



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) and explains what it is, what causes it, how it can be treated. 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 usually lasts for several years. 'Chronic' means the condition can last a long time, 'Actinic' means sunlight is involved and 'dermatitis' means inflammation of the skin.

What causes CAD

People affected by CAD have skin which is over-sensitive to sunlight or artificial light and get a type of eczema reaction that can be triggered by very brief sun exposure, sometimes in less than a minute, although it usually appears between 7 and 24 hours later. It mainly affects the areas of skin that are exposed to light i.e. face, neck, upper chest and the back of the hands/forearms. It is usually worse in the summer when the sun is strongest. There can be a delay of several days between sun exposure and the skin reaction, so people affected by CAD are not always aware that the two are linked. It is thought that CAD is caused by an allergic reaction to sunlight or artificial light, but it is unclear why this happens.

Other points about CAD

- CAD is more common in men of lighter skin types and women of darker skin types.
- CAD usually starts after the age of 50 but it may start earlier in people with a darker skin type

- People often develop CAD if they are affected by atopic or seborrhoeic dermatitis
- Certain medications such as particular antibiotics and diuretics can aggravate CAD
- CAD is associated with skin contact allergies in 75% of cases
- CAD can affect any racial group
- CAD is more common in countries away from the equator that have mild temperatures

Is CAD Hereditary?

No

What are the symptoms of CAD?

CAD is a type of dermatitis or eczema. The skin is usually hot, swollen, red and 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 clearly limited to areas of skin exposed to the sun (face, 'v' of the neck, back of the hands and forearms) and does not appear on the shaded areas under the chin, behind the ears and under watch straps. However, over time, unexposed areas can also be affected. Sometimes the rash is more widespread and extends onto skin that is usually covered or onto the palms and soles. The skin may initially be swollen and red. With time, the skin becomes thickened and lined with altered pigmentation (darker or lighter areas of skin). Increased pigmentation can be especially noticeable in people with darker skin. In severe cases, the skin may look more red all over.

How can CAD be diagnosed?

Patients affected by CAD usually have severe dermatitis of the head and neck, and are referred to a dermatologist for assessment. The dermatologist will take a detailed history of the medications being used. 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:

Laboratory tests – including autoantibodies to rule out certain autoimmune conditions that can mimic CAD.

Phototests (light tests) – to investigate abnormal skin sensitivity to ultraviolet (UV) or visible light. Testing with a monochromator light 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 CAD can help guide the best treatment with sunscreens and other forms of light protection.

Patch tests and photo patch tests – to identify any chemical allergies i.e. allergic contact dermatitis. The substances that can cause such allergies may include natural fragrances and plants, preservative chemicals, medications and sunscreens. (See [patch testing](#) PIL)

Can CAD be cured?

No, there is no cure for CAD and many people affected by CAD remain sensitive to sunlight for several years. However, most people are able to lessen 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 11 am and 3 pm). It is essential to cover the skin as much as possible when outside, even on dull days. Close-weaved, long-sleeved 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 spectrum, non-fragranced sunscreen should be used to protect any exposed areas of skin. A mineral sunscreen that reflects light 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 film 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 affected by CAD have contact allergies which can be identified by patch and photo patch testing. It is important to avoid all future skin contact with these products.

Vitamin D advice

The evidence relating to the health effects of serum vitamin D levels, exposure to sunlight and vitamin D intake, is inconclusive. People who are avoiding (or need to avoid) sun exposure may be at risk of vitamin D deficiency and should consider having their serum vitamin D levels checked. If the levels are low, they may consider:

- taking vitamin D supplements of 10-25 micrograms per day
- increasing intake of food rich in vitamin D such as oily fish, eggs, meat, fortified margarine and cereals.

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 cream/ointment (Tacrolimus and Pimecrolimus) may be useful alternatives to steroids.

Oral medication

Short courses of steroid tablets are sometimes given for a flare-up of CAD. In severe cases, longer term immune suppressing medication with drugs such as azathioprine, ciclosporin or mycophenolate may be needed. 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 (oral medication) and UVA (PUVA) is a combined treatment usually chosen to treat flare-ups. Topical or oral steroids are sometimes given alongside UV therapy.

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

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

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