



LEA WEE

my 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 now 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 barbequed food, which

Since then, Mrs Tan said she has always carried an nstant 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

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 attack, what to do during an attack and how to doctors on when to prescribe self-injectable epinephrine.

Anaphylaxis can be triggered in a person 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.

ANAPHYLAXIS

This is triggered when a person with a food allergy is exposed to the problem food. Within seconds, he can develop symptoms such as breathing difficulties or a sudden drop in blood pressure. This can lead to death.



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 CAUSE OF FOOD ALLERGY IN SINGAPORE PAGE 16

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

> 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, onsultant naediatrician at Mount Flizabeth 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

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

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 a food-specific IgE blood test to find out if a person is allergic to a specific

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.

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 mmune 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

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

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

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

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 sova 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

recognise the symptoms of an anaphylactic use an Epipen to revive a person in an emergency. The ministry's guidelines advise

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

> like the United States, where about 150 people die every year of food-induced anaphylaxis.

In contrast, more than six out of every 10 peanut allergy has been the most rapid. 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

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

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

It is unclear why food allergies are on the

Shellfish a common cause of food allergy here

food allergies in teenagers here is shellfish - mostly shrimp and crab. Shellfish allergy affects as many as five out of every 100 teenagers, according to a study by the

National University Hospital (NUH). In comparison, fewer than one out of every 100 teenagers here has a peanut allergy.

The researchers suspect the unexpectedly high rate of shellfish allergy is connected to the high rate of allergy to dust mites here.

Senior consultant paediatriciar Lynette Shek, who authored the study, said: "Shellfish and dust mites share the same protein, tropomyosin. Hence, a person who is allergic to this protein in dust mites may also develop a hypersensitivity to the same protein found in shellfish."

She plans to embark on another study to test this theory. Dust mites are common in hot humid climates.

Said to be the largest study on food allergy in South-east Asia, the NUH study polled more than 23,000 local and expatriate children in Singapore and the Philippines aged between four and six, and between 14 and 16.

The older children have a higher incidence of shellfish allergy (about 5 per cent) compared to the younger ones (about 1 per cent).

The group embarked on the study on shellfish peanut and tree nut allergies to see if the trends in the two Asian countries would mirror those in the West.

These allergies tend to last through life, unlike say, egg, cow's milk or soya bean allergies, which children often

Prof Shek said: "There has been a substantial increase in peanut and tree nut allergies in the West over the last two decades. But we had the impression these are not as common in the East."

The children completed a structured questionnaire between August 2007 and February 2008. The findings confirmed the researchers' beliefs with one exception

Expatriate children, whether Asian or white, who were born in the West, had a higher rate of peanut or tree nut allergy (about 1.2 per cent), compared to children in Singapore and the Philippines (0.5 per cent). The figure for expatriate children was closer to those of countries in the Western

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,

including the food he is exposed to in

children born in the West are more likely to develop a peanut allergy as previous guidelines encouraged mothers to avoid peanuts during pregnancy and breastfeeding and to delay introducing them to their infants.

common here, another study by Dr Liew Woei Kang, a visiting consultant paediatrician at KK nen's and Children's Hospital (KKH), found it had overtaken bird's anaphylaxis at KKH.

allergic reactions to peanuts made up 14 out of 73 cases of food-induced anaphylactic shock. Shellfish and bird's nest each accounted for nine

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

There is some speculation that

Although peanut allergy is still nest as the top cause of food-induced

Between 2005 and last year, severe

Toddler Iffah (below), two, was found to be allergic to prawn, crab and eggs after a skin prick test. Her skin gets itchy and red when she eats these foods



Five out of every

100 teenagers in

Singapore have hellfish allergy

ST PHOTO: TED CHEN

Clinical Immunology, confirmed what other studies have found: the kind of food allergy a person develops may depend on his ethnicity.

The risk of tree nut allergy in Indians here and the risk of peanut allergy in Malays here is four times higher than that of ethnic Chinese, Malays and Indians also have a higher incidence of other allergic conditions such as asthma, said Dr Lee.

It is not known why this is so, she said, but this much is known: "Having an allergic condition predisposes people to developing a food allergy.

Madam Farah Dilah, 36, a housewife, found out that her two-year-old daughter, Nur Iffah Nasarudin, was allergic to shellfish and eggs last year. The girl was diagnosed n eczema and given a skin prick test for other allergies.

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

By Lea Wee

If your child has a food allergy...

1 Read food labels for ngredients. If in doubt, lo not let your child eat

2 Learn the alternative mes for the allerger

For example, peanut oil is also known as arachis oil and can be ound in salad dressings and even dog food. Get to know scientific names such as casein and whey which stand for cow's milk, and ovalbumin for chicken egg.

3 Teach your child to read food labels when he s old enough so that he will learn to look out for the allergens himself.

4 Ask what the ingredients are when dining out.

5 Get the help of your doctor to create an emergency plan.

This can act as a guide to the use of emergency medicines like antihistamines and an adrenaline auto-injector such as an Epipen in an

The plan should include information on the hospital closest to nome and school as well as the role of family members, school eachers and all carers in an emergency

6 Let your child wear a nedical alert card, bracelet or pendant when he eats out alone.

If he has an allergic reaction and is unable to speak, people will know he has a food allergy. 7 Carry an Epipen if it has been prescribed.

Source: Dr Liew Woei Kang, a visiting consultant paediatric allergist and munologist at Mount Flizabeth Hospita

For more information on where to go for egg, ngapore or how to make these dishes yourself, visit www.sneezvwheezv.com The website was set up by two expatriate mothers here

ust a few years ago, mothers were told to avoid allergenic foods during pregnancy and breastfeeding, especially if they had a family history of food allergies.

They were also told to delay the introduction of cow's milk to their babies until the age of one, to avoid eggs until the age of two and peanuts until after the age of three. Conventional wisdom stated such practices

could reduce a child's risk of food allergies and were codified in guidelines in countries such as the United States, Britain, Canada and Australia There were no similar guidelines here but it was not uncommon for paediatricians and parents here to follow such recommendations.

In recent years, however, it has become clear that the earlier research was based on little evidence and that such recommendations have not reduced the incidence of food allergies in the West.
The Ministry of Health's (MOH) first patient's

guide on food allergy states that mothers do not have to restrict their diets during pregnancy and breastfeeding as this may adversely affect their nutrition and that of their babies'.

Dr Lee Bee Wah, a consultant paediatrician at

Mount Elizabeth Medical Centre, said there is strong evidence to show that restricting the mother's diet may compromise the birth weight and growth of her baby.

Furthermore, there is good evidence to show that avoiding highly allergenic foods beyond a year does not reduce a child's risk of food allergy.

In fact, some researchers actually blame this practice for contributing to the rise in food allergies in the West, by preventing the child's immune system from developing an early tolerance to the allergenic food.

While it remains to be confirmed if the early introduction of solids can reduce a child's risk of food allergy, the US, Britain, Canada and Australia have taken turns to revise their guidelines in recent years. They now tell mothers not to restrict their diet during pregnancy and breastfeeding and to introduce solids to babies at four to six months.

The MOH patient guide echoes this, recommending that mothers start their babies on solids after four months.

However, due to the lack of evidence, both Western and local experts are unable to say when exactly highly allergenic foods, such as peanuts, cow's milk and shellfish, should be introduced to

Dr Liew Woei Kang, a visiting consultant paediatric allergist and immunologist at Mount Elizabeth Hospital, said there is some evidence from countries with low food allergy rates that it is better to introduce these foods earlier.

For instance, peanut sweets are introduced to Israeli infants as early as eight months, but the country's peanut allergy rate is one of the world's lowest, at 0.17 per cent in one study.

Dr Liew's advice: "Introduce only one solid food a week, starting with a small amount and gradually increasing it over the days of the week. f the child tolerates it, move on to another food.

The type of food chosen depends on one's culture and should meet the nutritiona requirements of the infant, he said.

The patient's guide to understanding food allergies is available online at http://www.moh.gov.sg/mohcorp/publications.aspx?id=24736.

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 6618-2235

Cover Story

Delaying intake of allergenic food in infants does not help

Advertising Feature

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