year-old man.**

**Sézary Syndrome** - is the advanced form of mycosis fungoides and affects the blood. It consists of red skin, a large number of tumor cells found in the blood (leukemia), and larger than normal lymph nodes. Often referred to as the "red-man disease," patients with Sézary syndrome often are red from head to toe and complain that their skin is hot, sore, and itchy. There may be intense skin flaking; itching and burning of the skin; loss of hair; thickening of the palms, fingernails, and soles; drooping eyelids; loss of eyelashes; and difficulty closing the eyes.

## **Diagnosis**

CTCL is not an easy disease to diagnose. It may take years to make a diagnosis. Dermatologists diagnose CTCL from the patient's medical history, performing a physical examination, and obtaining blood tests and skin biopsies. Many skin biopsies may be needed in order to make the correct diagnosis.



**This 66-year-old woman presented with a total body erythrodermy. She was classified as having Sézary syndrome because of the atypical lymphocytes.**

### **Treatment**

The goal of treatment is to control symptoms such as itching and burning, and to make the patches and skin tumors go away. In Sézary syndrome, treatment reduces skin redness and reduces the number of abnormal lymphocytes in the blood.

Treatment is based on the type of CTCL, patient's health, extent of disease, age, and lifestyle. Different treatments include: application of creams and ointments to the skin, oral medication, light therapies (phototherapy), interferon injections, and radiation. Different types of biological therapies which use the body's own immune system to fight the cancer are being tested in clinical trials.

### **Topicals**

Cortisone (Corticosteroid) Cream - Cortisone is a drug that reduces inflammation. Cortisone creams, ointments, gels, and lotions temporarily control skin inflammation in many patients with CTCL. Generally, lower strength cortisone preparations are used on sensitive areas of the body such as the groin, armpits, and face. Stronger preparations are usually needed to control affected skin elsewhere on the body.

Side effects of the stronger cortisone preparations include: thinning of the skin, dilated blood vessels, bruising, and skin color changes. If creams are stopped too quickly the disease may get worse. CTCL may become resistant to cortisone creams with time.

Nitrogen Mustard Ointment and Liquid - Nitrogen mustard ointment and liquid is a type of topical chemotherapy that may clear the skin temporarily and control CTCL. Patients use gloves to apply nitrogen mustard once daily. The face, groin, and armpits are sensitive; patients should ask their dermatologist whether these areas should be avoided.

A possible side effect may be an allergic reaction to nitrogen mustard, which involves skin irritation.

Retinoids (Gel) - Also known as bexarotene, retinoids are derivatives of vitamin-A. Bexarotene, can be used as a gel or taken orally. Bexarotene gel was approved by the FDA in 2000 for patients with early-stage CTCL. When applied to the skin, it acts by interfering with the growth of cells of the tumor.

Side effects of taking bexarotene gel may be skin rash, redness, and itching.

## **Oral**

**Corticosteroids** - This is a group of drugs that have powerful anti-inflammatory properties. Corticosteroids (prednisone) is common, and is usually used only in severe cases of CTCL. It can be used alone or in combination with other treatments to control CTCL.

Side effects from taking corticosteroids over a long period of time include weight gain, development of round face, increased blood sugar levels (diabetes), and thinning of the bones. A dermatologist will watch for side effects.

**Retinoids (Capsule)** - The oral form of bexarotene gained FDA approval in 1999 for patients with advanced-stage CTCL, or for patients who have not responded well to other therapies. The capsule acts on selecting cancerous T-Cells and causing apoptosis (cell death). The capsules are taken every day and are easily tolerated.

Side effects may include an allergic reaction, headaches, fatigue, weakness, swelling, rash, dry skin, nausea, elevation of the blood fat called triglycerides and cholesterol, decreased thyroid function, and changes in liver function. The dermatologist will monitor you with regular blood tests for side effects. Medication may be needed to control high fat levels in the blood.

**Methotrexate** - This is an oral anticancer drug that is used to control CTCL. Side effects include upset stomach, nausea, mouth ulcers, and dizziness. Liver function is monitored as well.

## Systemic Chemotherapy

These medications kill cancer cells intravenously. Chemotherapy given in this way is called systemic treatment because the drug enters the bloodstream and travels through the body killing cancer cells. Many different types of drugs are used for systemic chemotherapy.

**Fusion Protein** - Is an immune system called interleukin-2 that is fused with a toxin (diphtheria). Fusion protein works by seeking and attaching to receptors for IL-2 found on malignant T-Cells. This allows the toxin to be taken inside and kills the malignant T-Cells. Fusion protein has been approved for recurrent CTCL patients in all stages of the disease.

Side effects of chemotherapy depend on the type of drug being used.

## **Light Therapies**

**Ultraviolet Light B (UVB) or Narrow-Band UVB Ultraviolet Light** - slows the rapid growth of skin cells and is safe and effective under a doctor's care. Light boxes with full-body exposure are used to deliver ultraviolet rays that can treat CTCL.

**PUVA** - The name "PUVA" stands for "psoralen," (the drug), and the term "UVA," the specific type of ultraviolet light. After psoralen pills are taken, a carefully measured amount of UVA light is delivered to the patient in a light box. Treatments are usually three times a week and it may take several months

of treatment until there is improvement. The frequency of PUVA treatments may be decreased and a maintenance regime will start when the patient is clear. Psoralen temporarily remains in the lens of the eye, therefore, patients must wear UVA blocking sunglasses on the days of treatment.

**Extracorporeal Photopheresis (ECP)** - The term "extracorporeal" means "outside the body" and "photopheresis" comes from the Greek words "photo" meaning "light" and "aphairesis" meaning "removal." During treatment, blood is taken from a vein and circulated through a machine where it is sensitized with psoralen, then exposed to ultraviolet light and returned to the body. This process causes selective destruction of the cancerous cells in the blood. To receive treatment, patients usually visit a medical center for two days once a month.

Side effects of all light therapies include burning of the skin (like a sunburn), premature aging, freckling, and skin cancer.

### **Radiation Therapy**

X-ray Therapy - Spot radiation is sometimes used to focus on the affected area in the skin in an effort to kill cancerous cells. Another type of radiation is directed at the whole body called total body irradiation or TSEB (total skin electron beam).

Side effects of radiation therapy include inflammation of the skin, hair and nail loss, and lack of energy.

Interferon - This medication is used to control tumor growth. It is given by injection under the skin three to five times a week. Injections can be given by the patients themselves, a person at home, or by a dermatologist.

Side effects include: flu-like symptoms and fatigue or lack of energy. Side effects usually disappear when the drug is discontinued.