



CHRONIC ACTINIC DERMATITIS

What are the aims of this leaflet?

This leaflet has been written to help you to understand more about chronic actinic dermatitis (CAD). It explains what it is, what causes it and what can be done about it. It also tells you where you can find more information about the condition.

What is chronic actinic dermatitis (CAD)?

The term 'chronic actinic dermatitis' or 'CAD' is used to describe an unusual type of eczema or dermatitis that is caused by abnormal skin sensitivity to sunlight (photosensitivity). CAD is considered a chronic complaint as it usually lasts for several years. 'Actinic' means 'caused by sun' and 'dermatitis' is 'inflammation of the skin'.

What causes CAD

People with CAD are over-sensitive to sunlight and get an eczema skin reaction that can be triggered by very brief sun exposure, sometimes less than a minute. It mainly affects areas of skin that are exposed to the light every day i.e. face, neck, upper chest and the back of the hands/forearms. It is usually worse in the summer when the sunlight is strongest. There can be a delay of several days between sun exposure and the skin reaction, so people with CAD are not always aware that the two are linked. It is thought that CAD is caused by an allergic reaction to sunlight, but it is unclear why this happens.

Other points about CAD

- It is more common in men than women
- It usually starts after the age of 50
- People often develop CAD after having an in-built tendency to atopic or seborrhoeic dermatitis
- It is associated with skin contact allergies in 75% of cases
- It can affect any racial group
- It is more common in temperate countries away from the equator

Is CAD Hereditary?

No

What are the symptoms of CAD?

CAD is a type of dermatitis or eczema, and the skin is usually hot, swollen and red. It may feel sore, itchy or burning. Blisters can develop or the surface may feel dry and flaky.

What does CAD look like?

The rash of CAD is often strikingly limited to sun exposed areas (face, 'v' of the neck, back of the hands and forearms) and spares the shaded areas under the chin, behind the ears and under watch straps. Sometimes the rash is more widespread and extends onto covered sites or the palms and soles. The skin may initially be swollen and red. With time, it becomes thickened and lined with altered pigmentation (increased or reduced). Increased pigmentation can be especially noticeable in darker skin types.

How can CAD be diagnosed?

Patients with CAD usually have severe dermatitis of the head and neck and they get referred to a dermatologist for assessment. The distribution of the dermatitis can be a helpful pointer to diagnosis, but it can be difficult to tell CAD apart from other types of facial eczema just from the appearance. Further tests are usually needed including:

Phototests (light tests) – to investigate abnormal skin sensitivity to ultraviolet (UV) or visible light. Testing with a monochromator can determine which wave band(s) are triggering the reaction. This is usually UVB, but sometimes there is also an excessive reaction to UVA or even visible light. Finding out which wavebands are triggering a person's CAD can help guide best treatment with sunscreens and other forms of light protection.

Patch tests and photopatch tests – to identify any chemical allergies i.e. allergic contact dermatitis. These include natural fragrances and plants, preservative chemicals, medicaments and sunscreens. (See [patch testing](#) PIL)

Can CAD be cured?

No, there is no cure for CAD and many people with CAD remain sensitive to sunlight for several years. However, most people are able to help the problem by careful sun avoidance and with medication (see below). One study found that CAD cleared in half of all sufferers after about 15 years.

Self care –What can I do?

Photoprotection

The most important aspect of managing CAD is to protect the skin from sunlight. This can be done by staying indoors when the sun is at its brightest (between 11am and 3 pm). It is essential to cover the skin as much as possible when outside, even on dull days. Close weaved, long sleeve clothing is good at blocking the sun's rays and a hat is needed to shade the face. Some people also use visors, UV-protective goggles and cotton gloves. Protecting the skin from sun may help the condition and should stop it worsening.

A high factor, broad sunscreen, non-fragranced sunscreen should be used to protect any exposed areas of skin. A reflectant mineral sunscreen is needed to give protection to individuals who are also daylight sensitive. These can be obtained as tinted creams to match different skin tones for example from Tayside Pharmaceuticals (see below for details)

People who work outdoors or have outdoor hobbies are advised to try and adjust their lifestyle to minimise sun exposure. The light from a television or computer screen is safe, but compact fluorescent lamps can emit enough UV to aggravate CAD. People who are sensitive to UVA may need to use a special photo-protective films on the windows of their car and home to filter out the UV rays. These usually need to be replaced after about 5 years. Some car manufacturers offer UV protective glass as an optional extra. For further information about UV protective films see the consensus statement from the [British Photodermatology Group](#).

Avoiding allergens

Many people with CAD have contact allergies which can be identified by patch and photopatch testing. It is important to avoid all future skin contact with these chemicals.

Vitamin D advice

The evidence relating to the health effects of serum Vitamin D levels, sunlight exposure and Vitamin D intake remains inconclusive. Avoiding all sunlight exposure if you suffer from light sensitivity, or to reduce the risk of melanoma and other skin cancers, may be associated with Vitamin D deficiency.

Individuals avoiding all sun exposure should consider having their serum Vitamin D measured. If levels are reduced or deficient they may wish to consider taking supplementary vitamin D3, 10-25 micrograms per day, and increasing their intake of foods high in Vitamin D such as oily fish, eggs, meat,

fortified margarines and cereals. Vitamin D3 supplements are widely available from health food shops.

How can CAD be treated?

Topical therapy: creams and ointments

The first form of treatment is usually a strong steroid cream or ointment applied once a day to the affected areas. Moisturisers are used to treat dry skin with a fragrance-free soap substitute for skin cleansing. Non-steroid anti-inflammatory agents (Tacrolimus and Pimecrolimus) may be useful alternatives to steroids.

Oral medication

Short courses of steroid tablets are sometimes given for a flare of CAD and longer term immune suppressing medication with drugs such as azathioprine or ciclosporin may be needed in severe cases. These drugs need careful monitoring and are given under the supervision of a dermatologist.

Phototherapy

Sometimes, a course of UV therapy can be successful in desensitising the skin. Psoralen UVA (PUVA) treatment is usually chosen as treatment with UVB usually triggers a flare.

Where can I get more information about CAD?

Web links to detailed leaflets:

<http://dermnetnz.org/reactions/chronic-actinic-dermatitis.html>

<http://www.netdoctor.co.uk/diseases/facts/actinicdermatitis.htm>

<http://www.pcds.org.uk/clinical-guidance/chronic-actinic-dermatitis>

Other information:

Tayside Pharmaceuticals

Ninewells Hospital

Dundee, DD1 9SY

Tel: 01382 632052

For details of source materials used please contact the Clinical Standards Unit (clinicalstandards@bad.org.uk).

This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: individual patient circumstances may differ, which might alter both the advice and course of therapy given to you by your doctor.

This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel

**BRITISH ASSOCIATION OF DERMATOLOGISTS
PATIENT INFORMATION LEAFLET
PRODUCED FEBRUARY 2011
UPDATED FEBRUARY 2014, JUNE 2017
REVIEW DATE JUNE 2020**

