What is atopic dermatitis (AD)?
Atopic dermatitis (AD), a form of eczema, is a chronic skin disorder characterized by severe itching. “Atopic” refers to a tendency to develop allergies, such as hayfever and asthma. “Dermatitis” means inflammation of the skin. Most commonly, AD consists of dry, red, itchy skin on the face, on the inside of the elbows and behind the knees, but it can occur on other parts of the body. Scratching causes symptoms to worsen and may lead to crusted, weepy lesions that become infected. Symptoms tend to come and go over a patient’s lifetime but may resolve completely with time.

Who gets atopic dermatitis and why?
AD most commonly occurs in infants and young children, but may occasionally be seen in adults. City living and dry climates may increase the likelihood of AD. As children age, AD may improve or even resolve; however, patients with a history of AD may always have “sensitive” skin.

The cause of AD is unknown, but recent studies suggest a genetic link. Other likely factors include environmental exposures and alterations of immunity (the body’s system that fights infections and many diseases). Atopic dermatitis is considered part of the “atopic triad,” along with asthma and hayfever, all of which may run in families. Atopic dermatitis is not contagious and cannot be passed to others. However, people with AD should not get the smallpox vaccine, as it may lead to serious complications and infection.

How is atopic dermatitis diagnosed at the lab?
Atopic dermatitis is a form of eczema, or inflammation of the skin, and may resemble other forms of eczema, such as allergic contact dermatitis. Diagnosis is based on the clinical evaluation of the patient’s history, family history and physical examination. The patient’s healthcare provider may ask when the symptoms first occurred, what exacerbates the rash and what makes it better, whether any family members have similar skin problems, and similar diagnostic questions.

Although no specific test can be used to diagnose AD, testing for allergies by a dermatologist or an allergist may be helpful. Occasionally, the healthcare provider may need to take a small sample of skin to be examined under the microscope by a pathologist, preferably one with a subspecialty in dermatological pathology, in order to distinguish AD from other skin diseases.

A variety of irritants and allergens may make atopic dermatitis worse. Allergens are substances that can cause an allergic-type reaction. These may be foods (such as eggs, dairy, peanuts, fish, soy products, or wheat), plants, animals (including dog and cat dander), or even airborne mold, pollen, or dust mites.

Other irritants that may cause the skin to become red, dry, and itchy or to burn include:
- Wool or man-made fibers
- Soaps and cleaners
- Some perfumes and makeup
- Chemicals, such as chlorine, detergents, and solvents
- Dust or sand
- Cigarette smoke
- Excessive sweating

Stress, anger, and other emotional states may aggravate atopic dermatitis but haven’t been shown to cause it. Climactic conditions, including low humidity and hot temperatures, may lead to flares of AD. Hot baths and showers may also make AD worse. Skin infections, particularly bacterial infections, may worsen or may be a complication of AD.
How is atopic dermatitis treated?

The goals of AD treatment are to heal the skin and to prevent flares. Healing the skin often requires topical medications, such as creams or ointments that medicate as well as moisturize the skin. Topical medications include corticosteroid or other medications, usually applied two to three times daily. In severe cases, oral medications to suppress the immune system may be required. If there are signs of an infection of the skin, antibiotics will be used to treat bacterial infections. Anti-itching medications, including anti-histamines, are helpful to allow patients to sleep. Occasional severe cases may respond to artificial ultraviolet light therapy, sometimes used in combination with a medication.

In preventing flares, AD patients should avoid all known irritants and allergens, moisturize frequently (particularly immediately following a bath or shower), and maintain a gentle skin care regimen.

Research is currently underway searching for a genetic cause for AD, as well as studying the biochemical and immunologic features of the disease, which may lead to newer treatments.

Learn more!

nationaleczema.org
Informational articles and a national support network dedicated to helping people understand and manage atopic dermatitis.

www.talkhealthpartnership.com/talkeczema
International online community dedicated to providing the latest health information and support for eczema and related conditions.

itchylittleworld.com
Blog with natural remedies for the treatment of eczema, allergies, and asthma.