Atopic dermatitis

Also known as atopic eczema

What is atopic dermatitis?

Atopic dermatitis is a common condition that often begins in infancy or early childhood but can also begin in young adults or even later in life. The skin becomes red, swollen and very itchy. The itchiness may interfere with sleep. The inflammation and itchiness wax and wane in severity.

In infants, atopic dermatitis often affects the cheeks, scalp, outsides of the arms and legs and the trunk. In children and adults the inflammation involves the creases in the front of the arms and behind the knee, often the wrists, ankles and buttocks.

The skin is often dry.

What causes atopic dermatitis?

Both genetic and environmental influences are important. People with eczema often have relatives with eczema or sensitive skin, asthma, hay fever or allergic conjunctivitis. Hereditary factors predispose a person to having dry skin and a skin barrier that is less able to keep out environmental irritants and allergens. It also predisposes a person to producing immune antibodies to bacteria such as staphylococcal aureus and other allergens.

Each individual has his/her own mixture of predisposing factors.

What does atopic dermatitis look like?

The appearance varies with the age of the affected person. However, itching, scratching (often breaking the skin with scratching) and rubbing are present in all cases of atopic dermatitis. An itch–scratch-itch cycle may develop that leads to thickening, scaling and redness of the skin.

In infants the inflammation may lead to weeping and crusting. 90% of infants under the age of 6 months will have involvement of the face and neck.

From 2 to12 years the eczema is drier. The knee and elbow creases are involved. The skin of the neck, around the mouth and wrists and ankles is often inflamed. The dryness of the skin becomes more obvious.

From 12 years onwards, including adults, the atopic dermatitis may be more chronic, widespread, severe and treatment resistant. It may also develop for the first time as hand dermatitis or may mainly involve the face.

Sometimes other causes of severely itching skin may mimic the changes of atopic dermatitis. The treating dermatologist may need to undertake a biopsy or other investigations to determine the factors contributing to the dermatitis.

How is atopic dermatitis treated and controlled?

There is no single factor that causes the skin to become itchy and inflamed. Each individual has his/her own triggers. The most important factors for the individual will be identified with the help of a dermatologist.

Below is a list of some general measures that may be explored.

Manage environmental factors that may increase the inflammation

- Soap, shampoos and even soap-free washes all contain detergent that will irritate and dry the skin.

- Wool and all rough or "prickly" materials may irritate the skin. Avoid clothing that feels prickly and remove clothing tags. A clothes drier can soften clothes. Clothes can be lined with silk or boxer shorts can be worn under prickly clothes.

- Perfumed and medicated preparations including bubble bath, over-the-counter anti-itch creams, anti-itch bath additives and preparations containing plant extracts may irritate the skin.

- Using mattress protectors and the regular washing of pillows will help, if house dust mite allergy is found. However this may be only one factor that is aggravating the eczema.

- An allergy and immunology department can undertake prick testing and food challenges if, after discussion with your dermatologist or doctor, a food allergy is suspected. Food allergies are more common in people who have atopic dermatitis but are rarely the major contributing factor to the dermatitis. The skin still has a poor barrier function.

- Saliva (dribbling, sucking fingers, dummies) may aggravate eczema around the mouth.

- Sand, chlorine (heavily chlorinated swimming pools) and grass may irritate the skin.

- Pets – animal fur or saliva may cause allergy.

Improve the barrier function of the skin

- Avoid all soap or soap substitutes and avoid shampoo.

- Avoid bubble bath, scented bath salts or oils.

- Add non-perfumed bath oil to bath water but extra care will be needed because of slipperiness.

- Depending on the outside temperature, apply as greasy a moisturiser as possible all over, soon after coming out of the bath. Emulsifying ointment can be mixed with varying amounts of water by the chemist.

- Apply moisturisers once or twice daily, usually as a long-term preventive particularly when the skin is dry.

- When the skin is very inflamed, applying wet bandages over ointments or creams for 30 minutes will give better relief. Examples of "wet bandages" include Tubifast-type bandages or wet combine bandage for limbs, a damp singlet or cotton sweatshirt for the body, a damp bandana for the scalp and a damp scarf for the neck.

- Cool compresses on the face may provide immediate relief.

- Avoid frequent wiping of the face and hands with a wet cloth or with wipes.

Reduce inflammation

- Topical cortisone ointments or creams are the mainstay of treatment for atopic dermatitis. The dermatologist or doctor will select the appropriate strength of cream to use on different parts of the skin. On the face, under arms and groin areas the weakest preparations will be used. Topical calcineurin inhibitors may also be used.

- The cream or ointment must be applied (usually twice daily) until the active dermatitis has completely cleared. This also reduces the likelihood of a rebound flare-up.

- If the dermatitis is more severe, oral medications may be needed. Discuss options with the treating dermatologist or doctor.

Control infection

- A swab of the skin may be taken to identify the cause of the infection and antibiotics prescribed, as appropriate.

- If bacterial infections are recurrent: the nostrils may be treated with an antibiotic ointment; diluted bleach baths twice per week may also help. Options should be discussed with the treating dermatologist or doctor.

- Let the doctor or dermatologist know if the infection is not responding to treatment.

How is severe eczema treated?

Additional measures that may be used to control severe eczema include:

- Phototherapy – narrow band UVB or psoralen and UVA

- Cyclosporine

- Azathioprine

- Methotrexate

- Systemic corticosteroids

- Mycophenolate mofetil