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# Actinic Keratosis

What are keratoses?

Keratosis refers to a scaly growth on the skin. There are two forms: actinic keratoses and seborrheic keratoses .

What are Actinic Keratoses?

Actinic Keratoses (AKs) are rough, scaly spots that occur on skin that has been exposed to the sun over a period of years. These lesions are the result of damage to the skin by the sun's ultra violet radiation. AKs are usually small &ndash; most are no bigger than a pencil eraser &ndash; but some may be as big as a half-dollar in diameter. They may be skin-toned, reddish brown, or yellowish in color. They have scaly, irregular surfaces that are rough to the touch and sometimes a stinging sensation is noted. The number of AKs ranges from one or a few to many. People who have fair skin and light-colored hair and eyes are at the greatest risk of developing AKs. Individuals who are immunosuppressed, either by cancer chemotherapy or organ transplant medications, are also at high risk for development of AKs.

Are AKs cancerous?

AKs are cancerous lesions, but they can usually be completely cured with

liquid nitrogen applied by your dermatologist. Sometimes AKs will resolve without treatment, provided the skin is not further damaged by continued sun exposure. However, if an AK persists for a month or more it should be removed. These lesions can progress to squamous cell carcinoma. Health care providers usually recommend treatment for large AKs or areas of the skin with many lesions.

How are AKs treated?

These lesions can be removed surgically, often with the use of a scraping instrument. Surgical removal is usually reserved for large lesions or for any AK that looks like it might be cancerous. The growth is sent to a laboratory for microscopic examination and analysis &ndash; a biopsy.

When there are just a few small AKs, freezing with liquid nitrogen (cryotherapy) is an option. Freezing causes blistering and shedding of the sun-damaged skin. With this method, you will experience a stinging and burning sensation at the treatment site which resolves quickly &ndash; usually beginning to subside shortly after application. Healing occurs in about 2 to 4 weeks, depending on the size and location of the AK. Topical Vitamin C and Vitamin E applied twice daily as soon as possible after the liquid nitrogen can speed resolution of the treated lesions.

Another commonly used treatment is a topical prescription medication called 5-fluorouracil (or 5-FU), which destroys sun-damaged skin cells. This treatment is preferred by many health care providers especially when there are many AKs &ndash; particularly on the scalp, face, ears, neck or arms. The medication is rubbed on the AKs for about two weeks. After about a week, the treated area begins to get red and then becomes raw. The applications are continued until your health care provider determines that you have the optimal results. Healing starts when the 5-FU applications are stopped. Healing can be hastened with topical hydrocortisone cream applied twice daily for about a week after the 5-FU is discontinued. Topical Vitamin C and Vitamin E applied twice daily can also speed resolution of the treated lesions.

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Laser resurfacing is another option for people with many lesions. While this method is not covered by insurance, it can remove AKs, Seborrheic Keratoses, age spots and fine wrinkles all in one treatment.

Can I prevent more AKs from developing?

Sun protection is the best defense against the development of AKs. You can protect yourself from excessive sun exposure by avoiding peak sun exposure (9 am to 4 pm) and wearing a hat and sun protective clothing to shield your skin from the sun. Ultraviolet light in UV-A spectrum also causes skin cancer; however, most sunscreens only block UV-B rays. For this reason, it's important to use clothing and avoid the sun when it's most intense.

In addition, the use of topical antioxidants, such as topical Vitamin C, Vitamin E, and Retin A (prescription required) has shown efficacy in preventing AKs.