Allergies and Atopic Dermatitis

Multidisciplinary Atopic Dermatitis Program
Allergic march

- Eczema is not just a rash, it can affect your kids long term.
- Many patients with eczema will go on to develop allergies. Doctors commonly refer to this as the **allergic march**.
- This includes food allergies, environmental allergies (i.e. hay fever), and asthma.

**BOTTOM LINE:** ALLERGIES DEVELOP MORE COMMONLY IN PEOPLE WITH ECZEMA
Why test for allergies?

- Studies show up to 80 percent of children with eczema develop asthma and/or environmental allergies later in childhood.
- Managing allergies can be important
  - Both in avoiding allergens and minimizing allergic reactions
  - This may be part of comprehensive eczema care
- There are various treatment options available
The barrier is broken...

- In eczema, the skin is dry and more open making it easier for allergens to enter and activate the immune system.
- In turn, allergies can drive the eczema.
- It is very important to adequately treat the eczema lesions to cool down inflammation.
However, patients may have allergic reactions that do not influence eczema and vice versa. Eczema flares can happen that are not necessarily related to allergies. Furthermore, if allergies are driving the eczema after age 4 it is unlikely to be food-related and more likely to be due to the environment.
**Sensitization versus allergy**

**POSITIVE TEST = SENSITIZATION, BUT POSITIVE TEST ≠ TRUE ALLERGY**

- True allergy is a positive test PLUS an allergic reaction after exposure to the allergen. This means you can have a positive test to something that you are not allergic to.

- Sensitization (positive test) does not necessarily lead to symptoms. Whereas, a true allergy produces symptoms every time one comes into contact with the allergen!
Types of Allergies
Food Allergies

- Infants with history of moderate to severe eczema have a higher risk of developing food allergies.
- If food allergies are playing a part in your eczema, it is typically before the age of 4.
- Most common: egg, nuts, and milk, soy, wheat.
- Early exposure to these foods may protect you from forming allergies to them.
- Symptoms can range from mild to life-threatening and occur immediately after eating the food.

Symptoms may include: rash, swelling, vomiting, and trouble breathing.
Anaphylaxis

- A serious form of allergy can develop known as anaphylaxis.

- This all-body allergic response can lead to a worsening of symptoms (hives, swelling, difficulty breathing, nausea/vomiting)

- Immediate medical attention is needed

- Patients with history of anaphylaxis need to have epinephrine with them at all times
Environmental allergies

- Environmental allergies are an immune response to something in your surroundings.

- Examples include:
  - Dust mites
  - Animal dander (cat, dog)
  - Grasses, trees, weed pollens

- Some children experience worsening of their eczema with exposure to environmental allergies.
Allergic contact dermatitis

- Children with eczema have a high risk of developing allergic contact dermatitis.
- Some patients are allergic to things that come into contact with the skin. This can include: chemicals, metals and even medications.
Allergic Contact Dermatitis

- This is a different type of rash than hives.
  - It is delayed—it takes 24 to 72 hours to occur after contact.
  - The rash only occurs at the site of contact.
  - It lasts longer—days to weeks.
- This is an important diagnosis for your doctor to keep in mind as it can worsen or even sometimes be confused with eczema.

This is likely an allergic reaction to her necklace.
How are allergies diagnosed?

- Diagnosis is typically based on the history you provide to the doctor.
- However, further testing of the skin or blood may be useful in certain cases.
- Positive testing can be related to a true allergy, but sometimes it is not.
Types of Testing
Testing

- No single test is perfect at accurately diagnosing patients with food and environmental allergies. In addition to the history provided by patients and family, testing may include:
  - *Skin Prick testing*
  - *Specific IgE testing (blood)*
  - *Food challenges in the office*
  - *Patch testing*
Skin prick testing

Process

- Small plastic applicators with individual allergens (for example, common things in the environment and foods) are scratched onto the back.

- The skin is then checked approximately 20 minutes later to check for positive reactions.
  - Positive reaction is a wheal which is an itchy bump with surrounding red rash.

- Can suggest allergies. Positive test alone does not definitely mean allergy.
Specific IgE testing

- Blood test
- Assesses whether the body has made allergic type antibodies against specific allergens (food or environmental).
- Positive test alone does not mean allergy
Oral Food Challenges

- In some cases, an allergist will recommend an oral food challenge.
- This is conducted under strict medical supervision, the patient is fed tiny amounts of the suspected trigger food in increasing doses over a period of time and monitored for a reaction.
- This test is helpful when the patient history is unclear or if the skin or blood tests are inconclusive. It also can be used to determine if an allergy has been outgrown.
Patch testing

- Adhesive patches with individual allergens are placed on the back.
- The stickers remain in place for 2 days and then are removed. Positive reactions include redness with bumps or blisters underneath where the chemical was placed. They are checked at day 2 and again on day 4.
- Can be helpful in suggesting allergies contributing to eczema.
What does a positive patch test mean?

- Positive test alone does not mean allergy – you may just be sensitive to the chemical.

- A positive test may not be important in terms of your eczema. For a positive result to be relevant to your eczema:
  - Need to have been exposed to the chemical before
  - Reaction needs to occur at the location that is in contact with the chemical
  - Need to have symptoms of an eczema flare when exposed to it

- The things you notice cause flares at home will be helpful in guiding testing
Types of Treatment
Antihistamines

- Antihistamines (i.e. Zyrtec, Benadryl)
  - May be used to help allergies, like hay fever. They may be prescribed for itching.
  - Some antihistamines can make people sleepy; these may sometimes help with sleep
  - If you have allergies and eczema then this type of medicine might be helpful for you
Treatment for Environmental Allergies

- Environmental control: avoiding known triggers
- Medications for symptom relief
- Immunotherapy (allergy shots and tablets): gradually exposes people to larger and larger amounts of allergen to help the body respond differently, useful for some types of allergies.
Treatment for Food Allergies

• Avoidance of triggers
• Once you have been diagnosed with a true food allergy you should be prescribed epinephrine and taught how to use.
  • Anaphylaxis plan: instructions on preventing, recognizing and managing food allergies (a copy needs to be given to school)
• Oral immunotherapy: involves giving increasing amounts of food allergen under medical supervision gradually over time.
Treatment for Allergic Contact Dermatitis

- Avoidance of the substance that causes the reaction
- Using alternative products that are less likely to cause reaction
- Topical steroids and/or antihistamines as needed for symptom relief
- In more severe cases, you may be prescribed a short course of oral steroids
What does this all mean?

- Eczema patients frequently develop allergic disease.
- Young children with moderate to severe eczema should be considered for food allergy evaluation if they have had reactions to food or persistent eczema despite good topical therapy.
- Patients may have allergic reactions that do not influence eczema and vice versa.
- Allergy counseling/testing may help to identify triggers for eczema and provide information on what to avoid.
Summary

● The goal is to have minimal eczema rashes, very little itch, and sleep that isn’t disturbed by itching or scratching.

● We work toward this goal by using good skin care, avoiding triggers, and using medicines regularly or as needed to minimize the eczema!

● There are a lot of things we can do to treat your eczema, get it under control, and keep it under control.

● Eczema is complicated. If you have questions, then please ask!

● You can read more about eczema at www.nationaleczema.org or searching “Rady” and “Eczema” (https://www.rchsd.org/programs-services/dermatology/eczema-and-inflammatory-skin-disease-center)