# Sun damage

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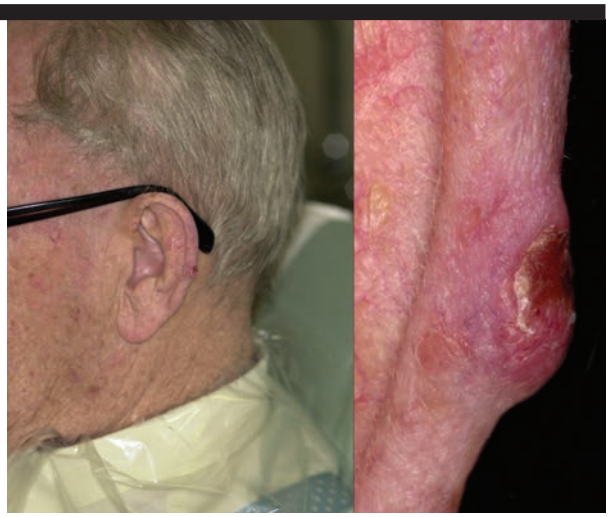
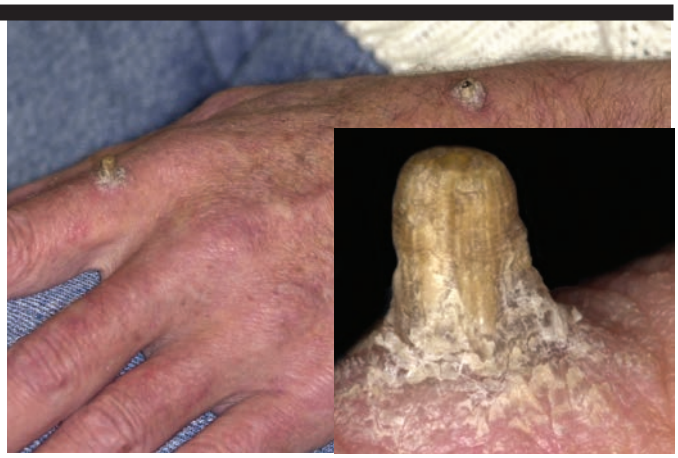
## Squamous cell carcinoma

Squamous cell carcinoma (SCC) is the second most common form of non-melanoma skin cancer after basal cell carcinoma (BCC). More than 90% of SCCs occur as a result of UV exposure. Human papilloma virus infection may also be a contributory factor especially in immunosuppressed patients. Unlike BCCs, SCCs grow rapidly but may develop in pre-existing lesions such as ulcers. Any rapidly changing or suspicious looking lesions should be referred urgently via the suspected cancer referral pathway for an appointment within two weeks. Sun-exposed areas such as the ears are high risk and if there are any new lesions a diagnosis of SCC should be considered. Treatment involves excision or radiotherapy.



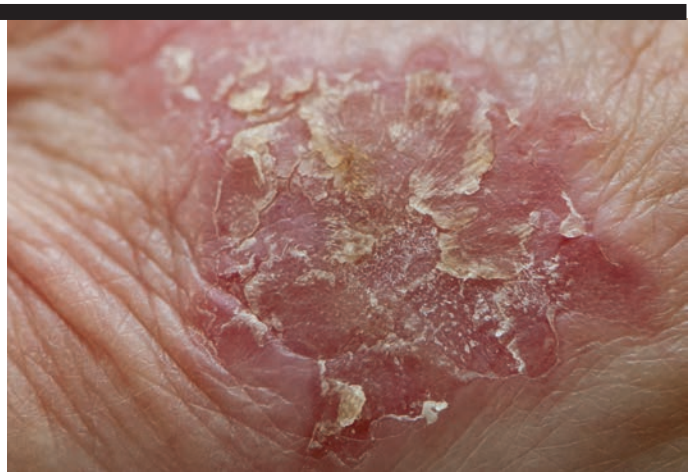
## Actinic keratosis horn

Horns are hard outgrowths of keratin, so named because of their resemblance to animal horns. They are more common in older people with a peak incidence between 60 and 70 years of age. Although the lesions occur equally in both sexes those in men are more commonly malignant. Underlying causes include actinic keratosis, as in this case, SCCs and viral warts. Actinic keratoses are caused by sun damage and are more common on sun-exposed areas. Treatment is usually by surgical excision of the base. During excision it is vital that enough tissue is removed to exclude a malignant cause when histological examination is undertaken. Malignant horns are usually larger, more painful and grow more rapidly. They have indurated skin around the base, a wide base to height ratio, and redness at the base.



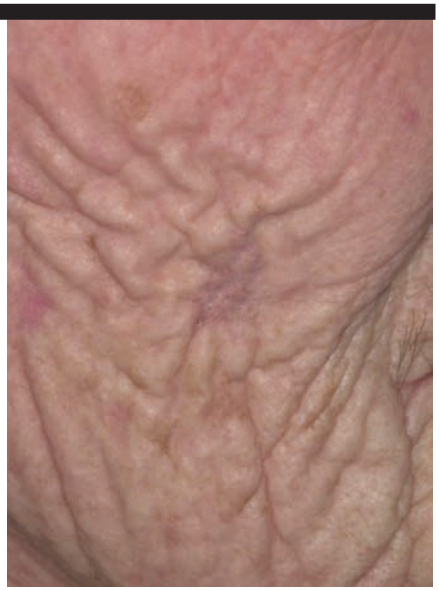
## Bowen's disease

Also known as intraepidermal squamous cell carcinoma, Bowen's disease is usually caused by damage to squamous cells by UV light. It generally presents as red irregular scaly plaques on sun-exposed areas. The plaques may be single or multiple and up to several centimetres in diameter. In around 3-5% of cases transformation to squamous cell carcinoma occurs, which is the reason why treatment is usually undertaken. Management includes superficial skin surgery, cryotherapy, imiquimod, 5 fluorouracil, photodynamic therapy and radiotherapy. In the very elderly treatment is not always required and emollients may be sufficient to manage the lesions.



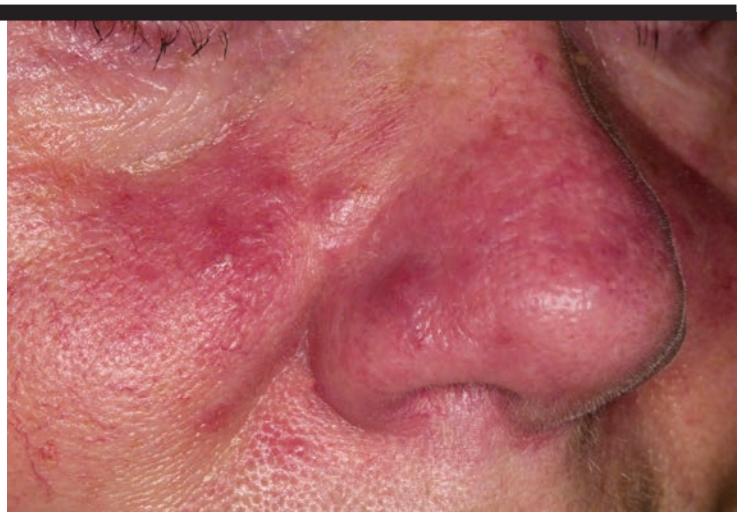
## Solar elastosis

Solar or actinic elastosis is caused by chronic sun exposure. It is characterised by thickened yellow skin, with wrinkling and furrowing, usually on the face. Microscopic examination of affected skin shows an increase of irregularly thickened elastic fibres which degrade into disorganised tropoelastin and fibrillin tangled structures. Smoking has an adverse effect on collagen production, hence solar elastosis is seen more often in smokers. The main advice should be to avoid UV light and stop smoking. Treatment is not required other than for cosmetic reasons and options include dermal fillers, ablative and non-ablative laser treatments and botulinum toxin injections all of which may improve the appearance of the skin.



## Rosacea

Rosacea is a common chronic condition causing a rash usually on the nose and central face. Pustules may be present which can give the appearance of acne. However, there are no comedones which is a useful distinguishing feature. UV light is a common trigger as is alcohol, hot spicy food and heat. There are various forms including phymatous, ocular, papulopustular and erythematotelangiectatic rosacea. Brimonidine gel reduces erythema. Ivermectin cream is thought to work by reducing inflammation and the number of Demodex mites. Other treatments include topical and oral antibiotics.



## Discoid lupus

Discoid lupus is the most common chronic form of cutaneous lupus erythematosus. It is characterised by a persistent scaly rash which is localised, above the neck, in 80% of cases and generalised, above and below the neck, in the other 20%. Contributory factors include: sun exposure; genetic predisposition; hormones (especially oestrogen) and exposure to cigarette smoke and other toxins. It is five times more common in females compared with males and the onset is usually between 20 and 40 years of age. The condition occurs mainly in sun-exposed areas which may be helpful when making a diagnosis. If the diagnosis is in doubt a biopsy can be undertaken. Sun protection is very important all year round and vitamin D supplementation may be required. Treatment approaches include topical therapy such as steroids and calcineurin inhibitors or systemic therapy such as methotrexate or azathioprine.