

Allergies and Atopic Dermatitis

Multidisciplinary Atopic Dermatitis Program (MADP) Clinic

Allergic March

- Eczema is not just a rash – it can have long-lasting effects
- Many patients with eczema will go on to develop allergies
 - This is what doctors refer to as the *allergic march*
 - If eczema or allergies aren't treated, it can lead to sensitization
- This includes food allergies, environmental allergies (i.e. hay fever), and asthma

Dry Skin

Begins at birth

Eczema/Atopic Dermatitis

First few weeks or months of life

Food Allergies

First few months or first few years of life

Nasal Allergies

Around 2-4 years of life

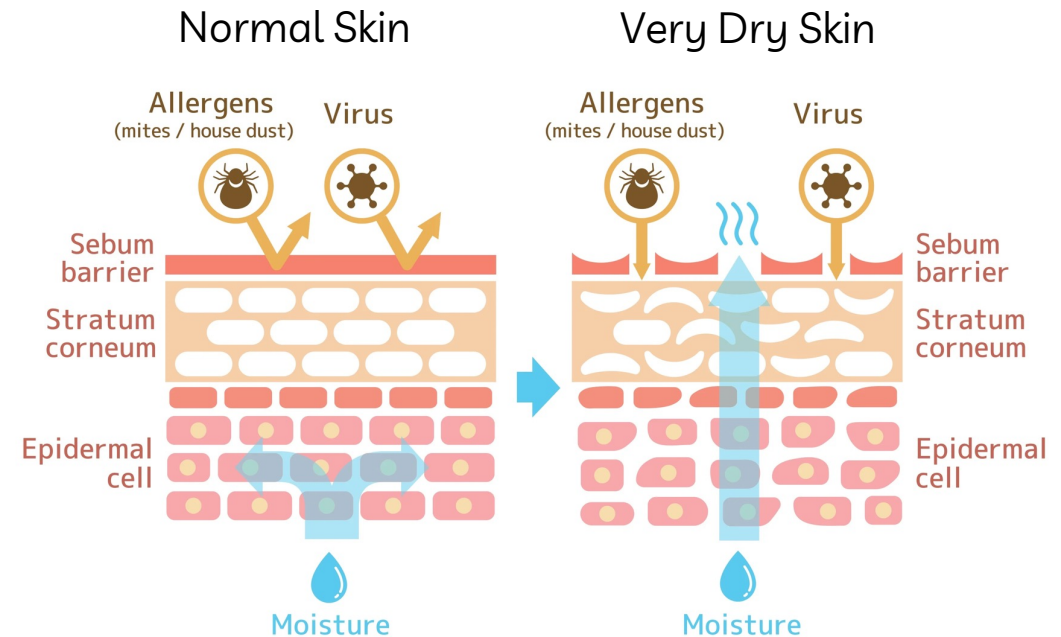
Asthma/Rhinitis

First few years of life

Allergies develop more commonly in people with eczema

Why Test for Allergies?

- Many children with eczema may develop asthma and/or environmental allergies later in childhood
- Allergies play a role in eczema
 - Allergens can enter broken barrier more easily and activate immune system
- Important to manage allergies
 - Avoid allergens and minimize allergic reactions
 - Understand relation to eczema care
 - Cool inflammation with proper treatment



Patients with eczema have dry skin

Allergies and Eczema: Always Related?

Eczema is a big risk factor for allergies

However:

- Some allergic reactions don't influence eczema (and vice versa)
- Eczema flares may not be related to allergies
- After age 4, eczema-driven allergies more likely due to environment allergens



Sensitization vs Allergy

- **Positive Test = Sensitization**

- Sensitization - body becomes *sensitized* to a particular substance
 - Does not necessarily lead to symptoms
 - Skin prick and blood testing may not be positive

- **Positive Test ≠ True Allergy**

- Body reacts whenever we ingest food or are exposed to environment
- Can have positive test to something you're not allergic to

- **True Allergy**

- Produces symptom whenever exposed/ingested
- Positive test **AND** allergic reaction when exposed





Types of Allergies

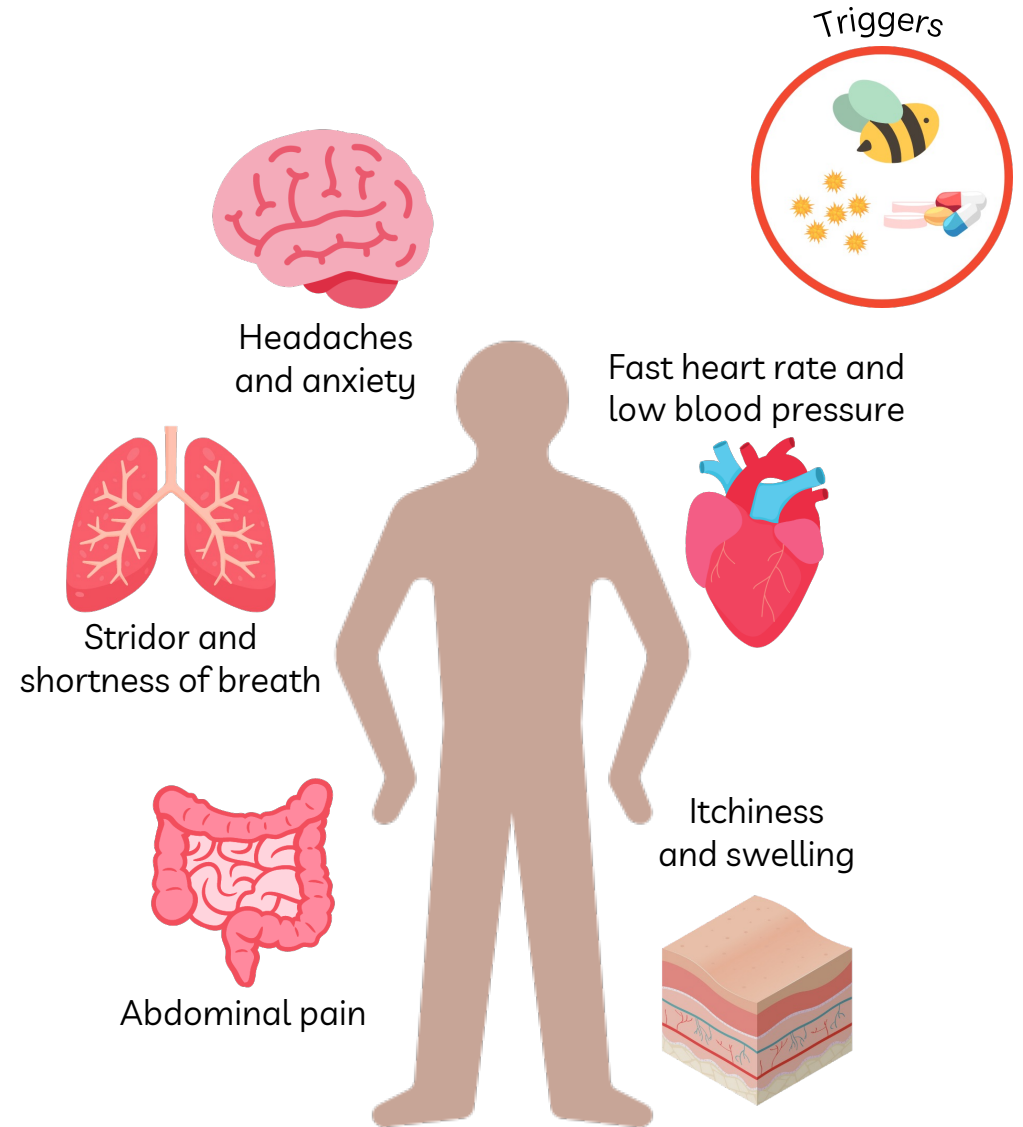
Food Allergies

- Infants with history of moderate to severe eczema at higher risk
- **Early food introduction may prevent allergies**
- Most common food allergens
 - Eggs, peanut, tree nuts, milk, soy, fish, shellfish, sesame, and wheat
- **Symptoms**
 - Rash, swelling, vomiting, and trouble breathing
 - Range from mild to life-threatening
 - **Generally occur immediately after eating**



Anaphylaxis

- **Immediate medical attention needed**
- Serious form of allergic reaction
- Whole-body allergic response
 - Leads to worsening of symptoms
 - Hives, swelling, difficulty breathing, nausea/vomiting



Symptoms of Anaphylaxis

Environmental Allergies

- Body's immune response to surroundings
 - Dust mites
 - Animal dander (cat, dog)
 - Grasses, trees, weed pollens
- *Increased exposure to environmental allergens may worsen eczema symptoms*



Other Environmental Allergies

- Smoking
- Pollution
- Wildfires

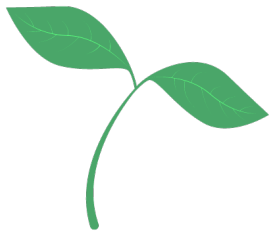


- *Exposure may trigger eczema flares and exacerbate patients' allergies and skin condition*

Allergic Contact Dermatitis

- Children with eczema have higher risk of developing allergic contact dermatitis
- Allergic reaction may occur when skin comes in contact with objects
 - Chemicals, metals, some medications

Many times, the rash will be in localized areas



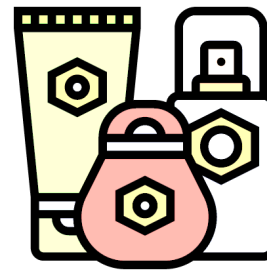
Plants



Nickel



Occupational
Irritants



Cosmetics
and Perfumes



Topical
Medications

How Are Allergies Diagnosed?

- Patient history
- Skin testing
- Lab blood draws

Remember: Positive testing does not always mean it is a true allergy



Test for food and environmental allergies if you have moderate to severe eczema



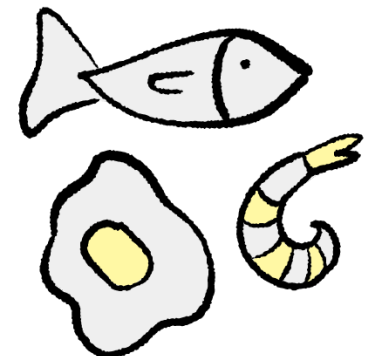


Types of Testing



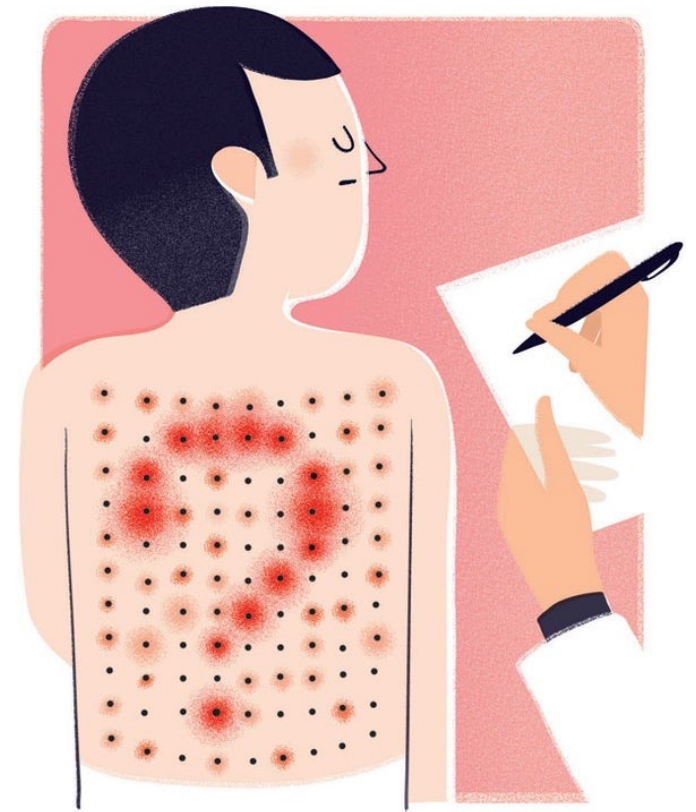
Testing

- No single test is perfect in accurately diagnosing food or environmental allergies
- Testing may include
 - Skin prick testing
 - Specific IgE testing (blood)
 - Food challenges (in office)
 - Patch testing



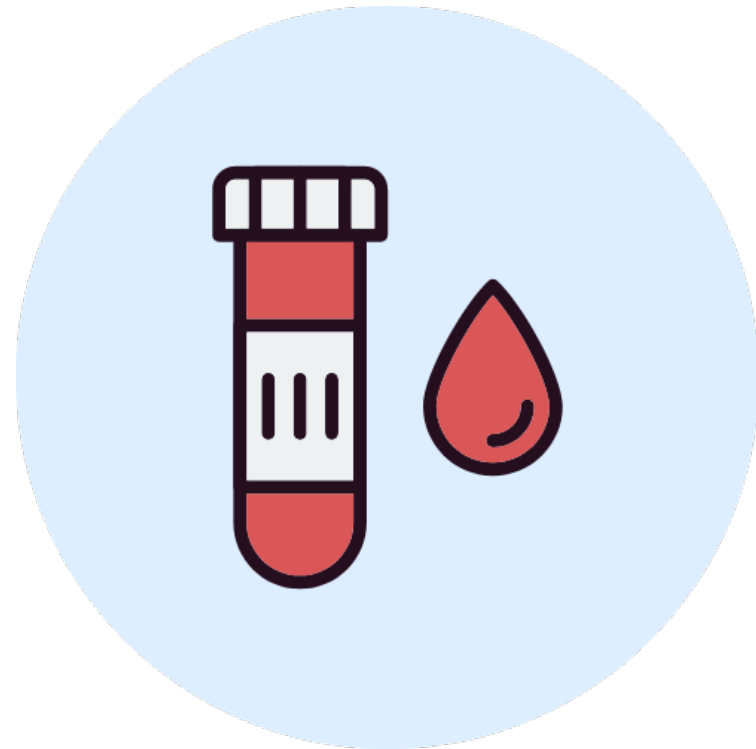
Skin Prick Testing

- Small, plastic applicators with individual allergens scratched on back
 - For example, common environmental or food substances
- Wait 20 minutes for body to react
- Positive reaction occurs when a wheal forms
 - **Wheal:** An itchy bump surrounded by red rash
- *May suggest allergies; positive test alone does not definitely mean allergy*



Specific IgE Testing

- Blood test
- Used to assess if body made antibodies against specific allergens
 - Food or environmental
- *Positive test alone does not mean allergy*



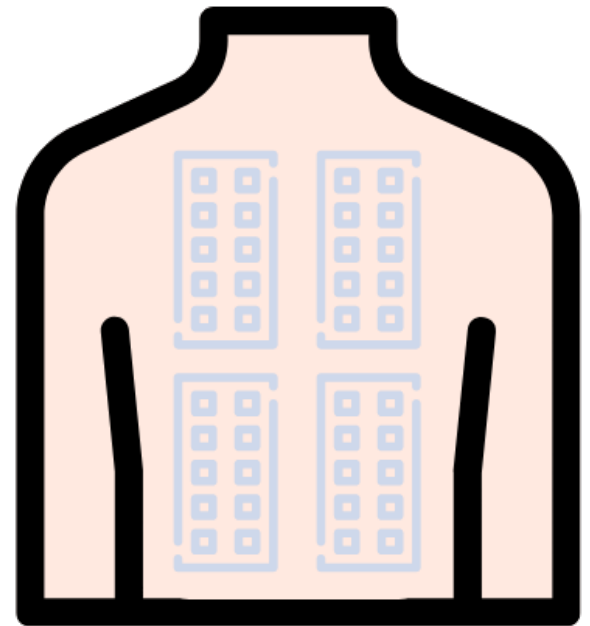
Oral Food Challenges

- Conducted under ***strict medical supervision***
- Patient fed tiny amounts of suspected food trigger
 - Dose increases over time
 - Carefully monitored by medical staff for reaction
- When useful:
 - Patient history unclear
 - Skin/blood tests inconclusive
 - Determine if allergy outgrown




Patch Testing

- Used to test for contact allergic reactions
 - Latex, medication, fragrance, hair dye, metals
- Adhesive patches with individual allergens placed on back
- Patches stay attached for total of *3 days*
 - Placed on Monday, removed and checked on Wednesday, re-checked on Friday
 - Positive reaction: redness with bumps or blister from allergen
- Can be helpful in suggesting contact allergies contributing to eczema





Understanding a Positive Patch Test

- A positive test may just be a positive test or may be clinically important
 - May not be relevant in terms of eczema unless:
 - Has been exposed to chemical in past
 - Reaction occurs at location of chemical contact
 - Exposure causes signs and symptoms of eczema
 - Keep in mind what causes flares at home or work – this will help with testing
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Types of Treatment

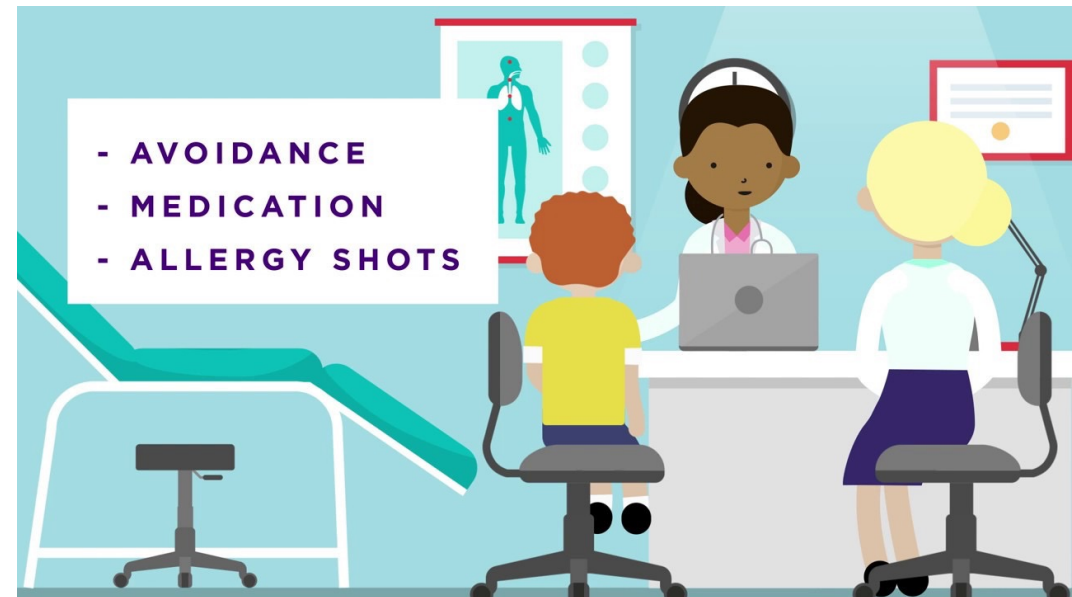
Antihistamines

- Examples:
 - Zyrtec (cetirizine)
 - Benadryl (diphenhydramine)
 - Atarax (hydroxyzine)
- Used to help allergies, like hay fever, itchy eyes, and hives
 - Does not directly address itching caused by eczema
 - While commonly prescribed, they are of limited help for eczema associated itching
- Some can make people sleepy (sometimes taken to help with sleep)
- Beneficial for those with allergies and eczema



Treatment for Environmental Allergies

- Environmental control: avoiding known triggers
- Medications for symptom relief
- Immunotherapy
 - Allergy shots and tablets
 - Gradual exposure to increasing amounts of allergen
 - Retrains immune system



Treatment for Food Allergies

- Avoid triggers
- Epinephrine for anaphylaxis
 - **Anaphylaxis Plan**
 - Preventing, recognizing, and managing food allergies
 - Copy of allergies given to school
 - Keep 2 self-administered epinephrines with you at all times – one **twin pack** at school, one **twin pack** at home
- Oral immunotherapy
 - Gradually increasing amounts of food allergen under **medical supervision** over time



Treatment for Allergic Contact Dermatitis

- Avoid substance that causes reaction
 - Use alternative products
- Topical steroids and/or antihistamines
 - As needed for symptom relief
- Severe cases
 - Prescribed course of oral steroids



What Does This All Mean?

- Eczema patients frequently develop allergic disease
- Young children with moderate to severe eczema should consider food allergy evaluation
 - When helpful
 - Reactions to food in the past
 - Eczema persists despite good topical therapy
- Environmental allergies can be related to eczema flares and are important to be aware of
- Allergy counseling/testing may help identify triggers for eczema or allergies unrelated but important to recognize



Summary

- **Goal**

- Minimal eczema rashes
- Less itch
- Undisturbed sleep from itching or scratching

- Many ways to treat and control eczema

- Read more about eczema

- www.nationaleczema.org

- Search “Rady” and “Eczema”

- <https://www.rchsd.org/programs-services/dermatology/eczema-and-inflammatory-skin-disease-center>

- **Reach goal by**

- Using good skin care
 - Avoiding triggers
 - Using medicines regularly or as needed

Eczema is complicated. Please reach out if you have any questions 😊

