

Solar Keratosis

What are solar keratosis?

Solar keratosis are patches of dry, scaly skin, which may cause itching and irritation. They commonly occur on the scalp, face, ears, forearms, and back of the hands. They are very commonly seen on the scalp in men who have hair thinning.

What causes solar keratosis to develop?

Solar keratosis are caused by damage to surface skin cells from ultraviolet sunlight. They are especially common in fair-skinned people that have lived abroad, worked outdoors, or in those that enjoy sunbathing. Ultraviolet light damages the outer layer of the skin causing cells to overgrow and this produces the raised firm scaly lesions that are seen in solar keratosis. This damage accumulates over many years of exposure and more than 20% adults aged over 60 years develop solar keratosis. Ultraviolet light is also responsible for producing premature ageing, wrinkles, flat brown pigmented skin lesions ("sun spots"), thinning of the skin (solar elastosis), and skin cancers.

Are solar keratosis harmful?

Generally speaking, solar keratosis are not harmful and can be left untreated if they are not causing any symptoms. However, patients should be aware that they are at an increased risk of developing co-existent skin cancer because they also develop in sun-damaged skin. The risk of an individual solar keratosis turning into a skin cancer is very small (less than 1 in 1000 lesions).

Is treatment necessary?

Very early solar keratosis do not need treatment and may resolve spontaneously. However, treatment may be warranted if they itch, bleed, or if there is any concern about the development of a skin cancer. The daily application of a moisturiser such as E45[®] or Vaseline Intensive Care[®] may help alleviate symptoms. Sun avoidance is necessary to help reduce the number of new lesions developing.

What treatments are effective?

Persistent solar keratosis may require treatment. There are several effective treatment options:

Solaraze Gel[®] (Diclofenac and Hyaluronidase):

This is applied once daily for 4-6 weeks. It works by causing inflammation in the unstable skin cells. Treated skin lesions look worse before they improve. They may become red, sore and weep. Solaraze[®] is about 70% effective and works best in early superficial lesions. Treatment courses may be repeated.

Efudix Cream[®] (5-Flourauracil Cream):

Efudix[®] is applied twice daily for 3-4 weeks or once daily for 4-6 weeks to a small area of affected skin (typically less than 8-10cm²). It works by destroying abnormal skin cells and causes a pronounced inflammation in skin lesions. It is normal to see redness, crusting, and rarely ulceration. Treatment may need to be stopped for a few days if the reaction is very intense. You may need to ask your GP to prescribe a topical steroid/antibiotic (Fucibet[®] cream) if the reaction is severe. It is 85% effective and is very effective for multiple unstable lesions. Treatment courses can be repeated or rotated around different areas.

Cryotherapy Freezing (Liquid Nitrogen):

Cryotherapy destroys the unstable skin cells allowing healthy skin cells to heal the treated area. Freezing typically takes a few seconds and wounds heal in 7-15 days. It is relatively painful but very effective (90% of skin lesions will resolve with a single freeze). Side-effects include blistering, crusting and occasionally a white permanent scar.

Photodynamic Therapy (Metvix PDT[®]):

Extensive facial or scalp solar keratosis may require treatment with a special cream and red light. The cream is selectively absorbed by abnormal skin cells to make a photosensitive chemical that is then destroyed by light or laser therapy. It can be used for extensive disease and has the advantage that healing only takes 7-10 days with good cosmesis. Multiple treatments may be required and each session is typically 70-75% effective.

Skin Curettage & Cautery:

Thickened or persistent solar keratosis may be treated by scraping (curettage) and burning (cautery). A local anaesthetic injection is required prior to treatment. Healing typically takes 10-21 days but may be longer on the lower leg.

Do I need to be seen regularly by a dermatologist?

No, your GP can normally review your skin and prescribe treatments.

Can I do anything to help the skin problem?

Studies have shown that avoidance of further exposure to sunlight reduces the number of new skin lesions. It is advisable to avoid sun exposure by covering up with light clothing, use of a wide-brimmed hat, and by wearing a high Sun Protection Factor (SPF>25) sunscreen. Try and avoid sun exposure between 11am and 3pm.