

How do perennial and seasonal allergens result in loss of asthma control?

Dear Subscriber

WHICH ALLERGIC DISEASES DO AEROALLERGENS TRIGGER?

Allergy to aeroallergens can lead to both seasonal and perennial allergic rhinitis, asthma, rhinitis and asthma, and in some cases an exacerbation of eczema or urticaria¹

HOW DO AEROALLERGENS IMPACT ASTHMA?

Allergies trigger asthma exacerbations in up to 90% of children and 60% of adults with asthma.^{2,3}

Most patients with allergies have multiple allergic sensitivities contributing to their allergen load.⁴ Perennial allergens increase the load, when seasonal allergens or other triggers are encountered the patient passes their symptom threshold resulting in symptoms.^{5,6}



WHAT ARE THE BENEFITS OF IDENTIFYING ALLERGY IN PATIENTS WITH ASTHMA?

It has been shown that allergen exposure reduction can lead to 61% medication reduction in patients with asthma,⁵ and that improving indoor environments can result in up to a 30% reduction in asthma symptoms.⁶ Reducing exposure to perennial allergens, and targeting treatment of seasonal allergens based on peak seasons could help reduce asthma symptoms.^{5,6}



Raising awareness of allergies and increasing access to accurate allergy diagnosis and treatment in primary care, over 12 months, results in:⁷

- 22% reduction in unscheduled care
- 13% reduction in A&E attendance with respiratory and allergic conditions
- Increased professional confidence
- High levels of patient satisfaction (98% of parents reported high or very high levels of satisfaction with the service they received)

WHAT IS SPECIFIC IGE AND WHY SHOULD IT BE USED FOR DIAGNOSING ALLERGY IN PRIMARY CARE?

- Specific IgE (also known as ImmunoCAP and, as a previous technology, known as RAST) is no different, in terms of venipuncture, to many other blood tests. It is the gold-standard quantitative IgE test and has an excellent clinical performance (sensitivity 84-95% and specificity 85-94% depending on the allergen)
- Specific IgE, unlike skin prick testing, is a licensed test which does not require specialised equipment, training or facilities to perform
- Specific IgE is easy to request through pathology ordering systems, requires just 1 ml of blood for up to 10 allergens, and is easy to interpret in the context of a clinical history

WHAT ARE THE MOST COMMON AEROALLERGENS IN THE UK?⁸⁻¹⁰

———— Main release period	Peak					Symptoms may be all-year- round or occasional, depending on exposure						
Allergen	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Perennial											
House dust mite												
Animal dander												
	Perennial/Seasonal ⁹											
Alternaria Alternata		 										
Aspergillus Fumigatus		 										
Cladosporium Herbarum								_				
Didymella exitialis	 											
Penicillium Notatum		i 										
	Seasonal ¹⁰											
Hazel (Corylus)	- 											
Yew (Taxus)	- 											
Adler (Alnus)	- 											
Elm <i>(Ulmus)</i>												
Willow <i>(Salix)</i>												
Poplar <i>(Populus)</i>												
Birch <i>(Betula)</i>			——–									
Ash (Fraxinus)												
Plane (Plantanus)												
Oak (Quercus)	1 1 1 1		-									
Pine <i>(Pinus)</i>				 								
Lime <i>(Tilia)</i>								_				
Grass (Poaceae)												
Dock (Rumex)					_							
Mugwort (Artemisia)						_						
Nettle (Urtica)												
Oil seed rape (Brassica napus)			_									
Plantain (Plantago)												

References

1. Allergy UK. Respiratory allergies. Available from https://www.allergyuk.org/respiratory-allergies/ respiratory-allergies; last accessed June 2016.

- 2. Allen-Ramey F, et al. J Am Board Fam Pract 2005;18(5):434-439.
- 3. Host A, Halken S. Allergy 2000;55:600-608.
- 4. Ciprandi G, et al. Eur Ann Allergy Clin Immunol 40(3); 2008: 77-83.
- 5. Eggleston PA. Immunol Allergy Clin North Am 2003;23(3):533-547.
- 6. Wickman M. Allergy 2005;60(suppl 79):14-18.
- 7. Griffin R, et al. Clin Exp Allergy 2014;45:492-540(O.6).

8. Asthma UK. Moulds and fungi. Available from https://www.asthma.org.uk/advice/triggers/moulds-and-fungi; last accessed June 2016.

9. Asthma UK. Pollen. Available from https://www.asthma.org.uk/advice/triggers/pollen; last accessed

June 2016.

10. NICE. Available from http://cks.nice.org.uk/allergic-rhinitis#!diagnosissub; last accessed June 2016.

Thermo Fisher