# Who Gets Allergies?



Allergic disease is a major public health problem in western countries where rates have been rising dramatically since the mid-20th century.

Australia has one of the highest allergy rates in the world. Up to 40 percent of our children have evidence of allergic sensitisation and our children have the world's highest prevalence of food allergy.

These children may develop allergic diseases such as food allergies, eczema, asthma and allergic rhinitis.



## The Woolcock Institute of Medical Research is a not-for-profit organisation

If you are interested in further information about becoming involved in our research studies or making a donation, please visit our website www.woolcock.org.au.

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#### **ALLERGIES IN AUSTRALIA**

In recent surveys, up to 25 percent of Australians reported having a food intolerance. Our rates of proven food allergy are as high as 1 in 10 in infants.

While we don't know why, we do know food allergy and intolerance rates can differ according to gender. Figures released by the Australian Bureau of Statistics show boys have nearly double the risk of peanut or tree nut allergy while girls are twice as likely to suffer from coeliac disease or gluten intolerance and have higher rates of dairy allergy.

The most common food allergies are to peanuts, tree nuts (almonds, brazil nuts), milk, egg, wheat, soy, fish and shellfish. Depending on the food type, many will outgrow their allergy with time but others will have them for life.

The most common allergic conditions in children and adolescents are eczema (dermatitis), asthma, hay fever (rhinitis), food, drug and insect allergies.

Almost one in 10 Australian infants aged 12 months are allergic to eggs, amongst the highest egg allergy rates in the world.

#### WHAT IS AN ALLERGY?

An allergy is an immune system response to a substance (allergen) in the environment that the body mistakenly perceives as harmful. This causes the immune system to release large amounts of chemicals, triggering symptoms.

Reactions range from mild to severe depending on the amount of chemical released and can include:

- Hives or welts on the skin
- Swelling of tongue, throat, face, lips and/or eyes
- Abdominal pain, vomiting

- Difficulty with or noisy breathing
- Difficulty talking and/or hoarse voice
- Wheezing or persistent cough
- Persistent dizziness and/or collapse
- Sudden drop in blood pressure

Anaphylaxis is the most severe and life-threatening form of allergic reaction. It affects the whole body and can lead to wheezing, shortness of breath and loss of consciousness within minutes of exposure.

#### HOW IS AN ALLERGY DIAGNOSED?

Allergy testing is an important part of a child's allergy assessment. It is commonly performed on individuals who have asthma, hay fever, insect sting allergies or food reactions. The main types of allergy tests are skin prick tests and blood tests.

#### **Skin Prick Tests**

A small droplet of allergen extract (protein) is placed onto the skin (usually the forearm or shin of the child), and a tiny "prick" is made through the skin using a small needle (lancet) through the droplet.

If the test is positive, a wheal or swelling will appear at the site of the prick. The wheal is then measured after 15-20 minutes.

At the Woolcock Clinic, we use a needleless system where the allergen droplet and prick are administered



simultaneously. This technique is quicker and results in less discomfort than the traditional method.

As allergies are complex and vary from child to child, we personalise the testing process to the patient. A thorough history and examination is obtained before individualised skin prick testing to specific allergens (where necessary) is performed on each child.

Your doctor will then explain the test result to you and the implications of this test result. Each patient receives a printed report of the allergy test to keep as a personal record.

### **Allergy Blood Tests**

Blood tests are also used to evaluate a food allergy. If a patient is allergic to a specific food, Immunoglobulin E (IgE) antibodies are formed to these specific allergens, which can be measured with a blood test. These tests are now referred to as serum specific IgE tests.

We are committed to helping families wanting to avoid allergies developing and those looking for diagnosis and quality treatment.

#### HOW WE CAN HELP YOU

If you are concerned about your child's allergies, speak to your doctor who will be able to refer you to our Clinic.

We can make an appointment for your child to see our paediatric allergist and immunologist who specialises in treating children aged 0-18 years.

After a careful and thorough assessment and diagnosis, we will make an individualised treatment and management plan to suit your child's needs.

To find out more, go to www.woolcock.org.au/clinic.