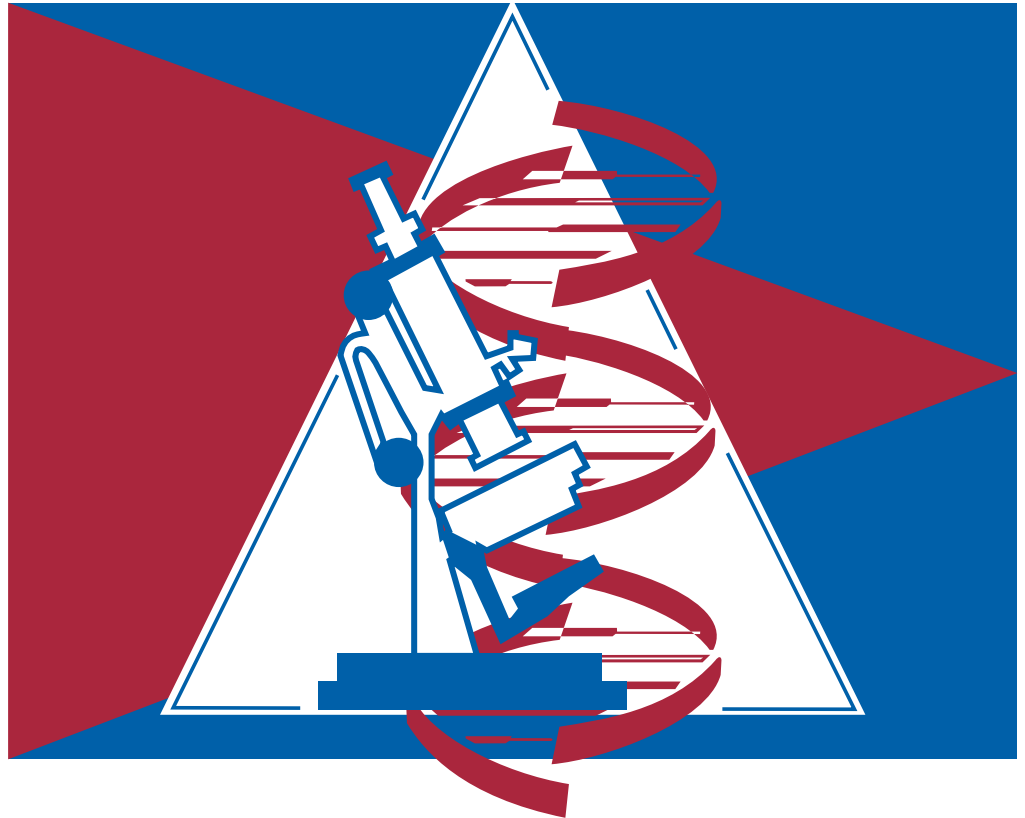


Diagnostic Cytology, Histology and Molecular Pathology

# OncoDiagnostic Laboratory, Inc.

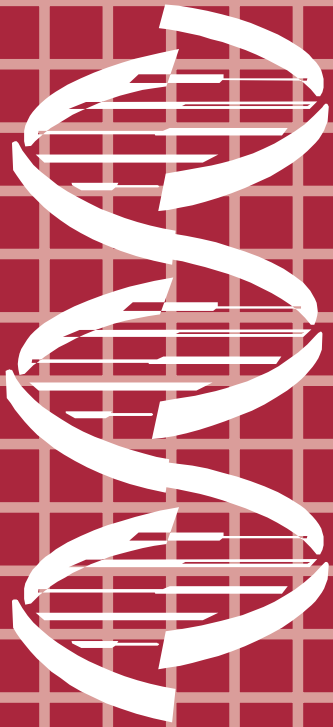
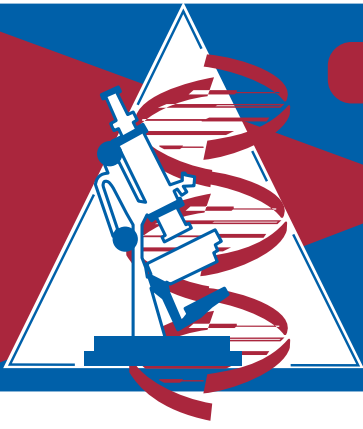


**Squamous cell carcinoma is the second most common skin cancer in the United States**

## **FYI Squamous Cell Carcinoma**

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## Symptoms and Diagnosis



**With over 250,000 cases and almost 2,000 deaths each year squamous cell carcinoma is the second most common skin cancer in the United States**

### What Is Squamous Cell Carcinoma?

Squamous cells are small, flat skin cells normally found in the upper portion of the outermost layer of skin. When squamous cells become cancerous, they usually develop into small, nodular or flat skin tumors, sometimes surrounded by an area of inflammation.

Most cases of squamous cell carcinoma are caused by unprotected, long-term exposure to the sun. They most often occur on the sun-exposed skin of people who spend a great deal of time outdoors (especially those with fair complexions and blue eyes). Sometimes, this cancer develops within a scaly patch of sun-damaged skin called actinic keratosis, which has a pink, yellow or brownish tint.

Although most cases of squamous cell carcinoma are sun-related, a smaller number develop with skin exposed to injury or to cancer-causing agents.

Most squamous cell carcinomas cause only a limited, well-localized area of skin damage. This area is usually on a sun-exposed portion of the head or hand. In a small percent of cases the cancer is more aggressive and spreads to the lymph nodes and other parts of the body. The risk of cancer spreading is higher with squamous cell carcinoma of the lips and ears, as well as those on the penis, scrotum or vulva (female genital area).

With over 250,000 cases and almost 2,000 deaths each year squamous cell carcinoma is the second most common skin cancer in the United States. From the early 1980s, the number of cases has risen significantly (at a rate of almost ten (10) percent per year. Those people having weakened immune systems are at very high risk of developing squamous cell cancer. This includes people who are HIV-positive, or have received transplants or take immune-suppressing drugs.

### What Are The Common Symptoms?

Squamous cell skin carcinoma most often appears as a tiny, painless nodule or patch that may be surrounded by an area of inflammation. The surface of the nodule may be scaly, crusted or wart-like, and its center may form an open sore.

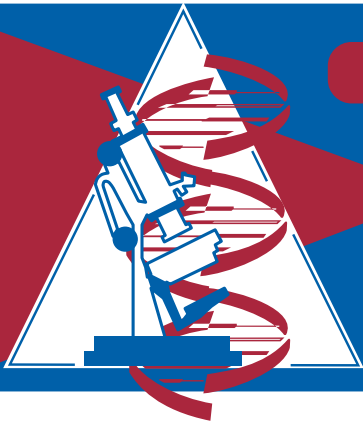
Although squamous cell carcinoma can develop on almost any part of the body, including the genitals and the soles of the feet, the most common locations are the head (including the scalp, lips, ears, and inside of the mouth) or the back of the hands or the arms.

### When Should I Call My Medical Professional?

Call your primary care doctor or a dermatologist (a specialist in skin problems and diseases) if you notice that you have an abnormal nodule or patch anywhere on your skin, or if you have a skin sore that does not heal properly.

If you develop a persistent area of abnormal surface inside your mouth, consult your doctor or dentist as soon as possible, especially if you have a history of using tobacco products.

# Disease Prevention



## How Is This Disease Diagnosed?

Your doctor may confirm the diagnosis by examining your skin and performing a biopsy. He or she may excise (shave away) only a small piece of abnormal skin to serve as the biopsy sample. Occasionally, the doctor will simply remove the entire abnormal area and send it to the laboratory for examination under a microscope.

In the laboratory, a pathologist will examine the biopsy specimen and assign a grade or stage for the cancer, based on a scale of 1 to 4. This grade takes into account the number of abnormal cells, their appearance and how deeply the cancer has invaded the skin and underlying soft tissue. In general, the higher the grade or stage of a squamous cell carcinoma, the greater are its chances for spreading.

If the results of your biopsy suggest a high risk for metastatic cancer, further tests are needed to check for cancer spread to your lymph nodes and elsewhere.

If you need a biopsy, you may want to ask your doctor the following questions:

1. How long will the biopsy take and what after effects can I expect?
2. Can a biopsy remove the entire lesion? If not, what is the curative procedure?
3. When will I know the test results from the laboratory?

## What Is The Expected Duration Of This Disease?

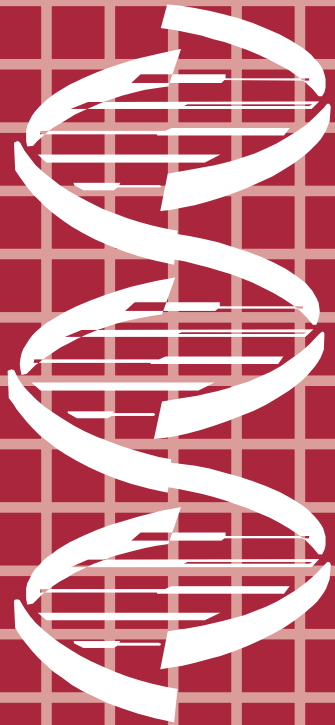
A squamous cell carcinoma develops on the skin and usually grows slowly. If a squamous cell carcinoma is neglected (undetected) and allowed to reach a diameter of more than three-quarters of an inch, it has triple the chance of spreading compared to a smaller cancer.

## What Can Be Done for Disease Prevention?

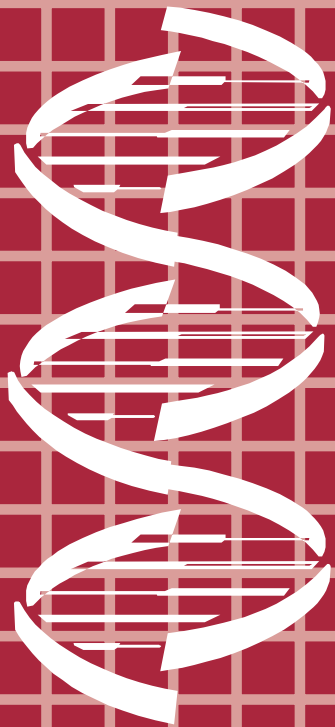
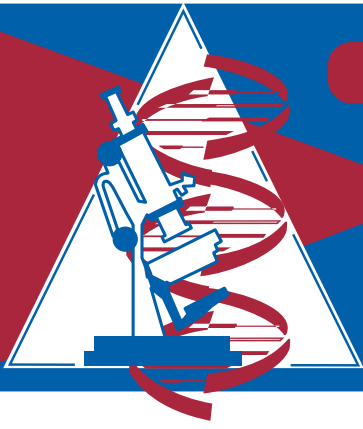
Squamous cell carcinoma results from unprotected exposure to sunlight. The following several steps can help you to prevent this cancer:

- Use sunscreen before you go outside. Use a sunscreen with sun protection factor of 15 or above, and with a broad spectrum of protection against both ultraviolet A and ultraviolet B rays.
- Place a sun block on your lips. Use a product that has been made especially for the lips, and with a sun protection factor of 20 or more.
- Limit your time outdoors when the sun is at its peak - from about 10 a.m. to 3 p.m.
- Wear sunglasses with ultraviolet light protection
- Wear long pants, a shirt with long sleeves and a hat with a wide brim to protect the face, nose, ears and neck
- Certain drugs and skin care products may increase your risk for ultraviolet damage. These include:

**If you need a tissue biopsy your physician will send the sample to a pathology laboratory**



## Treatment Options



**Ninty-five (95%) percent to 98% of squamous cell carcinomas can be cured if treated early enough and have not spread.**

- certain antibiotics,
- drugs used to treat psychiatric illness,
- high blood pressure medications,
- heart failure drugs,
- acne medications, and
- allergy drugs.

If you are taking prescription medications, and you spend significant time outdoors, ask your doctor if you need to take precautions to avoid sun exposure. You should also be aware that certain nonprescription skin care products contain alpha-hydroxy acids that can make your skin more vulnerable to sunlight damage.

To help prevent squamous cell carcinoma of the lips and mouth, avoid using alcohol, cigarettes, pipes, cigars and chewing tobacco (“smokeless” tobacco).

You can limit the area of damage of squamous cell carcinoma by detecting the problem early. Make it a routine to examine your entire skin surface thoroughly every one to two months. Use a mirror to check for skin abnormalities on less visible areas of your back, shoulders, upper arms, buttocks and the soles of your feet.

### What Are My Treatment Options?

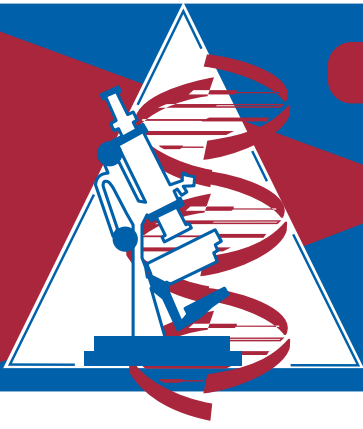
If squamous cell carcinoma has not spread there are many surgical and non-surgical ways to treat it. These include:

- **Excision** — cutting away all visible cancer along with a 3 to 10-millimeter margin of healthy tissue, then stitching the skin closed with sutures. If a large amount of skin has to be removed, a skin graft may be needed.
- **Curettage and electrodesiccation** — scraping away all visible cancer, followed by an electric probe to kill any remaining microscopic malignant skin cells.
- **Cryosurgery** — for very small tumors, freezing and killing the cancerous cells with liquid nitrogen.
- **Radiation** — high-energy rays aimed from outside the body destroy the cancer.
- **Moh’s micrographic surgery** — the most common treatment for squamous cell cancers on the eyelids, nose, fingers and other areas is by shaving away the tumor in thin layers and then checking one layer at a time under the microscope. This helps preserve as much healthy skin as possible while ensuring that all of the cancer is removed.
- **Other treatments** — topical fluorouracil (an anticancer drug applied directly to the skin), laser therapy (using a strong, narrow beam of light to destroy the cancer) and interferon alfa injected directly into the tumor.

The most effective treatment depends on many factors, including:

- the size and location of the cancer,

## Additional Information



- whether it has returned after previous treatment,
- your age and
- your overall general health.

Once your treatment is finished and your cancer is removed, your doctor will schedule follow-up skin examinations for you every three months for a few years, then every six months thereafter.

### What Is My Prognosis With This Disease?

In the majority of cases, the prognosis is excellent. Ninety five (95%) percent to 98 % of squamous cell carcinomas can be cured if treated early enough and have not spread. This is very true for the cancers located on the sun-exposed skin surfaces, since the risk for spreading is usually very low.

If the squamous cell carcinoma has spread, the prognosis is much worse. The five (5) year survival rate for squamous cell carcinoma that has spread is less than 50 percent, even with aggressive cancer therapy.

### Additional Information for Squamous Cell Carcinoma Patients

#### National Cancer Institute (NCI)

Building 31, Room 10A03  
31 Center Drive, MSC 2580  
Bethesda, MD 20892-2580  
Toll-free: (800) 4-CANCER  
Phone: (301) 435-3848  
[www.nci.nih.gov](http://www.nci.nih.gov)

#### American Cancer Society

1599 Clifton Road, N.E.  
Atlanta, GA 30329-4251  
Phone: (800) ACS-2345  
[www.cancer.org](http://www.cancer.org)

#### American Academy of Dermatology

930 N. Meacham Road  
Shaumburg, IL 60173  
Phone: (847) 330-0230  
Toll-free: (888) 462-DERM  
[www.aad.org](http://www.aad.org)

#### The Skin Cancer Foundation

P.O. Box 561  
New York, NY 10156  
Toll-free: (800)SKIN-490  
[www.skincancer.org](http://www.skincancer.org)

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