

AK / SOLAR KERATOSIS / SENILE KERATOSIS /
SUN SPOT

Actinic keratosis

CATEGORY:

Lesions (precancerous)

LOOKS LIKE:

Flat or thickened spot; white, yellow, red, pink, skin-coloured or darker; usually 1–2 cm across

LOCATION:

Most common on sun-exposed sites eg, face and back of hands

FEELS LIKE:

Scaly, rough, warty, or horn-like; sometimes sore or itchy

OUTCOME:

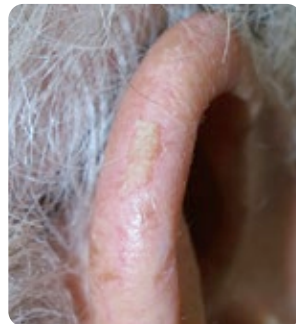
Treatable; can recur; precancerous



WHAT IT LOOKS LIKE —



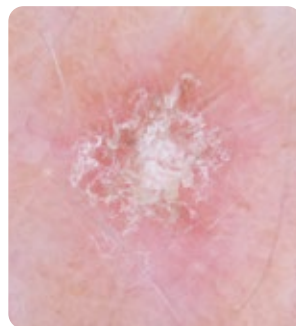
Actinic keratoses on the back of the hand



A sandy-coloured actinic keratosis on top of the ear



Thick actinic keratoses on a sun-damaged forearm



A close-up image of a rough sandy actinic keratosis on the cheek



Inflamed actinic keratoses during imiquimod treatment, as expected



A dark-coloured actinic keratosis on the nose

What is it?

Actinic keratoses (singular actinic keratosis) are rough scaly spots found on sun-damaged skin. While often harmless, they have a small risk of turning into skin cancer over time, especially if you have a number of them. For this reason, they are considered precancerous. Actinic keratoses are not contagious.

Actinic keratoses are also known as solar keratoses or 'sun spots'. Actinic or solar means 'sun-induced', and keratosis refers to the thickening of the skin.

You are more likely to get them if you have pale skin, get sunburned easily, have spent a lot of time in the sun, or have a weak immune system.

Actinic keratosis

CAUSES —

Actinic keratoses are the result of abnormal skin cell development due to damage caused by ultraviolet (UV) rays from the sun or sunbed use. They are more common in older age due to the increased overall exposure to the sun over time.

SYMPTOMS —

Actinic keratoses can vary in how they look and feel. They can be:

- Flat or thickened/raised from the skin
- 1–2 cm in diameter
- White, yellow, pink, red, dark, or the same colour as surrounding skin
- Scaly, warty, rough, or horn-like
- Sore, itchy, or painless.

It is common to have more than one actinic keratosis at a time. They usually come up in areas of repeated exposure to the sun (eg, back of hands, face, ears, and balding scalp).

COMPLICATIONS —

- **Recurrence** — actinic keratoses can sometimes grow back, even after treatment.

- **Squamous cell carcinoma (SCC)** — there is a small risk of actinic keratoses developing into this type of skin cancer. Having multiple actinic keratoses increases this risk, especially if you have more than 10. Clues to a developing SCC include an enlarging, thick, firm, lumpy, or sore/tender actinic keratosis.
- General increased risk of **other skin cancers** — such as basal cell carcinoma (BCC) or melanoma, also due to increased sun exposure.

DIAGNOSIS —

All new, changing, or unusual skin spots should be checked by your doctor. They can often identify an actinic keratosis based on what it looks like, sometimes with the help of a handheld magnifying tool (dermatoscope).

As actinic keratoses may sometimes resemble skin cancers, diagnosis can be confirmed with a biopsy (sample) if there is doubt. This involves removing and sending part or all of the spot to the laboratory for testing.

PREVENTION AND TREATMENT —

Sun protection is important to prevent actinic keratoses, and to reduce skin cancer risk. Apply sunscreen, wear sun protective clothing, avoid sunbeds, and limit sun exposure, particularly during the middle of the day.

Regular **skin checks** with your doctor are also recommended to catch any changes early.

Actinic keratoses can be treated if how they look bothers you, if they are uncomfortable, or if there are concerns for skin cancer. **Treatment** options may include:

- Freezing them with liquid nitrogen (**cryotherapy**)
- Cutting them out (**excision**)
- Scraping (**curettage**) or shaving them off
- **Creams** such as 5-fluorouracil and imiquimod, particularly for flat actinic keratoses
- Laser or photodynamic light therapy (PDT).

OUTCOME —

Treatment is often successful, but recurrence is common. Having had actinic keratoses before, you are also more likely to get other new actinic keratoses or skin cancers. Ongoing sun protection can help reduce this risk, and routine skin checks are advised.

Vitamin B3 (nicotinamide) may also reduce the risk of further actinic keratoses and skin cancers in some patients — discuss with your doctor if this is right for you.



MORE INFORMATION —
<https://dermnetnz.org/topics/actinic-keratosis>

