

## Eczema (Atopic Dermatitis)

Eczema affects the skin, causing redness, itching and sometimes infections. When eczema worsens it is called an eczema flare. Usually there is no single factor for an eczema flare.

### What causes eczema?

Why some people develop eczema is not well understood. It is common for people with eczema to have other allergies. This suggests that inherited (genetic) factors increase the tendency to develop eczema.

In people with eczema the skin does not retain moisture very well, which causes it to dry out easily. This makes the skin more open to allergens and irritants. These can trigger the skin to release chemicals that make the skin itchy. Scratching itchy skin causes more chemicals to be released, making the skin feel itchier. This scratch and itch cycle can cause discomfort, disrupt sleep and affect quality of life.

It is therefore important to keep skin that is prone to eczema well hydrated, by moisturising the skin every day.

### Eczema throughout life

Eczema is a chronic health problem that affects many people of all ages, but is most common in infants:

- Infantile eczema occurs in around 20% of children under two years of age, and usually starts in the first six months of life. Infantile eczema usually improves significantly between the ages of two to five years.
- Childhood eczema may follow infantile eczema, or start from two to four years of age. Rashes and dryness are usually found in the creases of the elbows, behind the knees, across the ankles and may also involve the face, ears and neck. This form of eczema usually improves with age.
- Adult eczema is similar to that of older children with areas of very dry, itchy, reddened skin at the elbow creases, wrists, neck, ankles and behind the knees. It can cause rough, hard and thickened skin, which may also have weeping areas. Although the condition tends to improve in middle life, and is unusual in the elderly, it can still occur.

### Eczema can be associated with other allergic disorders

Many people with eczema already have other allergies, or can develop other allergies, such as allergic rhinitis (hay fever), asthma, food allergy, or dust mite allergy. Studies have shown that up to 30% of infants with eczema, with a family history of allergy, will develop food allergy, and up to 40% develop asthma and/or allergic rhinitis (hay fever).

### Eczema and food allergy

Many infants with moderate or severe eczema will also have an allergy to food/s. If the food allergy is not the cause of the eczema, removal of the food/s will not reduce symptoms. Managing eczema well in infants may reduce the chance of children developing food allergy.

In some young infants with severe eczema, removal of certain food/s may result in better eczema control. This should always be conducted under the supervision of a medical specialist (clinical immunology/allergy specialist), in association with a dietitian who has specialised knowledge of food allergies.

If the skin improves, foods are introduced one at a time as a medically supervised food challenge, to determine which food causes the eczema to flare. If there is no improvement in two weeks on the elimination diet, it means that food is unlikely to be the cause of the eczema.

Children with eczema and/or food allergy can have false positive allergy tests, and this can lead to unnecessary removal of foods. Therefore, allergy test results should be interpreted by a clinical immunology/allergy specialist.

## Eczema treatments

Eczema can be well managed and the following steps may be used as a guide.

### Maintain and protect skin every day:

- Apply moisturiser to the face and body twice a day (avoid creams that contain food products).
- Use a non-soap based wash or oil in the bath or shower.
- Avoid soap and bubbly products which damage and dry out the skin.

### Avoid known triggers and irritants, which may include:

- Dry skin.
- Scratching (night gloves and clipped fingernails may be needed by young children).
- Viral or bacterial infections.
- Swimming in chlorinated swimming pools.
- Playing in sand, particularly sandpits.
- Sitting directly on carpets or grass.
- Inhalant allergens in spring and summer, which may also be due to pollen sensitivity.
- Food intolerances to artificial colours and preservatives.
- Irritants such as perfumes, soap, chemicals, woollen or synthetic fabrics.
- Temperature changes, such as overly heated rooms.
- Stress, which can make it worse, but eczema is not a psychological condition.
- Contact with animals or house dust mite allergen.
- Constant exposure to water, soap, grease, food or chemicals, that can damage the protective barrier function of the skin. Once the protective barrier of the skin is lost, eczema frequently develops.

### Treat eczema flares or severe eczema:

- By applying creams or ointments prescribed by your doctor, as soon as eczema is present, as under treatment of eczema can lead to trauma to the skin by itching and scarring.
- Use topical corticosteroids or topical calcineurin inhibitors to actively treat redness and inflammation. Ensure that adequate amounts are used. As a guide, one fingertip unit (FTU) is the amount of ointment from the first bend in the finger to the fingertip, which will cover an area equal to two adult hands.
- Apply moisturiser after corticosteroid cream has been applied.
- If prescribed, use immune modulating treatments for severe eczema.

### Control Itch:

- Itching to areas of unaffected skin can rapidly cause eczema, so it is vital to try to control itch.
- Cold compresses and wet wraps may help reduce itch.
- Antihistamines may also help reduce itch. However, sedating antihistamines are generally not recommended, and should not be used in young children without specialist supervision.

### Prevent and Treat Infection:

- Eczema is very prone to infection with bacteria like Staph (*Staphylococcus aureus*), and viruses such as the cold sore virus.
- Some people with eczema need to treat infections as they occur, and others may require long term prevention strategies, such as diluted bleach baths, which can help prevent future skin infections.
- Long term oral antibiotics can be helpful for people who suffer from recurrent infected eczema.

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