

Components improve the diagnosis of wheat allergy

Identify primary wheat sensitizations and exclude cross-reactivity dependent sensitization:

- Sensitization to wheat specific components supports a true food wheat allergy and help rule out clinically irrelevant sensitizations due to grass cross-reactivity.

Assess the risk for severe reactions of the wheat allergy:

- IgE antibodies to Tri a 19 and Gliadin are associated with severe reactions in wheat food allergies.

Improve patient management

- An aid to rule in IgE mediated wheat allergy as a cause of gastrointestinal symptoms.
- Improve avoidance recommendation.
- Identify patients at risk for reactions.

Make a precise assessment

ImmunoCAP Allergen Components help you differentiate between primary allergies and cross-reactivity

Make a substantiated decision

A better differentiation helps you give relevant advice and define the optimal treatment

Make a difference

More informed management helps you improve the patient's well-being and quality of life

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WHEAT
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Use components to improve the diagnosis of
IgE mediated wheat food allergy

IgE mediated wheat food allergies

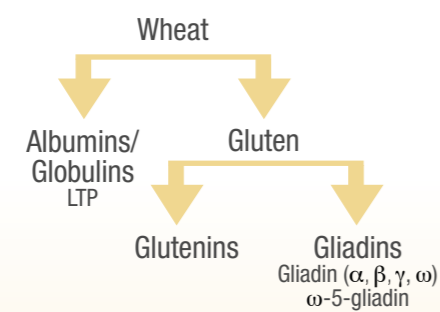
- Ingested wheat can cause IgE mediated wheat allergies in both children and adults.
- Immediate wheat allergy is mainly seen in children and is commonly outgrown by school-age, but remains in a subset and may cause severe reactions.¹
- In teenagers and adults, anaphylaxis may also result from ingestion of wheat in conjunction with exercise or other situations when the body is stressed (WDEIA, Wheat dependent exercise induced anaphylaxis).^{2,3}



Wheat components improve the diagnosis of wheat food allergies

Available components:

- Tri a 14, LTP
- Gliadin (α , β , γ and ω gliadins)
- Tri a 19, ω -5 gliadin

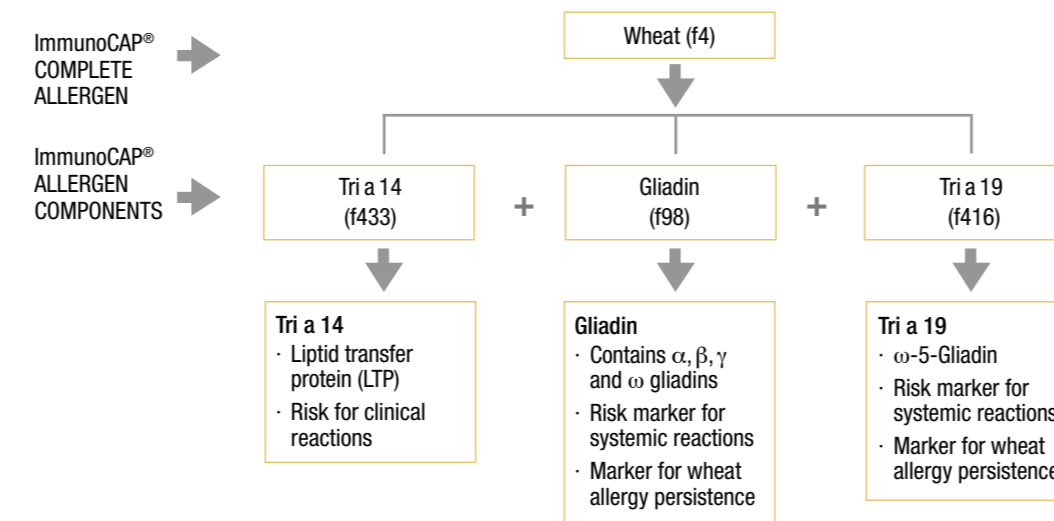


Immediate wheat allergy

Positive test results for any of the available wheat components support a diagnosis of immediate wheat allergy.

- Sensitization to Tri a 14, Tri a 19 and/or Gliadin is associated with allergic reactions to ingested wheat.⁴⁻⁸
- IgE antibodies to Tri a 19 and Gliadin are risk markers for severe reactions.^{9,10}
- Persistent IgE levels to Gliadin and Tri a 19 are associated with slower tolerance development.^{11,12}

Immediate Wheat Allergy – Suggested test profile

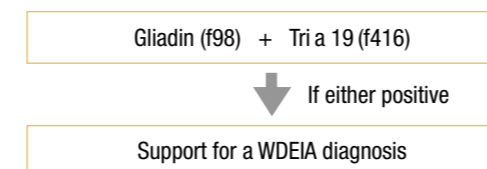


Gliadin gives high sensitivity for detecting wheat food allergy while Tri a 19 provides higher specificity.

Wheat dependent exercise induced anaphylaxis

WDEIA is elicited by exercise or other co-factors such as NSAID drugs, alcohol or stress after wheat intake. WDEIA patients do generally not have a history of immediate wheat allergy, and many (30 – 50 %) are also negative in extract based wheat tests. However, a majority of the WDEIA patients are sensitized to Tri a 19 and/or Gliadin.¹³⁻¹⁵

- Positive test results for Tri a 19 and/or Gliadin support a diagnosis of suspected WDEIA.¹³⁻¹⁵
- Sensitization to LTP may be associated with a risk for co-factor mediated anaphylaxis.^{8,16}



Did you know that?

- Wheat (*Triticum aestivum*) is a grass, and one of the most common causes of food allergy in children.³
- In addition to IgE mediated wheat allergies, there are other hypersensitivity disorders caused by wheat, e.g. celiac disease and irritable bowel syndrome.³
- There are many allergen components in wheat and most patients are sensitized to several of these.¹⁷
- Some grass allergic children can be misdiagnosed as wheat allergic and recommended a wheat-free diet as wheat extract tests often show up positive due to cross-reactivity between wheat and grass components e.g. profilin and CCD.¹⁸
- Grass-dependent positivity to wheat extract tests can be ruled out using specific wheat components.
- The LTP Tri a 14 lacks cross-reactivity to grass pollen allergens.
- Some patients with wheat allergy may react to other cereals such as rye and barley due to cross-reactivity between gluten proteins (gliadins and glutenins).¹⁹
- Wheat is an ingredient in processed foods other than bakery products, for instance in beer which may elicit symptoms in allergic patients.¹⁷

