

# Discover the connection

## ImmunoCAP™ Allergen Components testing

Whole Allergens and Allergen Components help you diagnose allergy, allowing you to prepare a more comprehensive management plan.

Optimize management to help:

- ASSESS risk for systemic allergic reactions
- EVALUATE potential reaction to baked egg or milk products
- ADDRESS parental anxiety

With **ImmunoCAP Allergen Component test** results, you have more of the information necessary for proper diagnosis, allowing you to evaluate your patient's potential risk of systemic reaction, and develop a more comprehensive management plan.

## PEANUT



Peanut Allergen Component testing can help determine which proteins your patient is sensitized to.

A specific IgE blood test that detects sensitization to the whole peanut is the first step in discovering the likelihood of a systemic reaction and the necessary precautions that may be prescribed.



**77.6%**

The percentage of patients sensitized to peanut who may not be at risk for a systemic reaction.<sup>1</sup>

### Characteristics of individual proteins

<b>Peanut</b> f 13	<ul style="list-style-type: none"> <li>High levels of peanut IgE can predict the likelihood of peanut sensitivity, but may not be solely predictive of reactions or allergic response<sup>1</sup></li> </ul>
<b>CCD</b> MUXF3	<ul style="list-style-type: none"> <li><b>LOWEST RISK</b> of systemic reaction<sup>2</sup></li> <li>Highly cross-reactive with pollen, plant food and venoms<sup>2</sup></li> </ul>
<b>Profilin</b> Bet v 2	<ul style="list-style-type: none"> <li><b>LOWER RISK</b> of systemic reaction<sup>2,3</sup></li> <li>Cross-reactive with pollens<sup>2</sup></li> </ul>
<b>Ara h 8</b> f 352	<ul style="list-style-type: none"> <li><b>LOWER RISK</b> of systemic reaction<sup>4,5</sup></li> <li>Risk of mild, localized symptoms, such as itching/tingling of the lips, mouth, and oropharynx<sup>6</sup></li> <li>Cross-reactive with pollens (e.g., birch)<sup>6</sup></li> </ul>
<b>Ara h 9</b> f 427	<ul style="list-style-type: none"> <li><b>VARIABLE RISK</b> of systemic reaction including anaphylaxis<sup>7,8</sup></li> <li>Often accompanied by sensitization to other peanut proteins<sup>9</sup></li> <li>Cross-reactive with fruits with pits (e.g., peaches)<sup>7</sup></li> </ul>
<b>Ara h 1, 2, 3, 6</b> f 422, f 423, f 424, f 447	<ul style="list-style-type: none"> <li><b>HIGHER RISK</b> of systemic reaction including anaphylaxis<sup>7,10</sup></li> <li>Sensitization to Ara h 2 is nearly always associated with clinical peanut allergy<sup>11</sup></li> </ul>

CCD, Profilin, Ara h 8 MUXF3, Bet v 2, f 352	Ara h 9 f 427	Ara h 1, 2, 3, 6 f 422, f 423, f 424, f 447	Management Considerations <sup>4,12-18</sup>
+	-	-	<ul style="list-style-type: none"> <li>Oral food challenge (OFC) with a specialist may be recommended. High likelihood that patient may pass OFC.</li> <li>If patient passes an OFC: <ul style="list-style-type: none"> <li>Foods prepared with or around peanuts may be consumed</li> <li>Patient not restricted to peanut-free zones</li> </ul> </li> </ul>
+/-	+	-	<ul style="list-style-type: none"> <li>If there is no clinical history of symptoms, please see considerations above</li> <li>If there is a clinical history of symptoms, please see considerations below</li> </ul>
+/-	+/-	+	<ul style="list-style-type: none"> <li>Choose peanut-free zones for patient's safety</li> <li>Consider prescribing epinephrine auto-injector</li> <li>Family, colleagues, and teachers should be made aware of allergy and have a plan</li> </ul>

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.

# EGG



## Egg Allergen Component testing can help determine which proteins your patient is sensitized to.

A specific IgE blood test that detects sensitization to egg white is the first step in discovering your patient's allergy. Egg Allergen Component tests can help you determine the likelihood of reaction to products baked with egg, such as muffins or cookies, as well as the likelihood of allergy persistence.



**70%**

The percentage of children with egg allergy who do not react to baked egg.<sup>19</sup>

### Characteristics of individual proteins

#### Egg White f 1

- High levels of egg white IgE may predict the likelihood of sensitivity, but may not be solely predictive of reactions to baked egg or allergy duration<sup>20</sup>

#### Ovalbumin Gal d 2 / f 232

- Susceptible to heat denaturation<sup>20</sup>
- HIGHER RISK** of reaction to uncooked egg<sup>21,22</sup>
- LOWER RISK** of reaction to baked egg<sup>21,22</sup>
- Patient likely to "outgrow" egg allergy<sup>23</sup>

#### Ovomucoid Gal d 1 / f 233

- Resistant to heat denaturation<sup>20</sup>
- HIGHER RISK** of reaction to all forms of egg<sup>21</sup>
- Patient unlikely to "outgrow" egg allergy with high levels of specific IgE to ovomucoid<sup>24,27</sup>

\*In clinical studies, extensively baked muffin and waffle were heated to the point of protein denaturation.

#### Ovalbumin Gal d 2 / f 232

#### Ovomucoid Gal d 1 / f 233

### Management Considerations<sup>19-21</sup>

- Avoid uncooked eggs
- Likely to tolerate baked egg
- Baked egg oral food challenge with a specialist may be appropriate
- Consider repeating IgE component test biennially during childhood to determine potential tolerance
- May be transferred via breast milk, so mothers of infants with egg allergy should take caution when breast-feeding

#### +/-

#### +

- Avoid all forms of egg
- Consider repeating IgE component test biennially during childhood to determine potential tolerance
- Patients sensitized to ovalbumin with low levels of IgE to ovomucoid may react to egg that is not fully baked

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.

# MILK



## Milk Allergen Component testing can help determine which proteins your patient is sensitized to.

A specific IgE blood test that detects sensitization to cow's milk is the first step in discovering your patient's allergy. Milk Allergen Component tests can help you determine the likelihood of reaction to baked goods, such as cookies or cheese pizza, as well as the likelihood of allergy persistence.



**75%**

The percentage of children with milk allergy who do not react to baked milk.<sup>28</sup>

### Characteristics of individual proteins

#### Cow's milk f 2

- High levels of cow's milk IgE may predict the likelihood of sensitivity, but may not be solely predictive of reactions to baked milk or allergy duration<sup>20</sup>

#### $\alpha$ -lactalbumin Bos d 4 / f 76

- Susceptible to heat denaturation<sup>20</sup>
- HIGHER RISK** of reaction to fresh milk<sup>28,29</sup>
- LOWER RISK** of reaction to baked milk<sup>28,29</sup>
- Patient likely to "outgrow" milk allergy<sup>31</sup>

#### $\alpha$ -lactalbumin Bos d 4 / f 76

#### $\beta$ -lactoglobulin Bos d 5 / f 77

#### Casein Bos d 8 / f 78

### Management Considerations<sup>28,32-36</sup>

- Avoid fresh milk
- Likely to tolerate baked milk products
- Baked milk oral food challenge with a specialist may be appropriate
- Likely to outgrow allergy

#### +/-

#### +/-

#### +

- Avoid all forms of cow's milk
- Unlikely to become tolerant of cow's milk over time
- Avoid cow's milk and baked milk products (yogurt, cookies, cakes), as well as products processed with milk (chocolate, sausages, potato chips)

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.

\*In clinical studies, extensively baked muffin, waffle, and cheese pizza were heated to the point of protein denaturation.

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