Allergy

Setting the standard

Egg 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]

75%

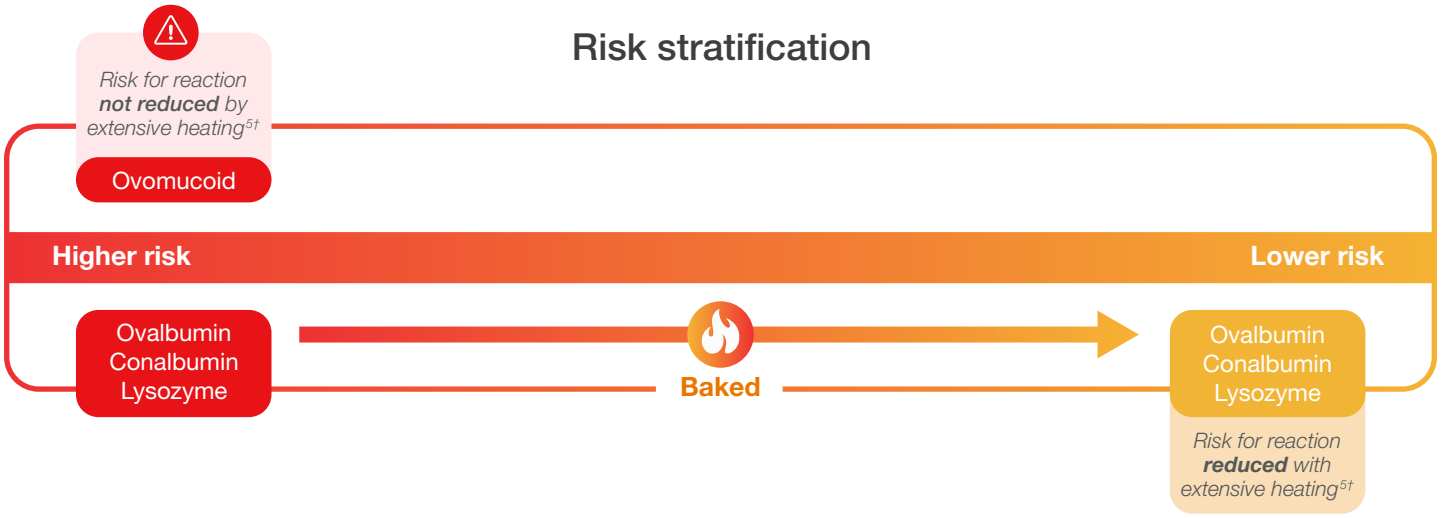
Up to 75% of children with egg allergy can tolerate baked egg[2-4]

Egg white contains the most allergenic proteins in hens egg. Testing for specific IgE to egg allergen components can help understand the likelihood of outgrowing an egg allergy and possibility of tolerating baked egg products.[2]

Testing with egg allergen components can help to:[1-6]

- Assess risk for clinical reactions to egg
- Evaluate potential tolerance to baked egg products
- Address parental anxiety

Risk stratification



Characteristics of individual proteins[2,5]

Ovomucoid Gal d 1

- Resistant to heat denaturation
- Marker of persistent egg allergy
- Highly allergenic

Ovalbumin Gal d 2

- Susceptible to heat denaturation
- Most abundant egg white protein
- Risk for clinical reaction to raw and lightly cooked egg

Conalbumin Gal d 3

- Susceptible to heat denaturation
- Risk for clinical reaction to raw and lightly cooked egg

Lysozyme Gal d 4

- Susceptible to heat denaturation and enzymatic degradation
- Risk for hidden allergen when used as preservative (E1105) by food (i.e. cheese, wine) and pharmaceutical (i.e eye drops) industry
- Risk for clinical reaction to raw and lightly cooked egg

Management considerations[5,6]

Egg white Whole allergen	**Ovalbumin** Gal d 2 **Conalbumin** Gal d 3 **Lysozyme** Gal d 4	**Ovomucoid** Gal d 1	
+/-	+/-	+	**If clinical symptoms are present** with exposure to egg, consider the following: • Avoiding all forms of egg • Patients sensitized to ovalbumin, conalbumin and/or lysozyme with low levels of IgE to ovomucoid may react to egg that is not fully baked • Less likely to outgrow/develop tolerance to egg • Risk for clinical reaction to drugs or foods containing lysozyme as preservative in patients with positive IgE levels to lysozyme
+/-	+/-	-	**If clinical symptoms are present** with exposure to egg, consider the following: • Avoiding uncooked/lightly cooked eggs and non-baked egg products (e.g. scrambled eggs) • Baked egg oral food challenge (OFC) with a specialist may be appropriate • More likely to outgrow/develop tolerance to egg

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 several 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 f1, Egg White; ImmunoCAP Allergen f232, Allergen component nGal d 2 Ovalbumin, Egg; ImmunoCAP Alergen f233, Allergen component nGal d1 Ovomucoid, Egg

† Recommended method of heating is baked in the oven at 350°F for 30 min.[6]

References

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