FOOD INTOLERANCE OR ALLERGY?

How to Accurately Diagnose and Manage Common Food Concerns

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Learning Objectives

1. Describe current standards of care for food allergy testing and identify common diagnostic pitfalls in primary care practice.
2. Differentiate appropriate and inappropriate testing modalities for food allergy to reduce misdiagnosis and patient harm.
3. Apply evidence-based treatment and management strategies for food allergy that enhance patient safety, confidence, and quality of care.

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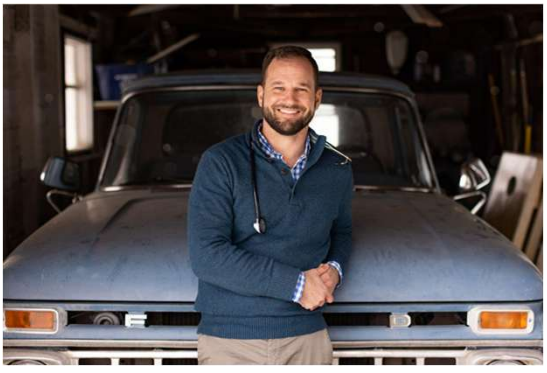
Dr. Neal: Disclosures



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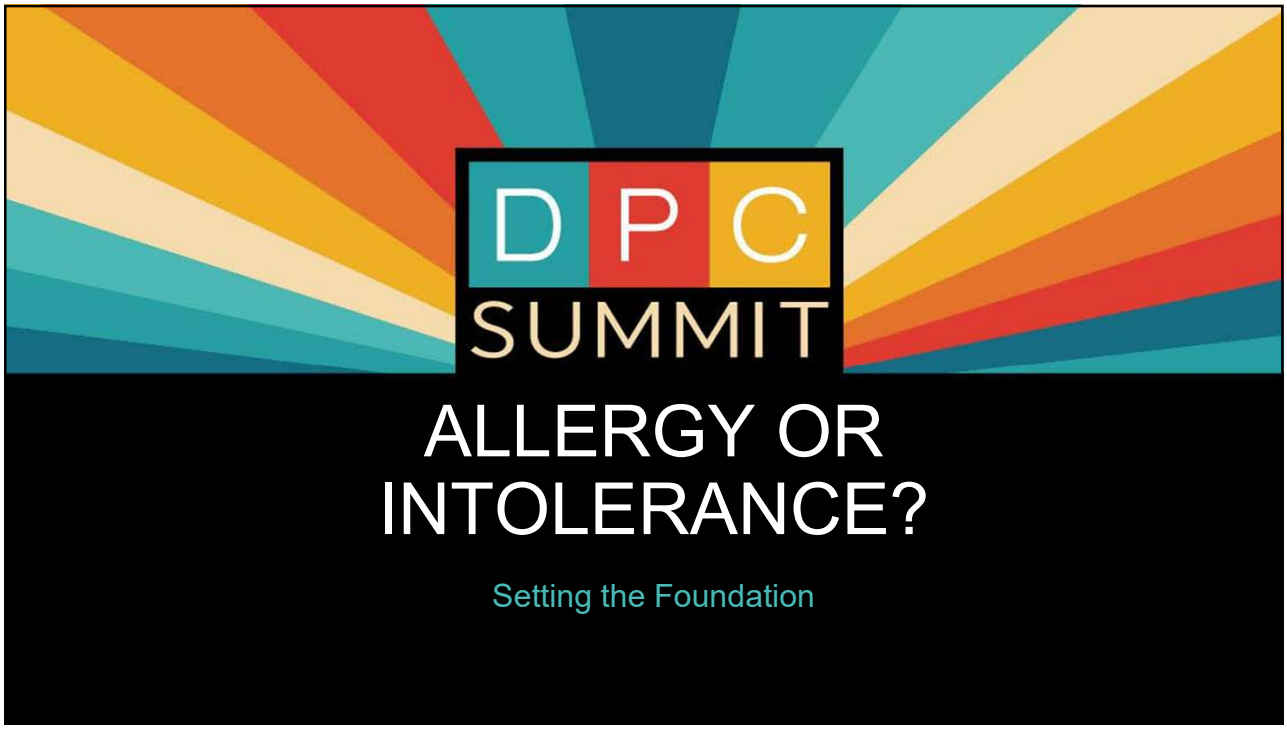

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True Food Allergy vs. Food Intolerance

Food Allergy

- Immune-mediated (IgE, non-IgE, or mixed)
- Reproducible reaction, often rapid onset
- Reaction targets a specific food protein
- Can be life-threatening (anaphylaxis)
- Confirmed by history, testing, and oral food challenge

Food Intolerance

- Non-immunologic (enzymatic, pharmacologic, or other mechanism)
- Reaction may be dose-dependent and delayed
- Often involves a carbohydrate or chemical component of food
- Uncomfortable, but not life-threatening
- No validated allergy test confirms it — diagnosis is clinical

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By the Numbers

- Food allergy affects an estimated 8% of children and 10% of adults in the U.S. (AAAAI)
- Nearly 19% of adults believe they have a food allergy — but only about 11% have a confirmed one (JAMA Network Open)
- Nine foods account for roughly 90% of IgE-mediated reactions (AAFP)
- Confirmed childhood food allergy has risen an estimated 50% between 1997–2011, and again between 2007–2021 (FARE)

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Common Culprits: The Top 9 Allergens

- Milk, egg, peanut, tree nuts, soy, wheat, fish, and crustacean shellfish have long been the recognized major allergens
- Sesame became the 9th federally recognized major allergen under the FASTER Act, effective January 1, 2023
- More than 170 foods have been reported to cause IgE-mediated reactions — but these 9 account for the large majority of cases
- A focused history should always ask about these foods specifically, rather than relying on broad panel testing

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Conditions That Mimic Food Allergy

Non-Immune Mechanisms

- Lactose intolerance — lactase enzyme deficiency
- FODMAP intolerance — carbohydrate malabsorption/fermentation, often with IBS
- Histamine intolerance — reduced diamine oxidase activity
- Food additive reactions — sulfites, MSG, tartrazine

Immune-Related, but Not Classic IgE Allergy

- Celiac disease — autoimmune, HLA-DQ2/DQ8-associated enteropathy
- Non-celiac gluten/wheat sensitivity — symptomatic, without enteropathy or IgE
- Oral allergy syndrome — mild, localized IgE cross-reactivity with pollen
- Eosinophilic esophagitis — non-IgE, chronic antigen-driven inflammation

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Live Content Slide

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Poll: How Many of Your Adult Patients Have a True Food Allergy?

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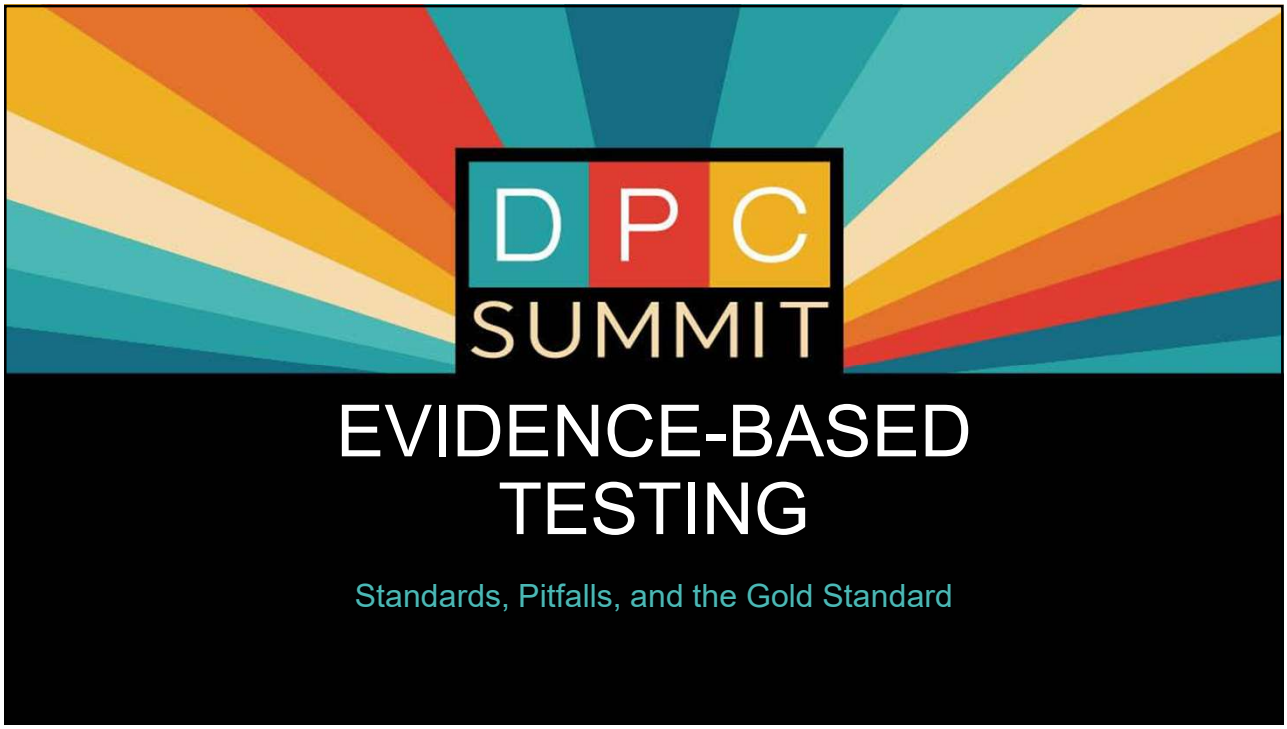

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Skin Prick Testing & Serum-Specific IgE

- Skin prick testing and serum-specific IgE (sIgE) indicate sensitization — not necessarily clinical allergy
- Reported sensitivity is roughly 85%, but specificity is only about 30–60% (AAFP)
- A positive test without a consistent clinical history does not confirm food allergy
- Order testing only for foods the history implicates — broad panel testing increases false positives
- Intradermal testing is not recommended for foods: higher false-positive rate and greater risk of reactions

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The Gold Standard: Oral Food Challenge

- A double-blind, placebo-controlled oral food challenge (DBPCFC) remains the reference standard for diagnosis (AAFP/NIAID)
- Can confirm a suspected allergy, or safely disprove one that no longer needs to be carried
- Must be performed under physician supervision, in a setting equipped to manage severe reactions
- When a challenge isn't feasible, resolution of symptoms after elimination plus a convincing history can support the diagnosis

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Unvalidated & Unproven Tests

- Food-specific IgG/IgG4 testing is not recommended by the AAAAI, ACAAI, CSACI, EAACI, or WAO
- Elevated IgG largely reflects normal food exposure and immune tolerance — not allergy or intolerance
- Unproven testing drives unnecessary elimination diets, added cost, nutritional risk, and reduced quality of life
- Other unvalidated methods — hair analysis, applied kinesiology, cytotoxic/ALCAT testing — lack credible evidence and should not guide diagnosis

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A Practical Diagnostic Algorithm

- Start with a focused allergy history: timing, reproducibility, and the specific food(s) involved
- Order skin prick or sIgE testing only for the suspected food(s) — not a broad panel
- Confirm with an oral food challenge when the diagnosis remains uncertain
- Refer to an allergist for a history of anaphylaxis, need for challenge/skin testing, or symptoms not improving with primary care management

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Case Example: When a Positive Test Isn't the Diagnosis

- A 34-year-old orders a 200-food IgG panel online after months of bloating and fatigue
- The results flag "high reactivity" to 42 foods; she eliminates all of them
- Six weeks later she is still symptomatic — and now nutritionally depleted
- A focused history reveals a simpler pattern: symptoms cluster around dairy and high-FODMAP meals
- Targeted testing for lactose intolerance and a dietitian-supported low-FODMAP trial resolve her symptoms within a month

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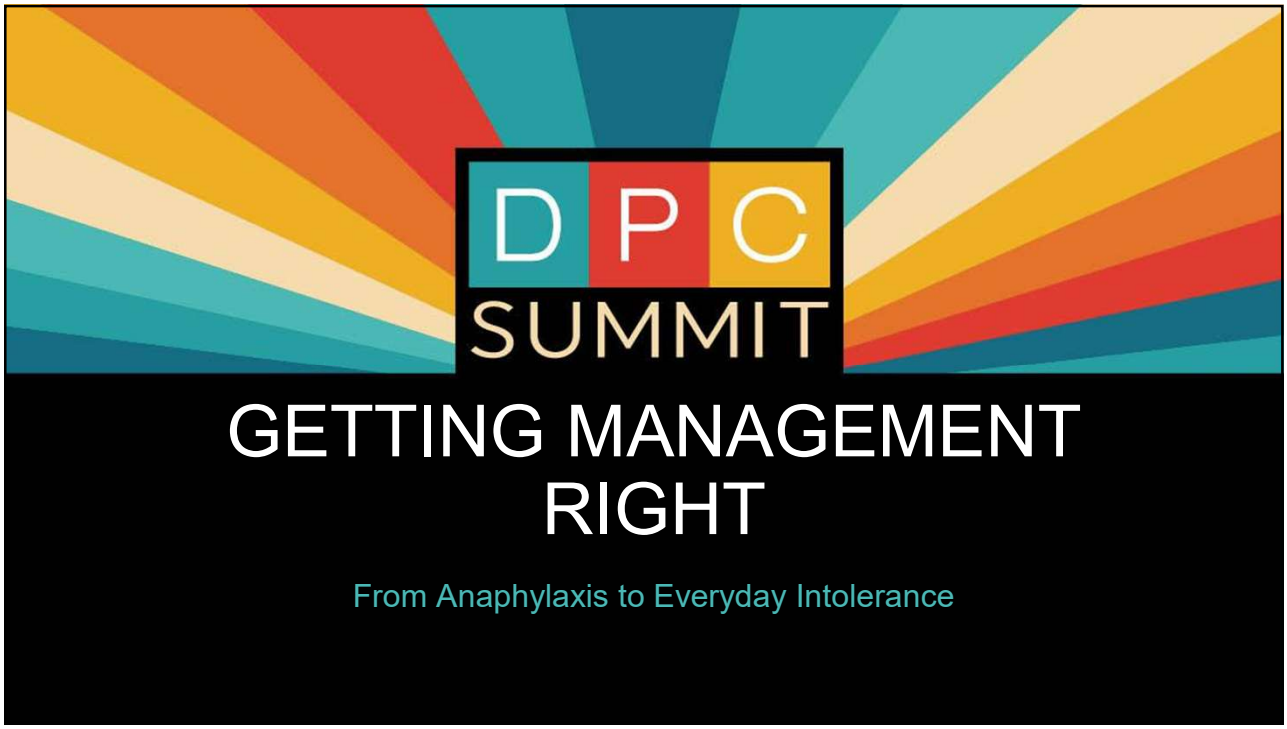

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Confirmed IgE-Mediated Allergy: Core Management

- Strict avoidance of the specific confirmed allergen(s)
- Prescribe an epinephrine auto-injector and train the patient/family on its use
- Provide a written anaphylaxis action plan
- Refer to an allergist for ongoing management, reassessment, and emerging therapies
- Reassess periodically — milk, egg, soy, and wheat allergies are often outgrown; peanut, tree nut, fish, and shellfish allergies less often are

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Anaphylaxis: Recognition & First-Line Treatment

- Epinephrine is first-line therapy — give it at the onset of symptoms; don't wait to see if they progress
- Typical dosing: 0.01 mg/kg IM in the anterolateral thigh, up to 0.3 mg in children and 0.5 mg in adults (AAAAI/ACAAI)
- Antihistamines and glucocorticoids are not substitutes for epinephrine
- Observe after treatment — biphasic reactions can occur, particularly after severe initial symptoms
- Every patient needs an action plan, auto-injector training, and allergist referral after an episode

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Emerging Therapy: Oral Immunotherapy

- Oral immunotherapy (OIT) gradually desensitizes patients to a specific allergen under specialist supervision
- An FDA-approved peanut OIT product is available for children with confirmed peanut allergy
- Raises the reaction threshold — it is not a cure; avoidance and epinephrine access are still needed
- Requires shared decision-making about risks, including reactions during treatment, and time commitment
- Best delivered through allergy/immunology referral, not initiated in primary care

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Prevention: Early Allergen Introduction

- The LEAP trial showed early, regular peanut introduction cut peanut allergy risk by roughly 81% in high-risk infants
- 2017 NIAID addendum guidelines recommend introducing peanut-containing foods around 4–6 months of age
- Infants with severe eczema and/or egg allergy are considered high risk and may benefit from evaluation before introduction
- Infants without these risk factors do not need testing before introducing allergenic foods at home
- Delaying introduction of allergenic foods is no longer recommended as a prevention strategy

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Managing True Food Intolerances

- Targeted, not global, elimination — guided by the specific mechanism (lactose, FODMAPs, histamine, additives)
- Involve a registered dietitian for any diet eliminating multiple foods or food groups
- Reintroduce systematically to confirm true triggers and avoid unnecessary long-term restriction
- Watch for nutritional consequences and quality-of-life impact from over-restriction
- Document the distinction from true allergy clearly — it changes both risk counseling and treatment

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Key Takeaways

- History first: a focused, allergy-directed history drives appropriate testing — not the reverse
- Sensitization (a positive test) is not the same as clinical allergy — context matters
- Oral food challenge remains the reference standard when the diagnosis is unclear
- IgG/IgG4 and other unvalidated tests have no role in diagnosing food allergy or intolerance
- Epinephrine is first-line for anaphylaxis — give it early, without hesitation
- Distinguishing allergy from intolerance protects patients from both unnecessary restriction and unrecognized risk

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Live Content Slide

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Social Q&A for Intolerance or Allergy? How to accurately diagnose and manage common food concerns

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QUESTIONS?

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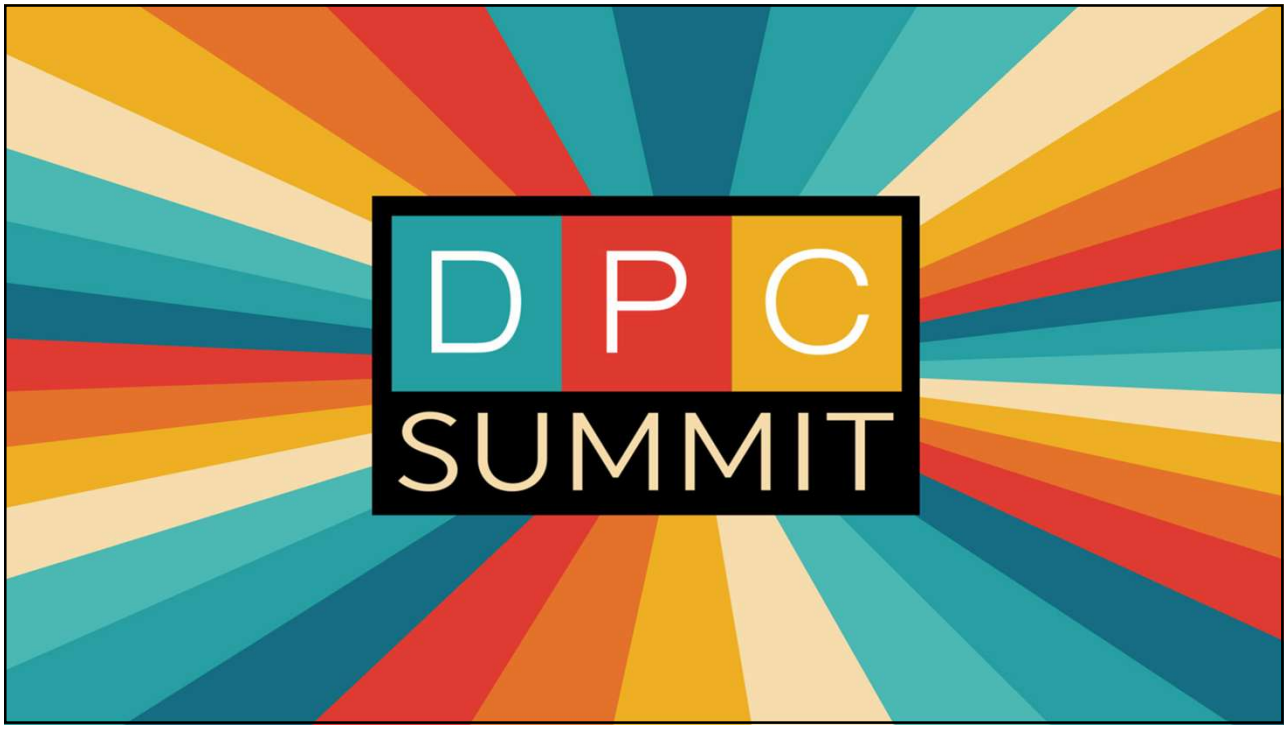

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