

Basic Things You Need to Know about Food Safety & Hygiene

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Have you ever suffered from food poisoning? Then you know better than anyone why food safety and hygiene are so important!

Every food manufacturer takes the food safety standards to heart. On top of this, the Agency for the Safety of the Food Chain ([AFSCA](#)) is responsible for guaranteeing food safety throughout the food system. The Hazard Analysis Critical Control Point (HACCP) system is the process control system that identifies potential hazards during the food production process and forces action to prevent bad things from happening. The AFSCA strictly monitors and controls each step of the food production processes using the HACCP system, which has become an integral part of the food system. ([Searo – WHO](#))

Nevertheless, *food safety is not a foolproof system*. Otherwise, you wouldn't have gotten sick that one time, right?

Let's look into what food safety is and why it's important to strive for it, how food can be contaminated and what can be done to prevent the consumption of unsafe foods.

We've also got some exciting news at the end we want to share!

What is food safety?

Food safety refers to the production of food in a way that is safe for consumption, limiting the chances of harmful substances being present that could make you sick in the short or long term. Hygiene is an important part of this. ([Searo – WHO](#))

How can food be contaminated?

Contamination happens when living microorganisms are transferred from point A to point B. Food can be contaminated with toxins, bacteria, parasites, foreign materials (like pieces of packaging) etc. Bacteria can spread when you're buying, preparing, and storing food. Even though the food safety standards are very high in Europe, it's very difficult to 100% guarantee safe food. Yet, everyone is striving for it!

Why is it so difficult to guarantee food safety?

Let's start with the seemingly obvious. You can usually recognize good quality food by the quality of its origin, color, flavor, texture, and processing method. Logically, bad quality foods would show visible spoilage, dirt, discoloration, bad taste or bad odor. ([Searo – WHO](#)) The hard thing is, however, that bacteria, viruses and the like are untraceable by the naked eye. You can't taste or smell them either. When you eat a piece of unsafe food, you'll most likely get sick. That time when you got food poisoning, you most likely didn't notice the food was bad either, did you?

Salmonellae (found mostly in animal products and especially poultry) are some of the best known pathogenic bacteria. They are undetectable and cause food poisoning symptoms (which usually go away without any lasting consequences if treated well).

Nevertheless, a contaminated food product can be dangerous without posing a risk to your health. Usually what matters is how big your intake of the substance is.

Let's look at an example. On the one hand, water isn't dangerous, but it can be if you drink too much of it. On the other hand, small consumptions of other substances can pose an immediate risk. Just think about people with allergies and intolerances for example.

New project to facilitate food safety assurance (AgrEUfood)

At Alberts, we take food safety and hygiene very seriously. We have carefully selected our suppliers to ensure that, even during transportation, they store the ingredients at the legal storage temperatures. After all, once cut and peeled, fruit and veggies lose their barrier to the outside world and their natural defenses are compromised. That's why, from harvest to production, we keep our fruit and veggies frozen at -18°C as suggested by the AFSCA. We train the staff cleaning the machine to ensure hygiene and safety at all times as well.

In general, trying to avoid all potential hazards during food production requires a lot of testing for bacterial contaminations. This is actually a complicated and expensive process. Currently, this is done by regular sample testing in specialized labs. It can take up to a week for the results to come in. Consequently, contaminations are often not detected in time.

With the [AgrEUfood](#) project, which is approved and funded by Interreg Vlaanderen-Nederland, all research partners will be working towards an affordable and fast way to test food products for potential bacterial contaminations during the production stage.

Recently a sensor technology was developed that, using synthetic receptors and thermal resistance measurements, can detect such bacterial contaminations. After first successful lab tests, the [Alberts Smoothie Stations](#) will be one of two real-life use cases in which the sensors will be tested.

Sources:

[Kids Health](#)

[Voedingscentrum](#)

[Eufic](#)

[AFSCA](#)

[Food and Health](#)

[Searo – WHO](#)

[Grensregio](#)

[Vilt](#)