



## **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?**

The term 'chronic actinic dermatitis' or 'CAD' is used to describe a particularly severe form of eczema in which sensitivity to light is a dominant feature (photosensitivity). The term is a good one as it describes the main features of this condition concisely: 'chronic' means long-term - CAD typically persists for a number of years. 'Actinic' is a medical word meaning 'caused by sun' and 'dermatitis' is another term for eczema, which is an itchy inflammatory skin disorder.

### **What causes CAD?**

People with CAD are very sensitive to sunlight. This causes an eczema-like reaction and can happen after as little as 30 seconds of exposure. It often only affects the areas of skin which are directly in the light, and is usually worse in the summer when sunlight is strongest. There can be a delay between the sun exposure and the skin change of several days, so people may not realise the two are linked. It is not clear exactly why certain people develop this reaction to sunlight. It may be that this is an allergy that is triggered only when light comes into contact with skin.

#### *Other points about CAD:*

- It is more common in men than women
- It usually starts after the age of 50
- It may occasionally occur in younger patients with atopic dermatitis

- It is also associated with a skin allergy to substances other than sunlight in 75% of cases
- It can affect any racial group
- It is more common in countries away from the equator

### **Is CAD hereditary?**

There is no evidence that CAD runs in families, or that it can be passed on to children.

### **What are the symptoms of CAD?**

Often the first thing that people with CAD notice is redness or inflammation of the face and hands which can be patchy or general. This may not cause any other symptoms but some may have itching and burning. Others may have swelling, small blisters or scaling and peeling of the skin. Some people have a long history of other forms of dermatitis or eczema and then develop these changes.

### **What does CAD look like?**

The eczematous skin changes are often strikingly limited to sun-exposed areas such as the face, ears, scalp,  $\pm$ /q of the neck, forearms and backs of hands. There can be sharp cut-off lines where covered areas meet sun-exposed skin. After some time, the skin becomes thickened, dry and scaly. These changes may persist throughout the winter months but tend to be more severe in the summer. Skin pigmentation may develop, which can be particularly striking in darker skin types.

### **How can CAD be diagnosed?**

Patients with CAD tend to have severe skin disease and are usually referred to their local dermatology service. If the dermatologist suspects CAD they will usually refer the person for light testing.

**Phototesting:** In order to confirm the diagnosis of CAD light testing is carried out. This painless test involves exposing sun-protected skin on the back to a range of different doses of ultraviolet rays of types A and B, and also to visible light. These tests usually reveal significant photosensitivity to one or more of the wavelengths of these types of light. This helps to establish the diagnosis and may also be useful when planning how best to protect the skin from the activating wavelengths.

**Patch testing:** Most patients with CAD also have an additional investigation called patch testing to see if they are allergic to any chemicals that come into contact with the skin. These chemicals include fragrances, plants, preservatives in creams and even the ingredients in sunscreens. Patch testing involves having a series of chemicals applied to the skin on the back under specially designed adhesive patches. These remain on the back for 2 days. Allergy to a chemical is characterised by a red, spotty skin response under the patch test tape.

### **Can CAD be cured?**

There are currently no treatments that can cure CAD and many patients with CAD remain sensitive to the sun for several years. About 10-20% of patients will find the problem goes away by itself after a number of years.

### **Self Care (what can I do?):**

#### **A. Photoprotection**

The most important thing to do is to protect the skin from the sun, even on dull days. This can be done by staying indoors, particularly when the sun is at its brightest (between 10 a.m. . 3 p.m.). It is also essential to cover the skin as much as possible when outside. Clothing is good at blocking the sun's rays. Some people use hoods, hats, visors and cotton gloves. Protecting the skin from the sun may improve the condition and may stop it worsening.

If patients work outdoors or have hobbies which involve being outside, they may need to try and adjust their lifestyle where possible to minimise sun exposure. Watching television or a computer screen is safe. Some people need to apply certain ultraviolet protective adhesive films to their car and home windows to stop the ultraviolet light coming through.

Appropriate sunscreens should be used and some of the sunscreens available in the shops might be either weak or could be an additional causal factor in the skin reaction. An example of such useful sunscreens is a tinted reflectant sunscreen, which can be mixed to match the individual skin colour and is available on prescription from Tayside Pharmaceuticals, Ninewells Hospital, Dundee, DD1 9SY, UK (Tel: +44 (0)1382 632264).

#### **B. Avoidance of allergy**

If there is allergy present to any substances which are identified during patch testing, they should be very carefully avoided.

## **How can CAD be treated?**

### **A. Creams and ointments**

Usually, lots of moisturiser as well as steroid creams will need to be used on the affected areas. There are other creams which are not steroids that can sometimes help, such as tacrolimus and pimecrolimus

### **B. Desensitising light therapy**

Depending on how severely the skin is affected, the dermatologist may prescribe some ultraviolet light treatment. For some people this can desensitise the skin to light, or toughen it up so that they react less when exposed to the sun again.

### **C. Immune-suppressing tablets**

Occasionally, people with severe CAD require tablets to control their skin disease. This could be a steroid (prednisolone) tablet or another immune system suppressing tablet such as azathioprine or ciclosporin. These are potent medications that can have side effects (see relevant British Association of Dermatologists patient information leaflets) and patients would need to be carefully monitored in the clinic if they were prescribed these drugs.

## **Where can I get more information about CAD?**

*Web links to detailed leaflets:*

<http://dermnetnz.org/reactions/chronic-actinic-dermatitis.html> (includes photographs)

[www.netdoctor.co.uk/diseases/facts/actinicdermatitis.htm](http://www.netdoctor.co.uk/diseases/facts/actinicdermatitis.htm)

**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: its contents, however, may occasionally differ from the advice 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  
REVIEW DATE FEBRUARY 2014**