ASTHMA

ImmunoCAP®
Is it allergy?

Reveal the truth behind
the asthma symptoms

ImmunoCAP® blood test helps you rule in or rule out allergy and consequently improve patient well-being

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The majority of asthma patients have allergic asthma

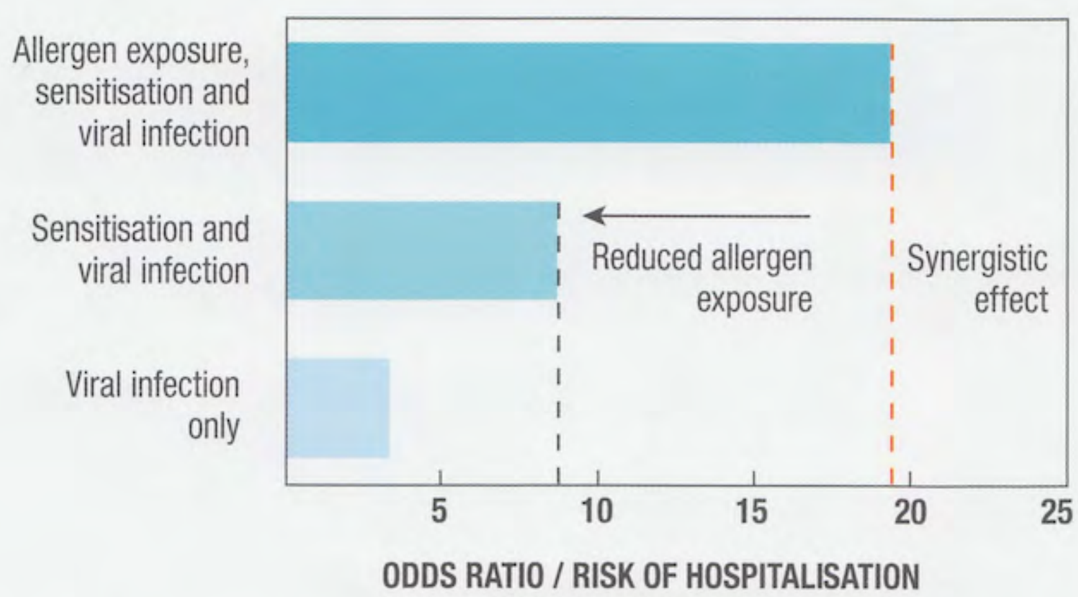
- 60% of asthmatic adults and 90% of asthmatic children have allergy.[1–3]
- Case history alone may overlook relevant inhalant and food allergens.

Knowing it´s asthma is not enough

Independent factors may have synergistic effect on asthma symptoms.[4–6] Go beyond treatment with inhaled corticosteroids – identify and manage the factors that are causing the symptoms early.

Combination of allergy and viral infection increases the risk of severe asthma[4]

High potential patient benefits in identifying and reducing exposure to relevant allergens.

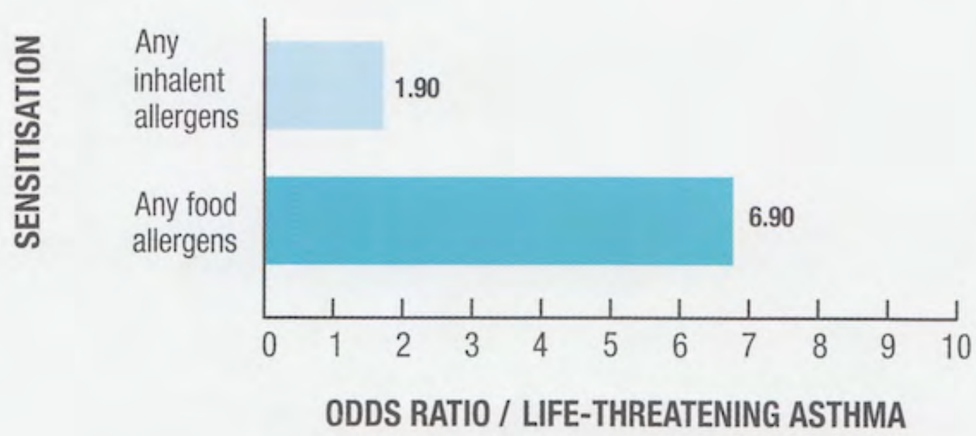


Multivariate analysis of odds ratios (95% CI) for risk factors of hospital admission for acute asthma exacerbation in children ages 3 to 17 years.

A nearly 20-fold increased risk of hospitalisation for patients with asthma, allergen exposure and viral infection compared to patients with asthma alone.[4]

Food allergy increases the risk of severe asthma[6]

High potential patient benefits in identifying and reducing exposure to relevant allergens.

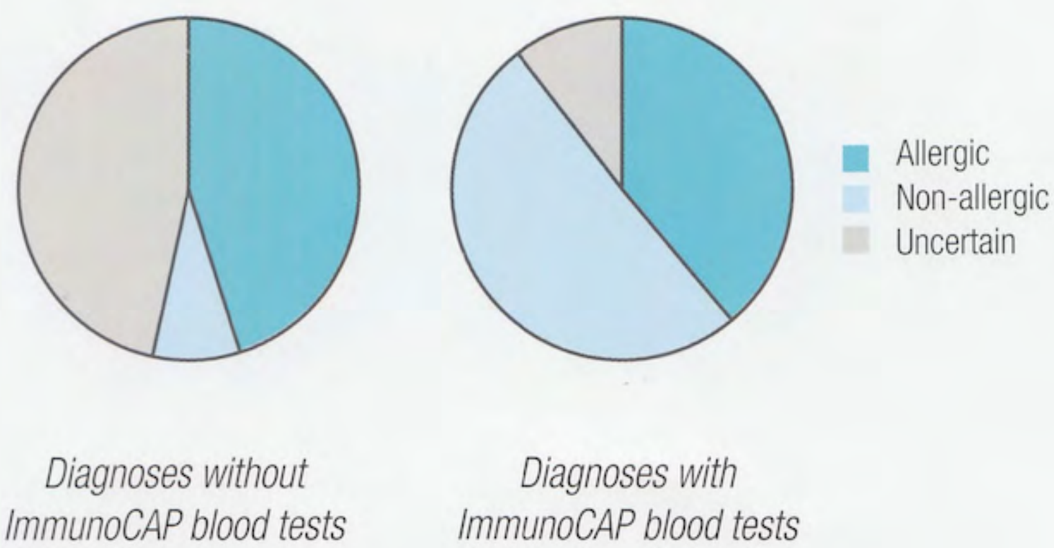


Independent risk factors for life-threatening asthma, from a case-controlled analysis of children ventilated for asthma exacerbation.

Early allergy blood testing can help you identify the relevant allergens

ImmunoCAP blood test increases certainty in allergy diagnosis and helps rule out allergy*

- Decrease in patients with uncertain allergy diagnosis – from 50% to 10%.[10,11]
- Increase in patients diagnosed as non-allergic – from 10% to 50%.[10,11]
- Resulting in cost savings of 242 EURO /patient including allergy tests, medication and physician visits over a period of 2 years.[12]



*In addition to case history and physical examination in primary care.

ImmunoCAP blood test can easily be performed

- Irrespective of age, even in early infancy.[13,14]
- Irrespective of a patient's skin condition, medication, symptoms, disease activity and pregnancy.[15,16]

Guidelines and recommendations around the world urge clinicians to perform allergy testing in asthmatic patients

EAACI (European Academy of Allergy and Clinical Immunology): *"Generally, all children with persisting/recurrent/severe "allergic symptoms" or individuals with need for continuous treatment should be tested for allergy irrespective of the age of the child."* [17]

NIH (National Institute of Health): *"Allergy testing is the only reliable way to determine sensitivity to perennial indoor allergens…"* [18]

Department of Health: *"The key step in allergy management is making an allergy diagnosis – deciding whether the patient's symptoms are caused by allergy and, if so, identifying the allergic triggers as precisely as possible. An accurate diagnosis therefore targets the appropriate clinical intervention and allows avoidance of the allergic trigger and amelioration or resolution of symptoms."* [19]

NICE (National Institute for Health and Clinical Excellence): *"…if IgE-mediated allergy is suspected, offer the child or young person a skin prick test and/or blood tests for specific IgE antibodies to the suspected foods and likely co-allergens."* [20]

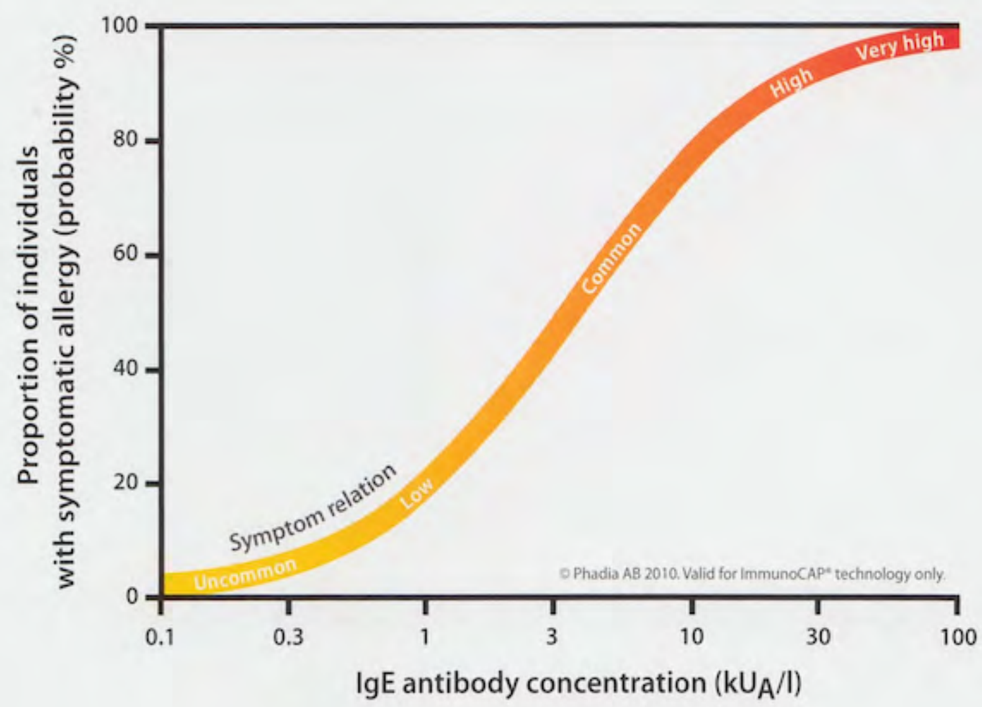
ImmunoCAP gives specific and reliable answers

1. **Request an ImmunoCAP test** for the relevant allergens based on the patient's clinical history. ImmunoCAP symptom profiles identify the most commonly found offending allergens.
2. **Draw a blood sample.** 80 µl whole blood (40 µl serum) for each allergen.
3. **Send the sample** and request form to your local lab using ImmunoCAP.
4. **You get the results back.**

Wheeze/Rhinitis Child		Asthma/Rhinitis Adult	
g6	Timothy	g6	Timothy
t3	Birch	t3	Birch
t25	Ash	t25	Ash
w6	Mugwort	w1	Ragweed
e1	Cat	w6	Mugwort
e5	Dog	e1	Cat
d1	House dust mite	e5	Dog
f1	Egg white	d1	House dust mite
f2	Cow´s milk	m6	*Alternaria*
f13	Peanut	i6	Cockroach

Interpretation of ImmunoCAP test results

The higher the specific IgE antibodies, i.e. sensitisation, the higher the risk for symptomatic allergy.* [21,22]



Factors to consider for a final diagnosis:

- Age
- Degree of atopy
- Allergen load
- Type of sensitising allergens
- Previous symptoms
- Other triggering factors

Positive test results:

≥0.35 kU_A/L indicate sensitisation.

ImmunoCAP can measure levels as low as 0.1 kU_A/L which in some instances, particularly in infants, can be clinically significant and indicate sensitisation.

Follow-up tests keep track of a changing allergy

Allergy undergoes dynamic changes over time. Regular blood testing of relevant allergens provides information as to if and how patient management can be changed.[19,23]

Regular follow-up with ImmunoCAP will help you determine:

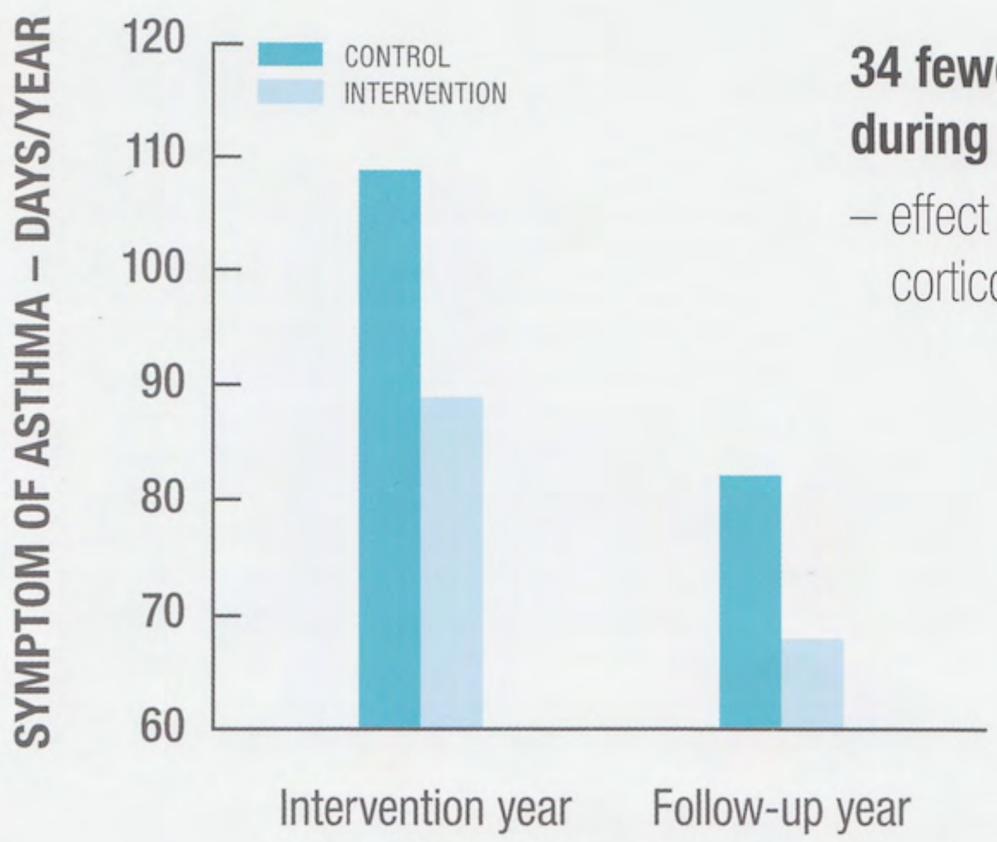
- If allergies have been outgrown and if allergen avoidance is no longer needed.
- If new allergies have developed and if new allergen avoidance advice is necessary.

*** Please note!** ImmunoCAP measures specific IgE antibody concentrations i.e. sensitisation which is one part of the diagnosis of allergy. The IgE antibody level should be regarded as additional information helping the clinician confirm the clinical decision, based also on a case history and physical examination.

Identify the relevant allergens in your asthma patients early

Implementation of targeted exposure reduction plans to allergens:

- **Reduces** symptoms of asthma.*[7]



34 fewer days of wheezing during two years

– effect similar to inhaled corticosteroid therapy.[7,8]

- **Reduces** number of unscheduled emergency department/clinic visits for asthma (every 2,85 children treated resulted in one less visit).*[7]
- **Reduces** asthma-associated morbidity.*[7]
- **Reduces** number of missed school days (4,4 days/year).*[7]
- **Reduces** use of inhaled corticosteroid doses by > 50% in the majority** of patients.[9]

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*Education and remediation decreased exposure to indoor allergens, including cockroach and dust-mite allergens, resulting in reduced asthma-associated morbidity. Effect was achieved without worsening symptoms, lung function or increased need for rescue medication.** Reduction was reached in 73% (active treatment group) vs 24% (control group) at 12 months (p>0,01) with the use of bedding encasements in dust mite allergic patients.

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EASY: Can be performed irrespective of a patient's age, skin condition, medication, symptoms, disease activity and pregnancy.[13–16]

RELIABLE: Performed without procedure variations and the results are of excellent standardisation.[24]

QUANTITATIVE: The results can help you predict and follow the disease development and determine what your patient is allergic to.[22,25]

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