Allergy

Setting the standard

ImmunoCAP™ Specific IgE
Tree Nut Allergen Components*

Use this guide to interpret ImmunoCAP Allergen Component test results and unlock a broader understanding of a patient's allergic sensitization, allowing for a more comprehensive management plan.[1]

50%

of children that are allergic to one tree nut are allergic to another tree nut[2]

Pinpointing exactly which protein an individual is sensitized to may help determine the risk of severe reaction.[1-12]

Testing with tree nut allergen components can help to:[1,7,11-25]

- Assess risk for systemic allergic reactions
- Identify cross-reactivity
- Optimize diagnosis and management

Risk stratification[1,5-8,10-25]

Cross-reactivity → Risk

	CCD	Profilin	PR-10	LTP	Storage Protein
Hazelnut	MUFX3	Bet v 2†	Cor a 1	Cor a 8	Cor a 9, 14
Walnut	MUFX3	Bet v 2†		Jug r 3	Jug r 1
Brazil nut	MUFX3	Bet v 2†			Ber e 1
Cashew	MUFX3	Bet v 2†			Ana o 3

Characteristics of individual proteins[22-25]

CCD
- Does not usually provoke clinical reactions
- Highly cross-reactive (pollen, plant food, venoms)

Profilin
- Sensitization is usually asymptomatic
- Abundant in nature
- Cross-reactive with pollen

PR-10
- Labile to heat and digestion
- Mainly local reactions
- Cross-reactive with birch pollen

LTP
- Stable to heat and digestion
- Local and systemic reactions
- Cross-reactive with plant foods and pollens

Storage Protein
- Stable to heat and digestion
- Associated with systemic reactions
- Indicates primary sensitization

Management considerations[4-25]

CCD, Profilin, PR-10 MUXF3, Bet v 2†, Cor a 1	LTP Cor a 8, Jug r 3	Storage Proteins Cor a 9, Cor a 14, Jug r 1, Ber e 1, Ana o 3	
+/-	+/-	+	**If clinical symptoms are present with exposure to tree nuts,** high probability of clinical tree nut allergy and possibility for severe, systemic reactions. Consider the following: • Patient likely to react to oral food challenge (OFC) • Other potential co-sensitizations (e.g. peanuts, tree nuts, and seeds) • Prescribing epinephrine auto-injector • Inform family, colleagues, and teachers of the allergy and have a plan
+/-	+	-	**If clinical symptoms are present with exposure to tree nuts,** consider the following: • Systemic and local reaction such as oral allergy syndrome (OAS) are possible • Potential cross-reactivity to other LTP containing foods (e.g. peach, tree nuts, wheat) and pollens (e.g. weed and tree) • Prescribing epinephrine auto-injector
+	-	-	**If there are no symptoms with tree nut exposure,** or if symptoms are localized to only the oral cavity, primary tree nut allergy and severe reactions are less likely. Consider the following: • OFC with a specialist may be recommended

Note: As in all diagnostic testing, any diagnosis or treatment plan must be made by the clinician based on test results, individual patient history, the clinician's knowledge of the patient, as well as their clinical judgment. Patients can be sensitized to more than one allergen component.[1]

> ***Whole allergens consist of numerous allergen components.*** *A positive whole allergen sensitization with negative allergen component sensitization may mean a patient is sensitized to a component that is not yet available for testing. Consider a patient's clinical history and if an OFC with a specialist may be warranted.*

* Official product names of allergen components mentioned within this document: ImmunoCAP Allergen f17, Hazelnut; ImmunoCAP Allergen f428, Allergen component rCor a 1 PR-10 Hazelnut; ImmunoCAP Allergen f425, Allergen component rCor a 8 Hazelnut; ImmunoCAP Allergen f440, Allergen component nCor a 9 Hazelnut; ImmunoCAP Allergen f439, Allergen component rCor a 14 Hazelnut; ImmunoCAP Allergen f256, Walnut; ImmunoCAP Allergen f441, Allergen component rJug r 1 Walnut; ImmunoCAP Allergen f442, Allergen component rJug r 3 LTP, Walnut; ImmunoCAP Allergen f18, Brazil nut; ImmunoCAP Allergen f354, Allergen component rBer e 1 Brazil nut; ImmunoCAP Allergen f202, Cashew nut; ImmunoCAP Allergen f443, Allergen component rAna o 3, Cashew nut; ImmunoCAP Allergen o214, Allergen component MUXF3 CCD, Bromelain; ImmunoCAP Allergen t216, Allergen component rBet v 2 Profilin, Birch

† Surrogate markers for profilin Phl p 12, Bet v 2, Pru p 4

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