

## THE PEANUT PROBLEM

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***Abstract:***

*This paper deals with the explosion of allergies in recent years, as well as the obstacles that the hospitality industry faces in adapting and adjusting to the needs of consumers.*

***Key words:*** allergies, hospitality industry

***JEL classification:*** M5

### INTRODUCTION

All over the world, food allergies are approaching epidemic levels. A molecule in the protein of a peanut or a molecule in a crustacean can create an adverse reaction.

For an allergic person, any meal could be the last. Very often, children are victims and it is possible that sometimes even doctors cannot help them.

Restaurants have become a battlefield. The hospitality industry is trying its best to make our food as safe as possible, because we are talking about life and death.

Food allergies are not a myth, they are real and sometimes they can be fatal.

Researchers are only now beginning to decipher why some people react violently to foods that, for most of us, are harmless.

Peanut cultivation is a very interesting crop. Peanuts are actually a pod, they symbiosis with nitrogen-fixing bacteria, an incredible feature, especially in crop rotation, because it does not require fertilization. Peanuts do not fertilize.

In recent years, the reputation of peanuts has deteriorated, being seen as an enemy lately. For more than a century, peanuts have been the classic "Made in the USA" snack. Cheap, nutritious and everywhere.

Above the earth are small tufts of crown, like bushes, and peanuts form and grow underground.

Peanuts are a staple of agriculture in southwest Georgia. Two out of five US peanuts come from crops in Georgia.

A survey of 40,000 children in the United States found that 8% of them had a food allergy, or one in 13 children, that is, six million in the United States<sup>1</sup>.

According to available statistics, there has been a 50% increase in the last two decades alone.

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<sup>1</sup> <https://www.nih.gov/news-events/news-releases/study-finds-peanut-consumption-infancy-prevents-peanut-allergy>

There are eight major food allergens that cause over 90% of allergic reactions to food. Crustaceans, hazelnuts, eggs, milk, fish, soy, cereals ... and the most common among children: peanuts.

Peanut allergy is the most common food allergy, affecting one in four children allergic to food.

The crisis is global. In most countries that keep statistics, there has been an increase in allergies in children.

In Great Britain, the risk of a person getting to the hospital because of a food allergy has tripled from 20 years ago.

Nearly two million Britons are at risk at every meal.

How can such a scenario be described, the proteins in the food in question, to which a person is allergic, if they are intentionally or accidentally consumed, they end up in the blood, where they are detected by an antibody called immunoglobulin E, or IgE.

You can have a specific IgE for something. That is why some are allergic only to cat hair, and others are allergic only to peanuts. It's like a security system, who sits there and watches and perceives the peanut or a certain food as an invader who comes to harm the body.

That's why the immune system is a little upset, because it shouldn't attack the natural things in our environment. But it does. The worst effect is anaphylactic shock, which is a quick and violent attack by the body to eliminate an intruder.

Anaphylactic shock is a term that describes a type of severe allergic reaction that sets in quickly.

Patients who go through such an experience often describe it as "my throat is tightening," "narrowing," or "it itches."

The lungs feel full, the breathing becomes wheezing, difficult, chest compression ...

This can often affect the digestive system, so the patient vomits, often profusely. Another effect is to increase the heart rate, lower blood pressure and produce bronchospasm, the scientific term for, difficulty breathing.

In such cases, all the doctors advise us to do, beyond avoid exposure to allergens, is to cancel that reaction with epinephrine.

Epinephrine, also known as adrenaline, is a hormone that is easily administered by self-injection. It is very strong and every time it is administered, hospitalization is required.

It actually relaxes the muscles around the lungs, making it easier to breathe. Adrenaline saves the life in such situations of an allergic person, who suffers from anaphylactic shock.

Twenty years ago, there weren't that many allergies. There is rarely an allergic reaction to peanuts or soy. They didn't seem to be a problem.

But the restaurant world has been radically changed by food allergies.

The hospitality industry has learned that allergies are a joke when in 2016 a restaurant owner in the UK was tried and sentenced to six years in prison for culpable homicide<sup>2</sup>. How did it all happen?

In Yorkshire UK, a 38-year-old local, Paul Wilson, ordered food for his home at Indian Garden Restaurant and ordered a hazelnut-free curry. Then Brad went home. Simple. That was...

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<sup>2</sup> <https://www.bbc.com/news/uk-england-york-north-yorkshire-41926399>

The ambulance service received an emergency call from Mr Wilson's roommate. When the cops arrived, there was a portion of Indian food on the table. It was ready. There was cutlery. There was a fork on the table, as if someone had tasted the food.

Paul had a severe reaction to it. It was so severe that he collapsed and died on the bathroom floor.

That restaurant was part of a restaurant chain owned by Mohammed Zaman.

Police have begun investigating Wilson's death and the kitchens of Mr. Zaman's restaurants. They sent samples from Paul's last table to a lab for testing.

The outcome? The tikka masala chicken sauce contained large amounts of peanuts. In fact, 19% of the tikka masala chicken sauce was peanut.

There must have been enough peanuts in the tikka masala sauce for a teaspoon to kill him.

Investigators then turned their attention to the Indian Garden restaurant. Surveillance cameras showed a man entering the restaurant, Paul Wilson. He sat at the counter, he seemed to be ordering food.

The order was written on a piece of paper that reached the kitchen. On that piece of paper it was clearly written "no peanuts." When investigators found the lid of the trash can in Paul Wilson's house, it said "no nuts."

Police found that Mr. Zaman, having financial problems, borrowed a lot of money guaranteeing with the restaurants he owned.

Thus, they considered that it could be a reason to replace almonds with peanuts, as they are cheaper. A meeting was held with one of the vendors, and the restaurant owner asked the vendor if there was a cheaper alternative to the almonds used in his food. When Mr. Zaman replaced almonds with peanuts, suppliers claim to have warned them of the potential risks to allergic customers. However, Zaman claimed in the trial that he had not been warned. Restaurant menus remained unchanged. The menus did not state that peanuts were eaten. And there was no evidence that the employees had been trained.

So, The Crown Prosecutor's Office has decided to start criminal proceedings. They claimed that the negligence shown by Mr. Zaman was so serious that it was a criminal act.

Under no circumstances could Paul Wilson have ordered anything safe from that kitchen.

So many opportunities to fix things were missed, so that an accident was almost inevitable.

This would be the first charge of a restaurant owner in a food allergy case. There were some reservations about whether this case should be investigated. There were no proceedings for such an offense.

After a day of deliberations, the court found Mohammed Zaman guilty of manslaughter for gross negligence. He was sentenced to six years in prison. Six years for manslaughter. It is a sentence that conveys to restaurants and those who sell food on the street that they have a duty to take care of their customers.

Paul Wilson's death is not alone.

Almost 50% of food allergy deaths are caused by food in restaurants or elsewhere.

But doctors are still struggling with the basic question: why? And why now?

We want to understand what makes an organism hypersensitive, hyperreactive to another organism that would react normally.

It's not clear and it's not obvious at all.

Such a significant and rapid increase in incidence shows that something is changing in our environment.

We know that genetics has a role to play in this.

But what part of the environment can push us to allergies? We need to look at how things have changed.

One of the theories focuses on the population of microbes in our intestines: the microbiome. The current population is no longer what it used to be.

At birth or in the first year of life, babies receive antibiotics much more often. The effect? It eliminates bacteria from the intestines, the normal flora. We are changing to a much cleaner state.

We used to catch germs when we play outside, when we come in contact with animals and other children.

It is difficult to determine what causes allergies in the environment, but something does.

Most likely it is a combination of environmental factors that change the microbiome.

The lack of bacteria can confuse the immune system, as well as the absence of larger aggressors.

Experts believe that modern medicine and sanitation have altered an ancient balance in our body. Profound changes have affected the foods we grow and eat.

The whole process of cultivating plants and agriculture has made food much more edible,

but with the industrialization of food production, some naturally occurring substances in food have been further reduced. Including non-nutritive substances, which may not be toxic, but are part of the food and we have come to eat them. If we eliminate them completely, as we eliminate microbes from the body, I don't think we can function normally.

Food allergies can change. Many people diagnosed in childhood get over allergies, but will continue to avoid those foods because they do not know.

Food allergies affect 4% of adults, but 30% of adults believe they have an allergy.

The current diagnosis is based on the reaction to a food, then blood or skin tests are done.

If we have an allergic reaction after eating a peanut and the specific IgE index is positive or if the skin test is positive, it is detected as a food allergy.

The skin test is the best known test for food allergies.

Tiny amounts of potential allergens are put under the skin to cause weak but detectable reactions.

Another method is to test the patient's blood to detect the immunoglobulins present.

But despite years of improvement, no method is truly reliable. Unfortunately, the allergy tests we have are not perfect.

So the only way to know for sure if we are allergic is to eat the food and see what happens. It's called the food challenge and it puts the body to the test.

The patient stays in a room at the allergist's office and eats the food to which he is allergic. Start with small amounts and increase them over time.

If the patient has no reaction, then ... he has no allergy to that food and can reintroduce it into his diet.

Avoiding certain foods can even be a cause of the problem. A notable element in food allergy medicine has been the radical reinterpretation of early exposure.

In the year 2000, The American Academy of Pediatrics has recommended that children under three years of age not be given peanuts and peanut butter.

But in 2008, a study showed a very low prevalence of peanut allergy in Israel. That result was linked to Bamba, a peanut-based snack eaten mostly by young children.

If peanuts are introduced into the diet of a child between four and 11 months of age, they can significantly reduce their risk of developing an allergy. Up to 80% in high-risk children. Now, the Academy of Pediatrics has changed the recommendation, saying, "Give your child peanuts."

The same concept, "eat food", is now being tested in several new medical treatments.

All of them involve the introduction of food protein into a person's diet. Starting with small amounts, until the immune system recognizes it and can tolerate larger amounts.

It's encouraging for allergens and it's good news for peanut growers.

In fact, peanut growers have begun to fund allergy research.

Their alliance, the National Peanut Council, has already contributed nearly \$ 22 million<sup>3</sup>.

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<sup>3</sup> <https://www.georgiaencyclopedia.org/articles/business-economy/peanuts/>