Eczema

What is Eczema?

Eczema is a general term for many types of skin inflammation, also known as dermatitis. The most common form of eczema is atopic dermatitis (some people use these two terms interchangeably). However, there are many different forms of eczema.

Eczema can affect people of any age, although the condition is most common in infants. Eczema will permanently resolve by age 3 in about half of affected infants. In others, the condition tends to recur throughout life. People with eczema often have a family history of the condition or a family history of other allergic conditions, such as asthma or hay fever. Up to 20% of children and 1%-2% of adults are believed to have eczema.

What are the causes of eczema?

Doctors do not know the exact cause of eczema, but an abnormal function of the immune system is believed to be a factor. Some forms of eczema can be triggered by substances that come in contact with the skin, such as soaps, cosmetics, clothing, detergents, jewelry, or sweat. Environmental allergens (substances that cause allergic reactions) may also cause outbreaks of eczema. Changes in temperature or humidity, or even psychological stress, for some people lead to outbreaks of eczema.

What are the symptoms of eczema?

Eczema most commonly causes dry, reddened skin that itches or burns, although the appearance of eczema varies from person to person and varies according to the specific type of eczema. Intense itching is generally the first symptom in most people with eczema. Sometimes, eczema may lead to blisters and oozing lesions, but eczema can also result in dry and scaly skin. Repeated scratching may lead to thickened, crusty skin.

While any region of the body may be affected by eczema, in children and adults, eczema typically occurs on the face, neck, and the insides of the elbows, knees, and ankles. In infants, eczema typically occurs on the forehead, cheeks, forearms, legs, scalp, and neck.

Eczema can sometimes occur as a brief reaction that only leads to symptoms for a few hours or days, but in other cases, the symptoms persist over a longer time and are referred to as chronic dermatitis.
What are the different types of eczema?

Atopic dermatitis is the most common of the many types of eczema, and sometimes people use the two terms interchangeably. But there are many terms used to describe specific forms of eczema that may have very similar symptoms to atopic dermatitis. These are listed and briefly described below.

**Atopic dermatitis**

Atopic dermatitis is a chronic skin disease characterized by itchy, inflamed skin. Atopic dermatitis is believed to be caused by an abnormal function of the body's immune system. The condition tends to come and go, depending upon exposures to triggers or causative factors. The most common form of eczema, atopic dermatitis, affects about 10% of infants and 3% of adults in the U.S. Around two-thirds of those who develop the condition do so prior to age 1. When the disease starts in infancy, it is sometimes termed infantile eczema. Atopic dermatitis tends to run in families, and people who develop the condition often have a family history of allergic conditions such as asthma or hay fever.

**Contact eczema**

Contact eczema (contact dermatitis) is a localized reaction that includes redness, itching, and burning where the skin has come into contact with an allergen (an allergy-causing substance to which an individual is sensitized) or with a general irritant such as an acid, a cleaning agent, or other chemical. Other examples of contact eczema include reactions to laundry detergents, nickel (present in jewelry), cosmetics, fabrics, clothing, and perfume. Due to the vast number of substances with which individuals have contact, it can be difficult to determine the trigger for contact dermatitis. The condition is sometimes referred to as **allergic contact eczema** (allergic contact dermatitis) if the trigger is an allergen and **irritant contact eczema** (irritant contact dermatitis) if the trigger is an irritant. Skin reactions to poison ivy and poison sumac are examples of allergic contact eczema. People who have a history of allergies have an increased risk for developing contact eczema.

**Seborrheic eczema**

Seborrheic eczema (seborrheic dermatitis) is a form of skin inflammation of unknown cause. The signs and symptoms of seborrheic eczema include yellowish, oily, scaly patches of skin on the scalp, face, and occasionally other parts of the body. Dandruff and "cradle cap" in infants are examples of seborrheic eczema. It is commonplace for seborrheic dermatitis to inflame the face at the creases of the cheeks and/or the nasal folds. Seborrheic dermatitis is not necessarily associated with itching. This condition tends to run in families. Emotional stress, oily skin, infrequent shampooing, and weather conditions may all increase a person's risk of developing seborrheic eczema. One type of seborrheic eczema is also common in people with AIDS.
**Nummular eczema**

Nummular eczema (nummular dermatitis) is characterized by coin-shaped patches of irritated skin—most commonly located on the arms, back, buttocks, and lower legs—that may be crusted, scaling, and extremely itchy. This form of eczema is relatively uncommon and occurs most frequently in elderly men. Nummular eczema is usually a chronic condition. A personal or family history of atopic dermatitis, asthma, or allergies increases the risk of developing the condition.

**Neurodermatitis**

Neurodermatitis, also known as lichen simplex chronicus, is a chronic skin inflammation caused by a scratch-itch cycle that begins with alocalized itch (such as an insect bite) that becomes intensely irritated when scratched. Women are more commonly affected by neurodermatitis than men, and the condition is most frequent in people aged 20-50. This form of eczema results in scaly patches of skin on the head, lower legs, wrists, or forearms. Over time, the skin can become thickened and leathery. Stress can exacerbate the symptoms of neurodermatitis.

**Stasis dermatitis**

Stasis dermatitis is a skin irritation on the lower legs, generally related to the circulatory problem known as venous insufficiency, in which the function of the valves within the veins has been compromised. Stasis dermatitis occurs almost exclusively in middle-aged and elderly people, with approximately 6%-7% of the population over age 50 being affected by the condition. The risk of developing stasis dermatitis increases with advancing age. Symptoms include itching and/or reddish-brown discoloration of the skin on one or both legs. Progression of the condition can lead to the blistering, oozing skin lesions seen with other forms of eczema, and ulcers may develop in affected areas. The chronic circulatory problems lead to an increase in fluid buildup (edema) in the legs. Stasis dermatitis has also been referred to as varicose eczema.

**Dyshidrotic eczema**

Dyshidrotic eczema (dyshidrotic dermatitis) is an irritation of the skin on the palms of hands and soles of the feet characterized by clear, deep blisters that itch and burn. The cause of dyshidrotic eczema is unknown. Dyshidrotic eczema is also known as vesicular palmoplantar dermatitis, dyshidrosis, or pompholyx. This form of eczema occurs in up to 20% of people with hand eczema and is more common during the spring and summer months and in warmer climates. Males and females are equally affected, and the condition can occur in people of any age.
How is eczema diagnosed?

To diagnose eczema, doctors rely on a thorough physical examination of the skin as well as the patient's account of the history of the condition. In particular, the doctor will ask when the condition appeared, if the condition is associated with any changes in environment or contact with certain materials, and whether it is aggravated in any specific situations. Eczema may have a similar appearance to other diseases of the skin, so the diagnosis is not always simple. In some cases, a biopsy of the skin may be taken in order to rule out other skin diseases that may be producing signs and symptoms similar to eczema. If a doctor suspects that a patient has allergic contact dermatitis, allergy tests, possibly including a skin "patch test," may be carried out in an attempt to identify the specific trigger of the condition.

There are no laboratory or blood tests that can be used to establish the diagnosis of eczema.

What is the treatment for eczema?

The goals for the treatment of eczema are to prevent itching, inflammation, and worsening of the condition. Treatment of eczema may involve both lifestyle changes and the use of medications. Treatment is always based upon an individual's age, overall health status, and the type and severity of the condition.

Keeping the skin well hydrated through the application of creams or ointments (with a low water and high oil content) as well as avoiding over-bathing is an important step in treatment. Lifestyle modifications to avoid triggers for the condition are also recommended.

Corticosteroid creams are sometimes prescribed to decrease the inflammatory reaction in the skin. These may be mild-, medium-, or high-potency corticosteroid creams depending upon the severity of the symptoms. If itching is severe, oral antihistamines may be prescribed. To control itching, the sedative type antihistamine drugs (for example, diphenhydramine [Benadryl], hydroxyzine [Atarax, Vistaril], and cyproheptadine) appear to be most effective.

In some cases, a short course of oral corticosteroids (such as prednisone) is prescribed to control an acute outbreak of eczema, although their long-term use is discouraged in the treatment of this non life-threatening condition because of unpleasant and potentially harmful side effects. The oral immunosuppressant drug cyclosporine has also been used to treat some cases of eczema. Ultraviolet light therapy (phototherapy) is another treatment option for some people with eczema.
Finally, two topical (cream) medications have been approved by the U.S. FDA for the treatment of eczema: tacrolimus (Protopic) and pimecrolimus (Elidel). These drugs belong to a class of immune suppressant drugs known as calcineurin inhibitors. In 2005, the FDA issued a warning about the use of these drugs, citing studies in animals that showed a possible association between use of these drugs and the development of certain types of cancer. It is recommended that these drugs only be used as second-line therapy for cases that are unresponsive to other forms of treatment, and that their use be limited to short time periods, and the minimum time periods needed to control symptoms. Use of these drugs should also be limited in people who have compromised immune systems.