

Researchers don't know why food allergies are so common in Australian children

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Australia has often been called the "allergy capital of the world".

An estimated <u>1 in 10</u> Australian children develop a food allergy in their first 12 months of life. Research has previously suggested food allergies are more common in infants in <u>Australia</u> than infants living in Europe, the United States or Asia.

So why are food allergies so common in Australia? We don't know exactly—but local researchers are making progress in understanding childhood allergies all the time.

What causes food allergies?

There are many different types of reactions to foods. When we refer to food allergies in this article, we're talking about something called <u>IgE-mediated food allergy</u>. This type of allergy is caused by an immune response to a particular food.

Reactions can occur within minutes of eating the food and may include swelling of the face, lips or eyes, "hives" or welts on the skin, and vomiting. Signs of a severe allergic reaction (anaphylaxis) include difficulty breathing, swelling of the tongue, swelling in the throat, wheeze or persistent cough, difficulty talking or a hoarse voice, and persistent dizziness or collapse.

Recent results from Australia's large, long-running food allergy study, <u>HealthNuts</u>, show one in ten one-year-olds have a food allergy, while around six in 100 children have a food allergy <u>at age 10</u>.

In Australia, the most common <u>allergy-causing foods</u> include eggs, peanuts, cow's milk, shellfish (for example, prawn and lobster), fish, tree



nuts (for example, walnuts and cashews), soybeans and wheat.

Allergies to foods like eggs, peanuts and cow's milk often present for the first time in infancy, while allergies to fish and shellfish may be more common <u>later in life</u>. While most children will outgrow their allergies to eggs and milk, allergy to peanuts is more likely to be lifelong.

Findings from <u>HealthNuts</u> showed around three in ten children grew out of their peanut allergy by age six, compared to nine in ten children with an allergy to egg.

Are food allergies becoming more common?

Food allergies seem to have become more common in many countries around the world over <u>recent decades</u>. The exact timing of this increase is not clear, because in most countries food allergies were not well measured 40 or 50 years ago.

We don't know exactly why food allergies are so common in Australia, or why we're seeing a rise around the world, despite extensive research.

But possible reasons for rising allergies around the world include changes in the <u>diets of mothers and infants</u> and increasing <u>sanitisation</u>, leading to fewer infections as well as less exposure to "good" bacteria. In Australia, factors such as increasing <u>vitamin D deficiency among infants</u> and high levels of migration to the country could play a role.

In several Australian studies, children born in Australia to parents who were born in Asia have higher rates of <u>food allergies</u> compared to non-Asian children. On the other hand, children who were born in Asia and later migrated to Australia appear to have a lower risk of <u>nut allergies</u>.

Meanwhile, studies have shown that having pet dogs and siblings as a



young child may reduce the risk of food allergies. This might be because having pet dogs and siblings increases contact with a range of bacteria and other organisms.

This evidence suggests that both genetics and environment play a role in the development of food allergies.

We also know that infants with eczema are more likely to develop a food allergy, and <u>trials</u> are underway to see whether this link can be broken.

Can I do anything to prevent food allergies in my kids?

One of the questions we are asked most often by parents is "can we do anything to prevent food allergies?".

We now know introducing peanuts and eggs from around six months of age makes it less likely that an infant will develop an allergy to these foods. The Australasian Society of Clinical Immunology and Allergy introduced guidelines recommending giving common allergy-causing foods including peanut and egg in the first year of life in 2016.

Our research has shown this advice had <u>excellent uptake</u> and may have slowed the rise in food allergies in Australia. There was no increase in peanut allergies between <u>2007–11 to 2018–19</u>.

Introducing other common allergy-causing foods in the first year of life may also be helpful, although the <u>evidence</u> for this is not as strong compared with peanuts and eggs.

What next?



Unfortunately, some infants will develop food allergies even when the relevant foods are introduced in the first year of life. Managing food allergies can be a significant burden for children and families.

Several Australian trials are currently underway testing new strategies to prevent food allergies. A large trial, soon to be completed, is testing whether <u>vitamin D supplements</u> in infants reduce the risk of food allergies.

Another trial is testing whether the amount of eggs and peanuts a mother eats during <u>pregnancy and breastfeeding</u> has an influence on whether or not her baby will develop food allergies.

For most people with food allergies, avoidance of their known allergens remains the standard of care. Oral immunotherapy, which involves gradually increasing amounts of food allergen given under medical supervision, is beginning to be offered in some facilities around Australia. However, current oral immunotherapy methods have potential side effects (including allergic reactions), can involve high time commitment and cost, and don't cure food allergies.

There is hope on the horizon for new <u>food allergy</u> treatments. Multiple <u>clinical trials</u> are underway around Australia aiming to develop safer and more effective treatments for people with food allergies.

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