

# Allergic rhinitis on the rise among children



LEA WEE

Environmental factors, the overuse of antibiotics and underexposed immune systems may be causing more children to become sensitised to allergens such as the house dust mite

**F**or Lee Yang Fu, an attack of the sneezes would be a warning that something worse than a runny nose was about to occur.

Almost always, it meant he would also get an asthmatic attack and have to be hospitalised.

He was in and out of hospital so much that he missed six months of his first year of kindergarten and had to repeat that academic year. Things got slightly better in primary school. Yang Fu, now 16, said he was able to go to school 75 per cent of the time.

The problem was that the antihistamines – medication to relieve inflammation – he had to take for the runny nose made him drowsy.

It made his ability to concentrate so poor that he failed all his subjects from Primary 1 to 4.

But gradually, with the help of a steroid nasal spray and a procedure to cut away the excess swollen tissue in his nasal passages, he slowly got better.

Now the Secondary 3 student attends school 90 per cent of the time and has an asthmatic attack only once or twice a year.

Yang Fu's experience may not be that unusual in time to come.

More children here, as well as those in developed countries elsewhere, are developing allergic rhinitis.

This happens when the body's immune system becomes sensitised to certain substances, such as the house dust mite, and gives rise to symptoms such as sneezing, blocked nose, excessive nasal discharge or itching.

It is different from infective rhinitis, or the common cold, which ceases once the infection runs its course.

The International Study of Asthma and Allergies in Childhood (Issac) questionnaire surveys found that the cases of allergic rhinitis in six to seven-year-olds in Singapore rose from 6.3 per cent in 1994, to 8.3 per cent in 2001 and 8.7 per cent in 2003, said Associate Professor Anne Goh, head and senior consultant of allergy service at the department of paediatrics at KK Women's and Children's Hospital (KKH).

Thirty-seven countries were covered in this study and most of them – 67 per cent – showed an increase in the prevalence of allergic rhinitis.

The problem was significant enough for the Ministry of Health to draw up its first clinical guidelines on the management of allergic rhinitis in 2010.



PHOTO: DIOS VINCOY JR FOR THE STRAITS TIMES  
**Sixteen-year-old Lee Yang Fu failed all his subjects from Primary 1 to 4 because the antihistamines he had to take to relieve his nasal inflammation made him drowsy in class. But with the help of a steroid nasal spray and a procedure to cut away the excess swollen tissue in his nasal passages, he slowly got better.**

rising. For instance, the Issac noted that the cases of eczema in six to seven year olds in Singapore rose from 2.8 per cent to 8.9 per cent from 1994 to 2001.

The number of asthma cases had been rising and may have reached its peak at around 20 per cent, said

Dr Lynette Shek, the head and senior consultant at the division of paediatric allergy, immunology & rheumatology at the National University Hospital.

Several reasons for the rise of allergies have been proposed, she said.

One popular hypothesis is that with the general decrease in the number of infections over the years, children today are underexposed to bugs and mites, so their immune systems are more sensitive and tend to overreact.

The overuse of antibiotics has also been blamed for the rise of allergies.

Dr Shek said: "Antibiotics wipe out both good and bad bacteria in the body. But children need good bacteria for a healthy immune system. Without a healthy immune system, their risk of allergic reactions is increased."

Another possible reason for the rise in allergies, she said, is the increase in the amount of environmental pollutants, such as cigarette smoke, which irritates the lining of the airways, including that of the nose (leading to allergic rhinitis) and lungs (leading to asthma).

AT LEAST

10%

OF CHILDREN WITH ALLERGIC RHINITIS HAVE SYMPTOMS SEVERE ENOUGH TO AFFECT THEIR QUALITY OF LIFE

## KIDS ARE VULNERABLE

While most of the cases of allergic rhinitis here are mild, about 10 to 20 per cent of the cases in children are moderate to severe and can affect a child's quality of life, said Prof Goh.

She said: "The symptoms can affect the child's quality of sleep and the ability to perform well the next day. It can also affect the child's ability to exercise."

It can lead to dry mouth and snoring, if the child is breathing through the mouth

due to a blocked nose, and sinusitis, which is the inflammation of the sinuses (nasal cavities around the nose).

Dr Liew Woei Kang, a consultant paediatric allergist and immunologist at SBCC Baby & Child Clinic at Gleneagles Medical Centre, who is also president of the Asthma and Allergy Association in Singapore, said children tend to have more severe symptoms as their nasal cavities are narrower and get obstructed more easily.

Children with allergic rhinitis are more likely to suffer from asthma-related events and require hospital admissions, added Dr Chiang Wen Chin, of Chiang Children's Allergic and Asthma Clinic at Mount Elizabeth Medical Centre and a visiting consultant and adjunct associate professor at KKH.

A study she authored, which was published in the Pediatric Pulmonology journal last year, found that allergic

SATURDAY, MAY 25

## I CAN! (The Children's Asthma And Allergy Network) Public Symposium:

Paediatricians at the National University Hospital will advise parents and teachers on how to manage allergies and asthma in school. They will also highlight the link between asthma and sports, and the impact of eczema and allergic rhinitis on children.

NUHS (National University Health System) Tower Block, Level 1, Auditorium. 9.30am to 12.30pm. Free. To inquire or to register, e-mail enquiry@ican.com.sg or call 6772-5465/6772-5740. Register by May 10.

rhinitis accounts for as high as two-thirds of all childhood chronic rhinitis, which can also be caused by infections. Environmental allergens include dust mites, cockroaches, and cat or dog dander.

The study surveyed 6,600 children aged six months to 19 years seen at KKH from March 2001 to March 2009.

## CONFUSION AMONG PARENTS

Although the triggers and treatment of allergic rhinitis are well documented, there is still confusion among parents about these, said doctors.

For instance, some parents believe food such as dairy products and eggs can trigger allergic rhinitis, but there is little evidence for this, said Dr Shek.

Instead, avoiding such nutrient-rich food may be detrimental to a growing child, she said.

Also, parents are reluctant to have their children use steroids even though one of the most effective types of medication for allergic rhinitis is a nasal steroid spray.

Dr Shek said the amount of steroids in the nasal spray is so small it is safe to use.

Parents can look for answers to their queries in a patient's guide published alongside the clinical practice guidelines, which are available on the Ministry of Health website.

Dr Liew said many parents tend to accept their child's allergic rhinitis symptoms as a fact of life because "everyone at home sneezes in the morning anyway".

But there is a difference between the common cold, an acute infective rhinitis which lasts only for a while, and allergic rhinitis, which children generally do not outgrow.

The latter can be controlled through medication and avoiding allergens such as house dust mites.

Dr Liew said house dust mites and dust are not the same thing.

He said: "Physical dust is a pollutant from construction sites, vehicle exhaust and industrial gases. House dust mites are microscopic insects which are common in households."

Some useful steps parents can take to avoid house dust mites are to keep soft toys away from beds and to wash bedsheets and pillowcases in hot water.

Other helpful measures include using house dust mite covers and vacuum cleaners fitted with a high efficiency particulate filter, which can retain microscopic allergen particles, said Dr Liew.

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ST FILE PHOTO

## Antibiotics not the answer to allergies

**T**he first clinical practice guidelines on treating the common cold and allergic rhinitis by the Health Ministry spell out when antibiotics should be given as treatment.

Doctors should not start antibiotics or antibacterial medication for the common cold, which is a viral infection, unless symptoms worsen or persist beyond 10 days.

This is to reduce the rapid emergence of antibiotic resistance, which is becoming a global problem, said Clinical Associate Professor Siow Jin Keat. The senior consultant at the department of otorhinolaryngology at Tan Tock Seng Hospital led the workgroup which drew up the guidelines.

If antibiotics are used indiscriminately, it results in the bacteria developing immunity against them.

Prof Siow said patients should not ask to have antibiotics for a cold, or "doctor hop" to get them.

The guidelines, which were published in February 2010, include an online guide for patients.

Prof Siow said the guidelines seek to clarify for doctors and patients the differences between the common cold (known medically as acute viral rhinosinusitis) and allergic rhinitis.

The common cold is a condition which affects children frequently and adults about twice a year. It lasts about a week.

Allergic rhinitis, which affects

about 30 per cent of the population, is perennial and may last for many years. Patients often think they have a perpetual cold.

Both the common cold and allergic rhinitis have similar symptoms of an itchy and runny nose, sneezing and a blocked nose.

But their treatment is different. The treatment for the common cold is supportive. It includes rest and the use of nose drops to clear the nasal blockage and short-term antihistamines, which ease inflammation.

The treatment for allergic rhinitis includes identifying and avoiding the allergen, the use of intra-nasal steroids and long-term antihistamines, both of which relieve inflammation.

Prof Siow said the guidelines are timely, because of a rising incidence of allergic rhinitis and asthma in urban societies, a trend which has been noted by epidemiologists in the past 30 years.

This has an impact on Singapore, which has a highly developed urban environment, said Prof Siow.

He said that a 1991 report showed that allergic rhinitis in the United States was more prevalent in children growing up in states with greater urban environments such as New York, compared with those who grew up in states with more rural environments, such as Iowa.

Studies in Finland and India support this finding, he said.