

MIND
FOR THE
BODY

LEA WEE

Amy Tan, 11, was diagnosed with a peanut allergy when she was six months old. But it was not until she was five that her mother realised how serious this could be.

The 48-year-old housewife, who wanted to be known only as Mrs Tan, recalled: "We were at a birthday barbecue and she suddenly came up to me, complaining of chest pain. Then she started wheezing and was breathless."

Mrs Tan and her husband bundled Amy into a cab and headed first for a clinic, but redirected the cab to a hospital when she became drowsy 10 minutes later.

There, they were told that Amy was having a severe allergic reaction called anaphylaxis, probably triggered by peanut traces in the barbecued food, which could have killed her.

Since then, Mrs Tan said she has always carried an instant antidote called an EpiPen (below), which can be used to inject a shot of epinephrine, commonly called adrenaline. Thankfully, there has not been a need to use it so far.

The Tans' initial lack of awareness of the seriousness of their child's food allergy is not unusual. Not enough people, including doctors, realise how serious a food allergy can be, said Dr Lee Bee Wah,

who chaired a group of allergy experts to draft the first Ministry of Health (MOH) guidelines on managing food allergy for doctors last June.

The group also came up with a patient's guide to address what it sees as "the trivialising of true food allergy", a leading cause of anaphylaxis in Singapore.

The patient's guide shows how one can recognise the symptoms of an anaphylactic attack, what to do during an attack and how to use an EpiPen to revive a person in an emergency. The ministry's guidelines advise doctors on when to prescribe self-injectable epinephrine.

Anaphylaxis can be triggered in a person with a food allergy when he is exposed to the problem food. In severe cases, he can become breathless, lose consciousness or even die. An EpiPen acts within seconds to improve breathing and bring up the blood pressure while the ambulance is on its way.

The MOH guidelines are timely. A recent study by the National University Hospital found that fewer than one out of every 10 Singapore children with a peanut or tree nut allergy is prescribed an EpiPen. Tree nuts include cashews and walnuts but not coconuts. Nut allergies are common causes of food-induced anaphylaxis worldwide.



In contrast, more than six out of every 10 expatriate children in Singapore with the same allergies are given a prescription.

One possible reason is because peanut or tree nut allergies are more common in the expatriate population than in Singaporean children. But more worryingly, it could also be that doctors here are under-prescribing the EpiPen, or that parents do not want one because they find them unnecessary or costly, said Associate Professor Lynette Shek, who authored the study. An EpiPen costs around \$150.

Expatriate children are either prescribed the EpiPen overseas or, if diagnosed here, have parents who are more open to the prescription.

The MOH guidelines advise doctors to prescribe self-injectable epinephrine to people who have had a previous life-threatening anaphylactic reaction. They should also prescribe it to patients who have a severe peanut or tree nut allergy even if they have not had a previous life-threatening experience, especially when they also suffer from asthma.

The MOH guidelines were drafted against the backdrop of rising food allergies in the West. Some believe it is the next epidemic in allergies, after asthma between the 1960s and 1990s.

In the West, 6 to 8 per cent of a population have food allergies. The rise of peanut allergy has been the most rapid, doubling in countries like the United States, where about 150 people die every year of food-induced anaphylaxis.

It is unclear why food allergies are on the

rise in the West, but some theorise it is because of previous guidelines which encouraged parents to avoid introducing allergenic foods to babies, which then had the unintended effect of sensitising the infants to these foods. It is unclear why the rise of peanut allergy has been the most rapid.

There were no such guidelines in Singapore but it was not uncommon for doctors and parents here to follow what the Western experts say. The concern is that Singapore might not be spared from the rising trend of food allergies. Physicians say they are seeing more children with food allergies but are unable to give exact figures.

A recent survey shows that the KK Women's and Children's Hospital (KKH) sees one to two cases of food-induced allergy attacks every month.

While deaths have not been reported here, consultant paediatrician at Mount Elizabeth Hospital, Dr Liew Woei Kang, warns that if there is truly a rise in food allergy cases here, we can expect "accidents to happen", especially when there is little public awareness of the condition here.

There is only one support group for Singaporean parents whose children have food allergies but the group rarely has any activities.

Some schoolteachers have told parents that in an emergency, they are not comfortable with administering an EpiPen, as they are "not medically trained".

Restaurants and supermarkets here do not take the problem seriously and can be minefields for children with food allergies.

Expatriate lawyer, Mrs Asa Tucker, 43, whose two daughters, aged 11 and 12, are allergic to peanuts, finds it more stressful to dine out and buy food here compared to the United States, where she used to live.

Restaurants serve desserts with peanuts in

them, even when she asks them not to, and food products sometimes come with no ingredient lists. In the US, it is compulsory for food manufacturers to list the ingredients in their products.

Ironically, the low awareness of food allergy here has led to the rise in falsely diagnosed allergies, largely due to a proliferation of unproven tests. This is addressed in the MOH's guidelines.

There are at least five unproven tests used by doctors, nutritionists and laboratories, which do not test for immunoglobulin E (IgE) antibodies that are typically associated with allergies.

The danger of such tests is that a person can end up being wrongly diagnosed with a food allergy. This could lead him to miss out on important nutrients if he avoids certain foods. Said Dr Lee: "In children, it could prevent them from reaching their optimal growth and development."

The MOH guidelines recommend the skin prick test or a food-specific IgE blood test to find out if a person is allergic to a specific food.

If these tests are negative, but the child still shows signs of a food allergy, he may undergo other tests.

This could be an elimination diet, where the suspect allergenic foods are removed from the diet for a few weeks and then added back to the diet one at a time. It could also be the gold standard food challenge test, where a small amount of the problem food is introduced to the child under close medical supervision.

The over-diagnosis of food allergy is not just a problem in Singapore.

Said Dr Lee: "People tend to blame their symptoms on the food they eat. It is a global tendency."

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Food that can kill a child

Yet the problem of food allergy is not being taken seriously here. The Health Ministry has come up with a set of guidelines to address this problem

Cover Story

TRUE FOOD ALLERGY

The immune system overreacts to a harmless food protein and a small amount may trigger a serious allergic reaction.

Problems with digestion (abdominal cramps, nausea, vomiting and diarrhoea), skin (hives or welts), breathing, or feeling faint. In serious cases, it can kill a person.

FALSE FOOD ALLERGY

The immune system is not involved. The person can eat small amounts of the food without any serious reaction. Problems with digestion (cramps, bloating and diarrhoea). These can be caused by lactose intolerance, irritable bowel syndrome, or sensitivity to food additives. Seldom fatal.

SHELLFISH
A COMMON
CAUSE OF
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Food allergy myths and facts

MYTH My child has diarrhoea every time he drinks cow's milk. He must be allergic to it.

FACT The child may not necessarily be allergic to the milk. He may only be intolerant to it.

Food allergy happens when the immune system overreacts to a harmless food protein and produces antibodies, usually immunoglobulin E (IgE) antibodies, to fight it.

Upon repeated exposure to a small amount of the problem food, the IgE antibodies can trigger mild symptoms such as itching, hives, vomiting and diarrhoea. Or it can trigger a more serious reaction called anaphylaxis which constricts the airway, and causes blood pressure to drop or even death.

Food intolerance does not usually involve the immune system and is rarely life-threatening, although it can cause abdominal cramps, bloating and diarrhoea. Diarrhoea may happen after drinking milk because of lactose intolerance or trouble digesting the milk sugar lactose.

MYTH Frying destroys the allergen in food and makes it safe to eat.

FACT The food proteins in allergenic foods such as eggs, milk, peanuts, tree nuts and shellfish do

not break down easily when exposed to heat or to the acid in our stomachs.

But these proteins can undergo molecular changes which make them less allergenic. For instance, boiling peanuts tend to make them less allergenic compared to roasting them.

MYTH A mixed dish, for example, a salad with peanuts, is safe to eat after the allergen, the peanut, has been removed.

FACT Traces of the peanut would still be left in the salad which could cause a reaction.

In people who are highly allergic, that is, who have very high levels of IgE antibodies, all it takes is a trace amount of the substance, which could be invisible to the eye, to trigger a severe allergic reaction.

MYTH If I am allergic to peanuts, I should not take soya beans and green beans too, as they are all from the bean or legume family.

FACT People with a peanut allergy can tolerate other beans 95 per cent of the time. However, three out of every 10 people with peanut allergy are also allergic to tree nuts, such as almonds, walnuts and cashews, and are advised to avoid them.

MYTH Food allergy is for life.

FACT Most children outgrow their food allergies by the age of 10, with the exception of those who are allergic to peanuts, tree nuts and shellfish. Only two out of every 10 children will outgrow these allergies.

MYTH A child with egg allergy cannot be vaccinated.

FACT The measles, mumps and rubella vaccine, which has minute amounts of egg protein, can be given safely to a child with egg allergy.

But if he has had a severe reaction to eggs, he should avoid the flu vaccine, which is made using a higher amount of egg protein.

MYTH Eczema is caused by food allergy.

FACT Most cases of eczema are not caused by food allergy. However, food allergies may trigger or cause persistent eczema in infants and children. Food allergies are seldom associated with adult eczema.

Source: Dr Liew Woei Kang, a visiting consultant paediatric allergist and immunologist at Mount Elizabeth Hospital

Another study author, Dr Lee Bee Wah, a consultant paediatrician at Mount Elizabeth Medical Centre, said: "This suggests that the kind of food allergy a child develops may depend on the environment he is born into.

A photograph of a young child with dark hair, wearing a white short-sleeved shirt and a red skirt, crawling on a dark-colored couch with a red floral pattern. The child is looking back over their shoulder towards the camera.

The NUH study, published last year in the American Journal Of Allergy And

She said: "It was lucky we found out before we exposed her to any of those foods. She could have had a severe attack."

By Lea West

The website was set up by two expatriate mothers here.

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The Asthma & Allergy Association is holding a talk and a children's carnival on Saturday to mark Food Allergy Awareness Week this week. At St Joseph's Institution International. 9am. Free. Call 6618-2233 to register

Log onto www.facebook.com/airoptix.sg to find out more!

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