

# What is allergy?



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## Know your specific IgE

Allergies are very common and increasing in Australia and New Zealand, affecting around one in three people at some time in their lives. There are many different causes of allergy, and symptoms vary from mild to potentially life-threatening.

Allergy occurs when a person's immune system reacts to substances in the environment that are harmless for most people. These substances are known as allergens and are found in house dust mites, pets, pollen, insects, moulds, foods and some medicines.

Allergic sensitivity tends to run in families. However, although there is a genetic (inherited) tendency to develop allergic diseases, allergy to a particular substance may not be inherited. Most people with allergies are affected by more than one allergen and everyone reacts differently; something that is a problem for one person may not be for someone else.

# What happens when you have an allergic reaction?

The first time you are exposed to the allergen, you are unlikely to have a major reaction; instead, your immune system creates antibodies and you become 'sensitised'. But the next time you come into contact with the allergen, the antibody identifies it and triggers the release of chemicals, including histamine that causes your symptoms.

## What are the most common allergens?

FOOD		ENVIRONMENT	
Dairy	Nuts	Dust mite	Trees
Egg	Prawns	Grasses	Moulds
Fish	Soy	Animals	Latex
Fruits	Meat	Weeds	Insects



## What symptoms might you experience?

- › Nose and/or eyes – hay fever (allergic rhinitis/ conjunctivitis)
- › Skin – eczema, hives (urticarial)
- › Lungs – asthma
- › Skin – hives (urticarial)
- › Stomach or bowel – colic, cramps

Anaphylaxis is a less common but far more serious reaction that affects the whole body, can be life-threatening, and requires urgent medical treatment.

Some people may develop an intolerance to food, however this is not an allergic reaction. For example, with milk there may be an inability to digest lactose (milk sugar), however no allergen specific IgE is involved.

Some irritable bowel symptoms may be due to digestive enzyme deficiency resulting in intolerance to lactose, sucrose, mannose or fructose, while other irritable bowel symptoms may benefit from a low fermentable (FODMAP) diet.

## What tests diagnose allergies?

Allergies can make your life miserable. But testing can help you find out which allergens cause your symptoms. Avoiding the relevant allergens may prevent serious attacks and reduce airborne allergy symptoms. When avoidance of airborne allergens is not sufficient, allergy vaccines, also called immunotherapy, can be prescribed by an allergy specialist that can desensitise you, with long-lasting benefit.

Both skin prick tests or specialised blood tests, sometimes a combination, may be used to define your 'allergen specific IgE', or what you are allergic to.

## What blood tests are performed?

Blood tests are performed to assist your doctor diagnose the cause of your allergy.

Specific IgE is measured to confirm an allergic aetiology (cause) for symptoms when there is a history that suggests a possible allergic cause. All our specific IgE testing is now performed on the Phadia ImmunoCAP® system. As the majority of published studies in allergy use this testing method, it is widely considered the benchmark for quantifying specific IgE. Early versions of allergy testing were performed using a different method called RadioAllergoSorbent Tests (RAST) and the word 'RAST' is still commonly used to describe the laboratory in-vitro specific IgE tests we do today.

A blood sample will be collected at one of our collection centres and tested in our laboratory using the Phadia ImmunoCAP® or, when requested, the Phadia ImmunoCAP ISAC® microarray system. Determining allergies is complex and often a diagnosis must be made by correlating test results with your symptoms and clinical history, as the tests indicate sensitisation but not necessarily the consequences of exposure. Our specialist immunopathologists can provide your doctor with advice on test selection and interpretation. Our laboratory has the largest allergy testing menu in Australasia.

## What is ImmunoCap ISAC®

The Phadia ImmunoCAP ISAC® microarray system is one of the most important recent advances in laboratory allergy diagnosis that now allows us to determine, with a high level of accuracy and precision, specific IgE antibodies to a far wider range of allergens (112 clinically important allergen molecules from 53 different allergens), including some that could not previously be tested for.



## What is the cost?

Medicare sets strict limits on the reimbursement of allergy testing. If more than four single allergens are requested, patients will receive an invoice and may be eligible for a Medicare rebate of \$22.95. If your doctor orders one mixed panel, this is equivalent to ordering two single tests.

Therefore, extended allergy test panels, or the ISAC microarray may attract additional fees. There is no Medicare rebate for ImmunoCap ISAC test®.

## Where can I obtain further information?

Please discuss your allergy and treatment with your doctor. Additionally, for further information, you may refer to the website of Australasian Society of Clinical Immunology and Allergy (ASCIA) on [www.allergy.org.au/patients](http://www.allergy.org.au/patients).

Information contained in this brochure is not intended to replace medical advice and any questions regarding a medical diagnosis or treatment should be directed to a medical practitioner