

## Actinic Keratosis and Actinic Cheilitis

An actinic keratosis is a scaly or crusty bump that forms on the skin surface. They are also known as solar keratosis. They range in size from as small as a pinhead to an inch across. They may be light or dark, tan, pink, red, a combination of these, or the same color as your skin. The scale or crust is dry and rough, and is often recognized easier by touch rather than sight. Occasionally it itches or produces a pricking or tender sensation, especially after being in the sun. It may disappear only to reappear later. Half of the keratosis will go away on their own if you avoid the sun for a few years. You will often see several actinic keratoses show up at the same time. A keratosis is most likely to appear on the face, ears, bald scalp, neck, backs of hands and forearms, and lips.

### Why is it dangerous?

Actinic Keratoses are also known as “precaners”. It is estimated that up to 40 percent may progress to squamous cell carcinomas. Squamous cell carcinomas are usually not life threatening, provided they are detected and treated in the early stages. However, if this is not done, they can bleed, ulcerate, become infected, or grow large and invade the surrounding tissues and, can metastasize or spread to the internal organs.

The most aggressive form of keratosis, actinic cheilitis, appears on the lips and can evolve into squamous cell carcinoma. When this happens, roughly one-fifth of these carcinomas metastasize (spread). The presence of actinic keratoses indicates that sun damage has occurred and that any kind of skin cancer -- not just squamous cell carcinoma can develop. People with actinic keratosis are more likely to develop melanoma also.

Sun exposure is the cause of almost all actinic keratoses. It is lifetime sun exposure that accumulates for years, not recent to your risk. Ultraviolet rays bounce off sand, snow, and other reflective surfaces; about 80 percent can pass through clouds. People who have fair skin, blonde or red hair, blue, green, or gray eyes are at the greatest risk because their skin has less protective pigment and they are the most susceptible to sunburn. Even those who are darker-skinned can develop keratosis if they heavily expose themselves to the sun without protection.

Individuals who are immunosuppressed as a result of cancer chemotherapy, AIDS, or organ transplantation, are also at higher risk. It seems that while you're healthy, the body keeps them in check. Because more than half of an average person's lifetime sun exposure occurs before the age of 20, keratoses appear even in people in their early twenties who have spent too much time in the sun.

### How is it treated?

There are a number of effective treatments for eradicating actinic keratoses. The decision on whether and how to treat is based on the nature of the lesion, your age, and your health.

Curettage is a commonly used treatment. The physician scrapes the lesion and takes a biopsy specimen to be tested for malignancy. Bleeding is controlled by application of an acid or heat produced by an electric needle.

Shave Removal utilizes a scalpel to shave the lesion and obtain a specimen for testing. The base of the lesion is destroyed, and the bleeding is stopped by cauterization.

Cryosurgery freezes off lesions through application of liquid nitrogen with a special spray device or cotton-tipped application. It does not require anesthesia and produces no bleeding. The longer the spot is frozen the better the chance it will never come back, however longer freezing times may lead to scarring.

Dermabrasion removes the upper layers of the skin by sanding or using a fine wire brush operating at 20-25,000 revolutions per minute. The skin is left raw and crusted for a number of days. Once healed after a few weeks, the skin is free from nearly all of the warts, age spots, freckles, most wrinkles and keratosis. The results are long lasting.

Chemical peels: Chemical peels are a milder alternative that has similar, but less complete, effects. Chemical peeling makes use of acids (jessners solution and/or trichloroacetic acid) applied all over the area. The top layers of the skin peel off and are usually replaced within seven days by growth of new skin. Redness and soreness usually disappear after a few days.

Topical Medications: There are prescription creams that are effective in removing keratoses, particularly when lesions are numerous. The patient applies the medication for a few weeks, with progress checked by a physician. Treatment leaves the affected area temporarily reddened and raw and will cause some discomfort resulting from skin breakdown, however it is a very effective treatment for those with many actinic keratoses.

Photodynamic Therapy is a treatment where we apply a medication to the area in the office, let it sit for a couple of hours, and then activate it with a light source for a few minutes. This can be uncomfortable during the activation process, but it only lasts a few minutes and allows the patient to treat a great number of lesions at once, versus applying a cream for several weeks.

Laser Surgery focuses the beam from a carbon dioxide or erbium-yag laser onto the lesion. This treatment is more popular now that these lasers are readily available, and appears equally effective. This approach, like dermabrasion and chemical peeling, is usually not covered by insurance.

In conclusion, actinic keratosis need to be treated to prevent their conversion to squamous cell carcinoma. This avoids the potentially more invasive and extensive treatment of a subsequent malignancy. Regular follow-up visits are usually needed when there are many keratoses.