

# Allergies & Asthma

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## ★ FOOD FEARS

# Deadly threat mounts

**Allergies rising at epidemic pace, expert confirms**

**Theories abound on why numbers are increasing**

Theresa Boyle  
Staff Reporter

Taped to the wall in the principal's office at Roselands Junior Public School are photographs of 12 students. Of the 330 children who attend this west-end school, these dozen faces are ones that school board administrators want teachers and other staff to commit to memory.

That's because these youngsters have severe and even life-threatening allergies. Having their pictures posted in the principal's office — as well as in the lunchroom and in every teacher's daybook — will help

staff quickly recognize them and jump to action should they ever run into trouble.

Without immediate attention, these children could die within minutes.

"It's important that all the staff know who those 12 students are and who have the highest degree of concern," explains principal Gary Kamino, adding that most have severe allergies to peanuts or bee stings.

Such precautions have become *de rigueur* in schools, as the number of students suffering from allergies rises.

In fact, the province is debating a law that would set food safety standards for all schools and make it mandatory to have an allergy management plan in place. (For more on Bill 3, see page J4.)

"What we do in schools now is standard procedure," says Kamino, who has seen an increase

► Please see **Epidemic, J2**

## ★ HIDDEN DANGERS

# Making labels easier to read

**New legislation targets allergens**

**Ingredient lists can be confusing**

Peter Krivel  
Staff Reporter

The importance of reading labels really hit home to Lee Parpart a couple of years ago when she was learning how to deal with her toddler's severe food allergies.

"I was still learning about her allergy. I was trying things out when I gave my daughter a small piece of soy cheese," Parpart says. "I was thinking, 'It's not cheese, it's soy cheese.'"

Her daughter Bridget, eight

months old at the time, suddenly became covered in hives and couldn't breathe. Paramedics called to the house gave her epinephrine.

"I was told later that the soy cheese contained casein, a milk protein," Parpart says. "Who would have known that?"

That knowledge could be available as early as next year, when some Health Canada amendments to food labelling regulations take effect.

It means the list of ingredients on a package will have to include common names. No more polysyllabic nonsense, such as lactoglobulin or lactalbumin, when "milk" will do.

Manufacturers will have to

► Please see **Ingredients, J2**



### Quiet killers

These top 11 allergens, which account for 90 to 95 per cent of all food reactions, will soon be required reporting on all food labels in Canada:

- **Peanuts:** can be hidden in cookies, ice cream, chocolate bars and peanut oils.
- **Tree nuts:** almonds, Brazil nuts, cashews, hazelnuts, macadamia nuts, pecans, pinenuts, pistachios and walnuts. Can be hidden in nut-flavoured coffee.
- **Sesame seeds**
- **Milk:** including cheese, chocolate and ice cream.
- **Eggs:** can be hidden in glazes on baked goods.
- **Fish:** can be hidden in pizza toppings and other sauces, such as anchovies in Worcestershire sauce.
- **Crustaceans:** crab, crayfish, lobster and shrimp.
- **Shellfish:** clams, mussels, oysters and scallops.
- **Soy:** can be hidden in bread, bread crumbs, meat-based pizza toppings and canned tuna in broth.
- **Wheat:** including breads, icing sugar, baking powder, paprika, seasonings and black pepper.
- **Sulphites:** including wines, grape juices, vinegars, molasses and dried fruits.

Source: Canadian Food Inspection Agency

Some of the most common food allergies are nuts, milk, wheat, eggs and shellfish. But avoiding these potentially deadly triggers can be tricky.

DICK LOEK/TORONTO STAR



## New labels simplify hunt for allergens

► **Ingredients** From J1

identify any ingredient that is a common allergen, such as peanuts, tree nuts, sesame, milk, eggs, fish, crustaceans, shellfish, soy and wheat, including spelt, kamut, oats, barley and rye.

Dennis Lein, a senior adviser to Health Canada's food regulatory program, hopes the new regulations will be in place by early next year. He points out that the new labels will be similar to those required in New Zealand, Australia, the United States and Europe.

"It's a wonderful initiative," he says. "The sensitive individuals who have had a problem will be helped by it."

The soy cheese incident wasn't the only time Parpart's daughter was affected by a food allergy. A few weeks before that, she had been given a frozen treat that contained another milk product and had an anaphylactic reaction, even though the confection only touched her lips.

"If these new changes were in effect, they would have clued me in," Parpart says. "I never would

have bought the soy cheese if casein was identified as a milk product. I didn't know what a milk product was. It was partially ignorance and partially poor labelling."

Laurie Harada, executive director of Anaphylaxis Canada, welcomes the changes and says this was one of her association's highest priorities when it made a presentation to Health Canada.

"Allergic consumers are not food scientists, and they need to be able to read labels and understand," she says. "There are also a lot of people who buy for these consumers, and they need to read labels and understand what to avoid."

Even so, Harada would like to see further changes, such as the legibility of the labelling and "may contain" warnings.

"What concerns us is that some people try to guess the risk involved in a 'may contain' warning, and then they go ahead and eat it or give it to their child. It's akin to playing Russian roulette. Maybe it's okay 10 times, but that 11th time, it might not be."



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Her daughter Bridget's severe allergies mean Lee Parpart has to scrutinize food labels. Parpart welcomes forthcoming changes to labelling laws, saying they could have prevented incidents in which she unwittingly gave Bridget foods she turned out to be allergic to.

Even with the new guidelines, Harada says consumers can never let their guard down.

"They should always read the ingredient label, because it can change. They should read it at point of purchase, when they put it away, and again before they serve it. If you miss some-

thing, you might pick it up during one of those steps."

Parpart suggests checking the label every time you purchase a product, because the ingredients can change. A product you've bought for years may suddenly contain a milk or peanut product because the manu-

facturing process has changed.

Sometimes a product produced in Canada may be safe, while the same product produced in an American plant contains allergens.

Anaphylaxis Canada sells Dining Out and Allergy Identification Cards that contain sugges-

tions for dining out safely, as well as information on allergens.

You can buy them by calling 416-785-5666 or 1-866-785-5660, or by visiting the website at [www.anaphylaxis.ca](http://www.anaphylaxis.ca), which is also an excellent resource on food allergies.



PAUL IRISH/TORONTO STAR

A massive research project is probing whether climbing allergy rates are linked to improved hygiene.

## The dirt on cleanliness

PAUL IRISH  
STAFF REPORTER

Is there such a thing as being too clean?

With allergies skyrocketing, some experts are beginning to ask that question.

A new Canadian research network of 80 scientists at 13 Canadian universities will explore the theory, among others, that increased hygiene over the past half-century has made some of us overly sensitive to aspects of our environment.

Participants in the AllerGen project at McMaster University in Hamilton, and funded by the federal government, hope to achieve breakthroughs in understanding allergies.

"We don't know exactly why allergies are on the rise, but there's been a steady increase the past two decades," says Dr. Judah Denburg, AllerGen's director and a professor specializing in immunology.

"And research shows it's not just better diagnosis. Something is going on and I'm not exaggerating when I say it's an epidemic."

work or school days.

According to Health Canada, non-food allergies are the most common chronic condition in Canadians 12 or older, ahead of arthritis, back problems and high blood pressure.

Some theorists, Denburg says, believe we have become too clean. The "hygiene hypothesis" suggests that as we have moved from more agricultural settings to relatively sterile city life, we have diminished our innate ability to resist allergies.

"We're not coming into contact with as much of the moulds, bacteria and other agents as our ancestors did, even 30 years ago."

He says some believe it's early, gradual and ongoing exposure to such foreign elements that strengthens the immune system, and that the allergies we're experiencing now are an overreaction because we lacked the benefit of that early exposure.

When born, he said, we are in a "default setting" and sensitive — but not severely so — to our environment.

Gradually we come into contact with microbes, viruses and other agents, and that exposure slowly pushes us toward a "normal setting," with a developed immunity to the invasive elements of our environment.

But to complicate the issue, Denburg says genetics probably play a big role.

AllerGen is already organizing a birth cohort, in which entire families will be intensively studied, both parents and children, as they move into adulthood.

"This will be very significant; it could go on for up to 30 years, maybe longer," says Denburg. "This won't be the first birth cohort for research, but we have the benefit of modern science and all that went before us."

Many questions will be explored in this research, but the focus is on fast-tracking the use of knowledge gained from clinical studies to improve diagnostics, medications and other care, and to develop better public policies for environmental, health and workplace safety.

Between 2005 and 2009, AllerGen will receive \$21.35 million from the federal Networks of Centres of Excellence program, which funds research across the country.

AllerGen will also address the shortage of allergists and allergic disease researchers in Canada by creating 100 new research trainee positions, while doubling the number of highly qualified clinical specialists and research scientists in the field.

## No shortage of theories for surging rates of allergies

► **Epidemic** From J1

in allergic students during his 20 years in the system. "For sure, there's more children coming forward with allergies. That's definitely gone up."

A new study in the *British Medical Journal* bears that out. Published earlier this year, the study found that the number of men susceptible to allergies has grown by at least 10 per cent in the past 30 years.

Blood samples of more than 500 men, taken between 1975 and 1998, were tested for sensitivities to 11 allergens, including grass pollen, pet skin flakes and house mite dust. The study showed "highly significant increases" in the numbers who tested positive, equivalent to a rise of 4.5 per cent each decade.

Allergies are increasing at epidemic proportions and have reached chronic levels, according to Dr. Judah Denburg, a McMaster University professor who specializes in immunology and allergies.

"Every survey everywhere in the Western world has shown that they're increasing exponentially. This is not an imagined thing. It's a real thing," he says.

One in three Canadians has some form of an allergy and that number is on the rise, Denburg warns.

Allergic reactions occur when the body's defence mechanism overreacts to something that is usually harmless, such as peanuts, pollen or cat dander.

In order to protect itself, the body creates antibodies targeted to the allergen. However, the next time the body senses that same allergen, the immune systems release massive amounts of chemicals and histamines — triggering symptoms that can affect the respiratory system, gastrointestinal tract, skin or

cardiovascular system.

Allergies can manifest themselves in many ways, including tingling of the lips, rash, wheezing and stomach cramps.

At the extreme end is anaphylactic shock. This explosive overreaction of the immune system can be fatal, and is characterized by swelling, difficulty breathing, abdominal cramps, vomiting, diarrhea, circulatory collapse, coma and death.

According to Anaphylaxis Canada, up to 2 per cent of Canadians live with the risk of an anaphylactic reaction. More than 50 per cent of Canadians know someone with a life-threatening allergy.

Toronto allergist Mark Greenwald says allergies are part of the evolution of the immunoresponse system.

"It's probably a genetic leftover of a defence system from a long time ago," he says. "They probably evolved to get rid of a foreign invader. Foreign invaders back then were parasites and worms. If someone has a worm

training they need to ward off allergens later in life. (See story at left.)

Denburg is studying another theory that suggests a correlation between the growing obesity rate and increasing incidents of allergies and asthma.

"There appears to be lots of reasons to believe they might be connected, in terms of the immune system, in terms of metabolism, in terms of a tendency to develop both these chronic conditions in parallel," he says. "It looks like there's more to it than just a chance occurrence."

Although there can be a genetic link to allergies, your risk may be higher depending on where you live. Southern Ontario is known as a hot spot because of its high pollen count and smog.

"There are lots of environmental issues in terms of air pollution and its mixing with the pollens in the air and other factors to make allergies worse," Denburg says.

As the allergy rate rises, so does its cost to our economy.

"The amount of lost work, time and productivity is in the tens of billions (of dollars) across North America," Denburg says.

At Roselands Junior Public School, the cost of allergies is measured in days absent. But principal Kamino tries to keep that to a minimum, using measures to help students who suffer from allergies. For example, peanut butter is forbidden.

And in Kamino's desk drawer is a collection of EpiPen syringes filled with epinephrine, which can counteract anaphylactic shock. Staff have been given a workshop on how to administer the syringes.

"They're there in case of an emergency. I've never had to use one yet, and I hope I never have to," he says.

### Southern Ontario is known as a hot spot because of its high pollen count and smog

infection, a lot of the things that happen in your body are very similar to an allergic reaction."

Theories to explain the increasing occurrence of allergies abound.

Joseph Butchey, an associate professor of medicine at the University of Western Ontario and an expert on allergies, says it's easier to diagnose allergies today. "We're better able to detect it," he says.

Butchey also points to the "hygiene hypothesis," which finds that households in developed countries are so clean that our bodies aren't getting the early