

# Actinic Keratoses

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## What are they?

- A “keratosis” is a superficial skin growth with an abundance of keratin, one of the major types of protein in the top layer of skin. There are several different classes of keratoses (actinic, lichenoid, seborrheic, verrucoid...)
- “Actinic” keratoses are related to sun exposure, and are considered pre-cancerous. They usually do not appear until years after the sun exposure happens.
- They usually start as gritty, scaly red areas, which often feel like a small piece of sandpaper on the skin. They are most common on the face, ears, scalp and backs of the hands. They are often felt before they are seen, which is why we check the skin by touch as well as by looking.
- They may be asymptomatic, or may burn or itch or hurt when touched.
- Some of these lesions will actually resolve without any intervention. Most will persist if not treated. A small percentage of them will develop into a skin cancer called squamous cell carcinoma.
- These lesions are most often treated with liquid nitrogen.
- They can also be treated by applying a cream or solution (imiquimod or 5-fluorouracil) for several weeks. This is often a preferred method when a patient has a large number of lesions. The disadvantage of this treatment is that it can cause considerable inflammation, with a very visible rash and some discomfort, which lasts for weeks (as long as the medication is used.) The advantage is that this method also treats even the lesions that are too small to see or feel, before they become prominent.

## Should they be removed?

Although most actinic keratoses never become skin cancer, the usual recommendation is to get rid of the lesions if possible. There is no way to tell which lesions will become cancer and which ones will not. Also, since they are often symptomatic, getting rid of them is usually preferable for the patient.

Actinic keratoses take years, usually, to become skin cancer. Once the transformation to skin cancer has occurred, freezing with liquid nitrogen no longer works well. The type of skin cancer that is produced by actinic keratoses is a squamous cell carcinoma. This skin cancer does not usually spread to other parts of the body, but it can—in which case it is life-threatening.

## Risk factors for actinic keratoses:

- Fair skin
- Sun damage and excessive sun exposure
- Increasing age (unusual before 40s)
- Immunosuppression—especially organ transplant recipients
- Family or personal history of skin cancer or precancers

## How can one prevent actinic keratoses?

Sun protection—the earlier in life, the better. See our sun protection handout. Remember that it takes years to make an actinic keratosis, so the benefits of sun protection will not be seen for some years after starting it.

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