ECZEMA (Atopic Dermatitis)

WHAT IS IT?
Eczema is a chronic inflammatory skin condition that can cause dry, itchy, scaly skin. It is also known as atopic dermatitis. "Atopic" refers to someone who is likely to develop allergies, and "dermatitis" refers to skin that is inflamed and irritated. Individuals prone to atopy are at higher risk for developing eczema, environmental allergies, and/or asthma.

HOW COMMON IS IT?
Eczema affects both adults and children but is more common in children. About 11-15% of children in the United States have this condition. Symptoms usually appear by the 5th birthday and improve with age. However, about 50% of individuals continue to have symptoms into adulthood.

WHAT CAUSES IT?
The exact cause is not known, but genetics appears to play an important role. Research has found that most people with eczema have a genetic abnormality in the epidermis, the outermost layer of the skin, that results in decreased barrier function. Eczema also tends to run in families, with 70% of affected individuals reporting a family history of atopy. Other causative factors include changes in the immune response and in normal skin flora.

Contrary to popular belief, environmental and food allergies do not seem to be causative factors in the development of eczema. However, allergies may contribute to symptoms in a subset of patients with severe eczema.

WHAT ARE COMMON TRIGGERS?
Dry skin is the biggest culprit that triggers or aggravates eczema. Other common triggers include:
- Cold or dry environments
- Sweating
- Rapid changes in temperature
- Household cleaners, soaps, detergents, etc.
- Perfumes, cosmetics
- Wool, lanolin (wool fat), synthetic fibers
- Dust, sand, cigarette smoke
- Emotional stress

WHAT ARE THE SYMPTOMS?
Eczema typically presents as patches of dry, itchy skin:
- The skin can become red, scaly, or crusted depending on the severity of symptoms.
- Repeated scratching can lead to thickening and darkening of the skin.
- Common sites for eczema include the skin in the elbow creases, behind the knees, behind the neck, on the backs of the hands and/or feet, and on the face and eyelids.
- Severe eczema may cover most of the body. However, it is uncommon to see symptoms in the armpit, groin, or buttocks areas.
- The rash may also occur in round coin-shaped patches (called nummular eczema).
- Eczema is not contagious. However, excessive scratching can lead to a bacterial skin infection, characterized by worsening redness, pain, swelling, fever, and/or pustular drainage.

HOW IS IT DIAGNOSED?
Eczema is usually diagnosed based upon its appearance and associated symptoms & conditions.

WHAT IS THE TREATMENT?
Since eczema is a chronic condition, treatment is aimed at limiting the number, duration, and severity of eczema flares. Symptoms can be controlled by developing a skin care plan specific to your needs. Key components of any plan include keeping the skin well-moisturized and avoiding triggers.

PREVENTIVE SKIN CARE
- Bathing tips to avoid dry skin:
  - Don't bathe or shower more than once a day. Bathe less often if symptoms are severe.
  - Limit baths and showers to 5-10 minutes. Use lukewarm water as hot water is too drying.
- Use a small amount of mild soap, such as unscented Dove, Oil of Olay, Cetaphil, or Basis.
- Do not scrub vigorously with a washcloth or sponge, as this can irritate the skin.
- After bathing, dry your skin by patting gently with a towel. Avoid rubbing the skin.

**Moisturize, moisturize, moisturize!**
- **Apply moisturizer immediately after a shower (ideally within 3 minutes) and after washing your hands.** Moisturizers work by trapping water in the skin; therefore, they are most effective when applied to damp skin.
- **Moisturize at least 2 times a day.**
- **Creams and ointments work better than lotions.** Lotions have a high water content and may actually worsen dry skin as a result of evaporation. Also avoid products containing alcohol.
  - **Thick creams** such as Cetaphil, Eucerin, and Nutraderm are good choices.
  - **Ointments** are thicker and often more effective, especially in the winter. Examples include petroleum jelly, Vaseline, and Aquaphor. Avoid products containing lanolin (ie. Aquaphor) if you are allergic to wool.
- **If dry skin persists** despite the above measures, apply moisturizer to the problem area, then cover it with a damp cotton garment (eg. gauze, glove, sock, etc.) covered by a dry garment. Change this dressing every few hours during the day, or use it overnight.

**Treat your skin gently.**
- Avoid fabric softeners, bubble baths, perfumes, colognes, sprays, powders, etc.
- Use “fragrance-free” (not just “unscented”) soaps and detergents. Choose liquid laundry detergents, and use a smaller amount than the label recommends. Add an extra rinse to the wash cycle if needed.
- Wear absorbent fabrics and clothing that is not rough on the skin. Cotton or a cotton blend is a good choice, while wool and silk may be more irritating.
- Avoid tight clothing and waterproof fabrics. However, use rubber gloves when washing dishes to protect your skin. Wear cotton gloves under the plastic gloves to avoid skin irritation and to soak up sweat.

**Other self-care measures:**
- Try not to scratch! Instead pat, firmly press, or grasp itchy skin, and apply soothing lubricants. Cool wet compresses can also help.
- Avoid triggers, like sweating and overheating. For extreme dryness, a humidifier or vaporizer may help. Keep the appliance clean to prevent the growth of mold.
- Reduce stress, which can worsen eczema. If you need help managing your stress, talk to staff at Student Health, University Counseling Services, and/or the Wellness Resource Center.

**MEDICATIONS**
- **Antihistamine medications** can help reduce itching. Non-drowsy formulations (eg. Zyrtec, Claritin, Allegra) are good for daytime symptoms. Sedating antihistamines (eg. Benadryl) can be taken at bedtime for night-time itching.
- **Topical corticosteroid preparations** are the mainstay of eczema therapy. They are used during flares to control inflammation and itching.
  - Steroid creams, lotions, and gels are available in different strengths. It is best to use the lowest effective dose for as short a time as possible. Generally nothing stronger than a low-dose steroid cream should be used on the face and neck.
  - Only a thin layer of steroid medication is needed to be effective. Excessive or long-term use can cause thinning/whitening of the skin and stretch marks.
  - Medicated creams and ointments should be applied to affected areas only. Moisturizers are applied to the whole body. If both are being used, apply the moisturizer last.
- A short course of corticosteroid pills taken by mouth may be used to treat severe eczema flares.
- “Immunomodulator” medications (eg. Elidel cream, Protopic ointment) are effective for moderately severe cases of eczema. Due to concerns about the long-term safety of these medications, the FDA recommends their use only in patients who fail or cannot tolerate other treatment options.
- A dermatology referral to discuss other medications and ultraviolet light treatments may be recommended for patients with severe symptoms.