

# FOOD ALLERGIES: CAN IGNORANCE BE BLISS?

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# OUR PATIENT

12 mo old male presents to allergy clinic for evaluation of milk product allergy

- At 9 mo old - severe eczema noted to have improved when mother switched him to soy formula from regular newborn formula
- PCP performs "common allergy blood panel"
- Diagnosed with cow's milk allergy and peanut allergy
- Mother has been avoiding intake of all nuts since this testing was performed



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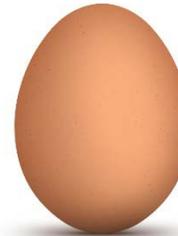
# WHAT ISSUES DOES THIS RAISE?

- What does his prior allergy testing tell us?
- What benefits and limitations has he been subjected to as a result of this testing? Are these limitations a true reflection of his results? How could this have been prevented?
- Should he have been tested in the first place?

# CONTENT OBJECTIVES

- Identify children who should receive testing for food allergies
- Cultivate an awareness of the risks and benefits of testing for food allergies in pediatric patients
- Increase provider confidence in effectively educating patient families regarding food allergies and testing thereof

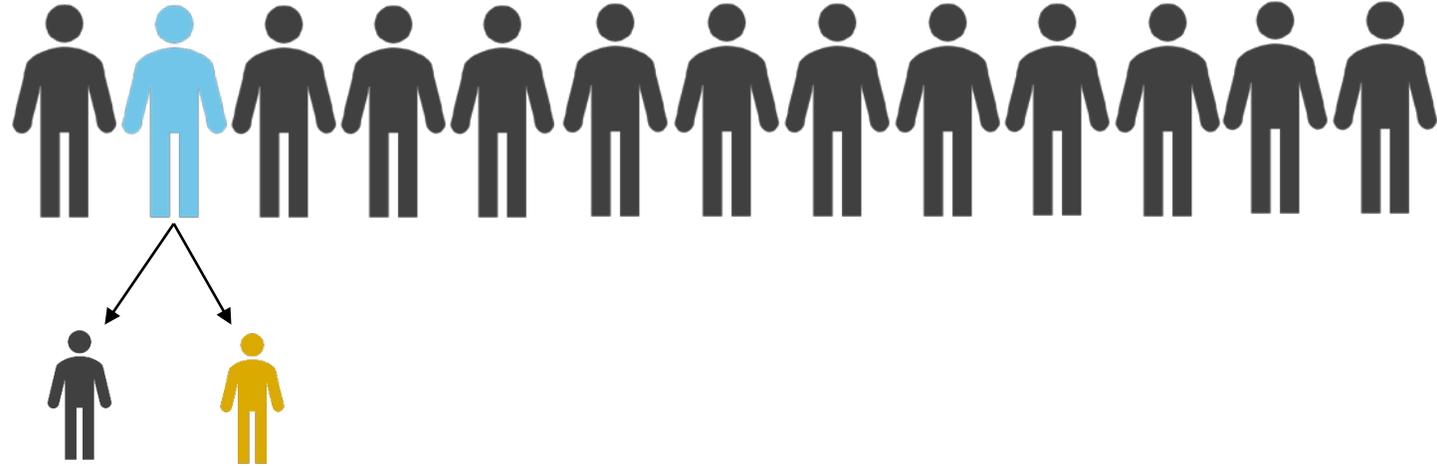
# EPIDEMIOLOGY



(Fleischer 2015, Sicherer 2018, Du Toit 2015, Sampson 2001)

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# EPIDEMIOLOGY



(Bird 2015, Du Toit 2015, Sicherer 2018)

# Children at Risk for Food Allergies

- History of anaphylaxis
- History of allergic symptoms within minutes-hours of ingesting food
- Moderate-severe atopic dermatitis (40%)
  - Severity and likelihood of disease seen to correlate with severity of atopic dermatitis (Silverberg 2014)
- Food-induced wheezing in 6% of asthmatics
- Allergy to another food ie eggs for peanuts  
(Bird 2015, Sampson 2001, Watson 2019)





## OUR PATIENT

Tulane

- History of severe eczema

# TESTING

## Skin prick test

- + Ok for infants
- + Most common by allergists
- Low sensitivity (20-60%) and specificity (30-90%) for food allergens
- Results represent sensitization, not true allergy



## Serum IgE

- + Better in patients with skin disease
- + Can be used for trending
- Less sensitive than skin prick testing
- Again represents sensitization, not true allergy



## Oral challenge

- + Gold standard for testing
- + Exposure levels well-quantified in literature
- Safety considerations in high-risk children



(Wong 2019)

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# Results: So what?

- The **level** truly matters
  - Higher probability of sensitization for higher level – see Sampson *J Allergy Clin Immunol* 2001
- The **specific allergen** is important
- Questions? Concerns? Needing confirmation?  
Consider an allergy referral.



# Our patient

Should he receive further allergy testing? If so, what kind?

Milk IgE 45.9 kU/L

Negative < 0.35 kU/L

# Risks and Benefits of Testing

## Risks

- Positive predictive value of IgE can be poor; reliability can be test-specific
- Loss of tolerance may lead to allergy development
- Overdiagnosis
- Failure to thrive if over-caution

## Benefits

- Avoidance of severe reaction
- Confirmatory documentation of disease
- Possible negation of disease

(Bird 2015, Togias 2017, Fleischer 2015)

# Our patient's final update

- Performed baked milk challenge – tolerated well!
- Plans to continue baked milk muffins at designated frequency for several weeks before slowly attempting to introduce milk in different, more concentrated forms
- Will manage food re-introduction with help of pediatric allergist, sending reports to PCP



# APPLICABLE CHANGES FOR PRACTICE

- Consider food allergy testing in patients at risk
- If testing, be specific
- If testing in primary care clinic positive, consider referral to allergy specialist
- Consider taking time to thoroughly educate families about the results of their child's allergy testing and their implications

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QUESTIONS?

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