



Official reprint from UpToDate®
www.uptodate.com ©2013 UpToDate®



Patient information: Atopic dermatitis (eczema) (Beyond the Basics)

Authors

William L Weston, MD
William Howe, MD

Section Editor

Robert P Dellavalle, MD, PhD, MSPH

Deputy Editor

Rosamaria Corona, MD, DSc

ECZEMA OVERVIEW

Atopic dermatitis, also known as eczema, is a skin problem that causes dry, itchy, scaly, red skin. It can occur in infants, children, and adults, and seems more common in certain families. Eczema can be treated with moisturizers and prescription ointments.

More detailed information about atopic dermatitis is available by subscription. (See "[Treatment of atopic dermatitis \(eczema\)](#)" and "[Management of severe refractory atopic dermatitis \(eczema\)](#)".)

ECZEMA CAUSES

The cause of eczema is not completely understood, although hereditary factors appear to play a strong role. Atopic dermatitis is caused by dysfunction in the outermost layer of the skin (the epidermis). The epidermis is the first line of defense between the body and the environment. When the epidermis is intact, it keeps environmental irritants, allergens, and microbes from entering the body.

In children, eczema is rarely linked to food allergies. If a food allergy is suspected, the child should be evaluated by an allergy specialist. (See "[Patient information: Food allergy symptoms and diagnosis \(Beyond the Basics\)](#)" and "[Role of allergy in atopic dermatitis \(eczema\)](#)".)

ECZEMA SYMPTOMS

Most people with eczema develop their first symptoms before age five. Intense itching of the skin, patches of redness, small bumps, and skin flaking are common. Scratching can cause additional skin inflammation, which can further worsen the itching. The itchiness may be more noticeable at nighttime.

Features of eczema vary from one individual to another, and can change over time. Although eczema is usually confined to specific areas of the body, it may affect multiple areas in severe cases:

- In infants, there may be red, scaly, and crusted areas on the front of the arms and legs, cheeks, or scalp. The diaper area is not usually affected.
- In children and adults, eczema commonly affects the back of the neck, the elbow creases, and the backs of the knees ([picture 1](#)). Other affected areas may include the face, wrists, and forearms

([picture 2](#)). The skin may become thickened and darkened, or even scarred, from repeated scratching.

The skin can also become infected as a result of scratching. Signs of infection include painful red bumps that sometimes contain pus; a healthcare provider should be consulted if this occurs.

Other findings in people with eczema can include:

- Dry, scaly skin
- Plugged hair follicles causing small bumps to develop, usually on the face, upper arms, and thighs
- Increased skin creasing on the palms and/or an extra fold of skin under the eye
- Darkening of the skin around the eyes

ECZEMA DIAGNOSIS

There is no specific test used to diagnose eczema. The diagnosis is usually based upon a person's medical history and physical examination.

Factors that strongly suggest eczema include long-standing and recurrent itching, a personal or family history of allergic conditions, and an early age when symptoms began. Other factors include worsened symptoms after exposure to certain triggers or any of the skin findings noted above.

ECZEMA TREATMENT

Eczema is a chronic condition; it typically improves and then flares (worsens) periodically. Some people have no symptoms for several years. Eczema is not curable, although symptoms can be controlled with a variety of self-care measures and drug therapy.

Who treats eczema? — Many patients with atopic dermatitis can initially be treated by their primary care provider. However, a skin specialist (dermatologist) may be recommended in certain situations, such as if the condition does not improve with treatment, if certain areas of the body are affected (face or skin folds), and if another condition could be causing symptoms.

Eliminate aggravating factors — Eliminating factors that worsen eczema can help to control the symptoms. Aggravating factors may include:

- Heat, perspiration, dry environments
- Emotional stress or anxiety
- Rapid temperature changes
- Exposure to certain chemicals or cleaning solutions, including soaps and detergents, perfumes and cosmetics, wool or synthetic fibers, dust, sand, and cigarette smoke.

Keep the skin hydrated

Emollients — Emollients are creams and ointments that moisturize the skin and prevent it from drying out. The best emollients for people with atopic dermatitis are thick creams (such as Eucerin®, Cetaphil®, and Nutraderm®) or ointments (such as petroleum jelly, Aquaphor®, and Vaseline®), which contain little to no water. Emollients are most effective when applied immediately after bathing. Lotions contain more water than creams and ointments and are less effective for moisturizing the skin.

Bathing — It is not clear if showers or baths are better for keeping the skin hydrated. Lukewarm baths or showers can hydrate and cool the skin, temporarily relieving the itching of eczema. An unscented, mild

