

New study to look at impact of food allergies on S'pore kids as cases rise

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A new four-year study will examine how common food allergies are in children here, as well as the impact of these allergies on children's nutrition, growth, metabolic and mental health.

Led by the National University Hospital (NUH) and the KK Women's and Children's Hospital (KKH), the study was launched in response to a rising number of such cases locally.

KKH has seen a steady rise in the number of patients visiting the hospital's allergy clinics in recent years, said Dr Chong Kok

Wee, the study's co-investigator and head of the allergy service at KKH's paediatric medicine department.

"Between 2012 and 2022, the number of children who have tested positive for common food allergies such as milk, eggs, peanuts and shellfish has risen threefold," added Dr Chong.

Allergies to eggs, milk and peanuts are more common in younger children, while teens and young adults tend to report shellfish allergies.

Emergency visits for food-related anaphylaxis in children have shot up 2½ times between 2015 and 2022, Dr Chong noted.

Anaphylaxis can result in difficulty breathing and a severe drop

in blood pressure, and can be fatal.

Other common symptoms range from itchy skin or eczema to swelling of the lips or tongue, as well as difficulty breathing.

Such allergies have typically been thought to be uncommon among Asian populations, said Associate Professor Elizabeth Tham, the study's lead principal investigator.

"However, in our clinical setting, we have been seeing rising numbers of food allergy patients," said Prof Tham, who heads the paediatric allergy, immunology and rheumatology division at the Khoo Teck Puat – National University Children's Medical Institute at NUH.

NUH and KKH said they were

unable to provide exact figures on the number of food allergy cases.

Both hospitals said they performed 60 per cent more allergy tests between 2022 and 2024. In these tests, known as food challenges, patients are exposed to allergens under clinical supervision to assess whether they are allergic to a specific food.

Prof Tham said the increase in allergies could be due to changes in diet and lifestyle, while Dr Chong pointed to an increased use of antibiotics by children, as well as the hygiene hypothesis – the theory that cleaner environments

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Researchers hope findings will bring greater support for affected kids, families

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reduce early exposure to infectious agents, leading to increased susceptibility to allergic diseases – as possible reasons.

A local study conducted between 2011 and 2013 on more than 4,000 children aged between 11 and 30 months found allergy rates of 0.51 per cent for cow's milk and 1.43 per cent for chicken eggs.

However, over the past decade, the prevalence has not been well-documented, Prof Tham said.

The study will provide an update to existing data on food allergy prevalence and, for the first time, evaluate the impact, as well as the social and economic burden, of food allergies in Singapore, the researchers say.

For instance, Prof Tham noted, a 2013 study in the United States found the economic impact of food allergies in children amounted to US\$24.8 billion (S\$31.6 billion), of which US\$20.5 billion was borne by individual families.

The researchers hope these new insights will bring greater social and infrastructural support for af-

ected children and families.

The study will also involve clinicians and researchers from the National University of Singapore's Yong Loo Lin School of Medicine, National University Polyclinics (NUP) and the NUS Saw Swee Hock School of Public Health.

It will entail two years of recruitment and two years of data analysis.

The first phase of the study began in February, with a target of surveying at least 2,000 parents and caregivers of children aged between one and two who attend routine developmental and immunisation visits at NUP.

They will be asked to complete questionnaires, with those reporting possible allergic reactions to food referred to NUH or KKH for further evaluation.

Of the 549 participants recruited by mid-June, 79 had reported a food allergy.

The second phase will begin in July and will involve about 400 children aged 18 and below, who have been diagnosed with allergies to milk, egg, peanut and shellfish for at least six months.



Ms Izlin Ismail and Mr Mohamed Huzaini, with their son Hayden Anash. Hayden, who was rushed to hospital at three months old after he experienced swelling after drinking milk formula, was later found to be allergic to milk, eggs and peanuts. He is participating in the study. ST PHOTO: SHINTARO TAY

Participants from the first phase of the study, as well as existing NUH and KKH patients, will be invited to take part in this phase, which will include questionnaires,

growth and nutritional assessments, as well as the collection of blood and stool samples.

Findings from the study will help identify nutrient deficiencies,

growth and metabolic abnormalities, in addition to feeding behavioural issues.

These findings will inform future guidelines and educational

materials on nutrition, dietary management, as well as mental health support for affected families.

The team is also working with groups like Singapore Parents of Eczema and Allergy Kids (Speak).

Speak director and creative head Izlin Ismail, 50, and her 13-year-old son Hayden Anash, are participating in the study.

Hayden was three months old when he had to be rushed to the KKH emergency department after experiencing swelling in his face and body after drinking a bottle of formula milk. He was later diagnosed with allergies to milk, eggs and peanuts.

Ms Izlin – who is also a studio manager at a creative agency – said that besides Hayden's medical expenses, the family has to spend more on groceries, as allergen-free milk and butter are often more difficult to find and pricier.

Awareness of food allergies has grown over the years, but more can still be done to make matters easier for parents of children with such allergies, she said.

For example, eateries can sometimes see questions about allergens in dishes as patrons being "fussy".

"I think restaurants and other places should be able to accommodate us and understand when we tell them we have a child with food allergies," Ms Izlin said.

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