



SEISMO INFO

04/2026



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EARLY DETECTION FOR FOOD SAFETY – HIGHLIGHTS

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very important info



important info



interesting info

MICROBIOLOGY

★★★★ Genomic analysis of *Listeria monocytogenes* in Swiss cheese facilities

Whole-genome sequencing of 194 *Listeria monocytogenes* isolates from **50 Swiss cheese facilities** over **24 years** revealed 23 clonal complexes (CC), mainly CC1, CC3 and CC101. Persistence of CC101 and CC3 strains for up to 7 years reflected **CC-specific stress adaptation**, such as Stress Survival Islet 1 (SSI-1) in CC3/CC517. Findings show that *L. monocytogenes* persistence in cheese production is **primarily lineage-dependent**. [IntJFoodMicrobiol](#), 11 pages. (16.05.2026).

★★★ Foodborne viral contamination in edible seaweeds

A **pilot study** from **Spain** assessed viral contamination in commercial **seaweeds** (fresh, dried, powdered), detecting human norovirus genogroups II (**HuNoV GI**) RNA in 26.7% of samples—*Ulva lactuca* (20%) and *Sargassum muticum* (6.7%). Results highlight the need for sensitive, standardized detection methods for enteric viruses in complex seaweed matrices. [IntJFoodMicrobiol](#), 8 pages. (16.05.2026).

★★★ *Bacillus cereus* outbreak in Switzerland

A 2025 **Swiss school-canteen** outbreak of foodborne illness affected 27 children after consumption of “**Älplerma-gronen**,” (macaroni dish) with vomiting onset 40–90 minutes post-meal and severity linked to portion size. Epidemiological investigation and kitchen sampling implicated a **béchamel sauce** component, in which ***B. mosaicus* subsp. *ceruus* biovar *Emeticus* (*B. Emeticus*)** was detected, with inadequate temperature control during holding identified as the most likely contributing factor. This is one of the few reports of *B. Emeticus* ST164 implicated in food intoxication. [FSN](#), 1 page. (17.03.2026). Original Publication: [JFoodProt](#).

★★★ Raw milk quality from vending machines in Switzerland

This study assessed the **microbiological quality of raw milk** from 124 vending machines across **Switzerland**. Pathogens detected included **STEC** (3.2%), ***S. aureus*** (12.1%), ***L. monocytogenes*** (2.4%), ***Campylobacter* spp.** (1.6%), and ***Y. enterocolitica*** (29.8%), while methicillin-resistant *Staphylococcus aureus* (MRSA) and extended-spectrum β -lactamase (ESBL)-producing Enterobacterales occurred in 0.8% each. The findings highlight hygiene gaps and reaffirm the necessity of heat treatment and stricter monitoring standards for raw milk vending machines. [Pathogens](#), 24 pages. (17.03.2026).

★★★ The role of food in the transmission of *Helicobacter pylori* Infection

Helicobacter pylori infects about half of the world population, causing chronic gastric diseases and cancer. Evidence suggests that besides **person-to-person** transmission, **food may play a role** in its spread. *H. pylori* DNA and viable cells have been detected in milk, meat, and vegetables; however, definitive evidence confirming foodborne transmission remains lacking. Further research is required to clarify the role of food as a potential route of infection. [Foods](#), 44 pages. (15.12.2025).

★★★ *Enterococcus faecalis* and *Enterococcus faecium* survive microwave deactivation

Extensively drug- and heat-resistant *Enterococcus faecalis* and *E. faecium* in ready-to-eat meats present a serious public health concern due to survival during cooking, persistence in food chains, and spread of antimicrobial resistance. In Mansoura, Egypt, this study found 100% contamination (135/135) across 45 each of shawarma sandwiches, Hawawshi, and pastrami slices, highlighting widespread risk and limited treatment options. [npj Sci Food](#), (27.03.2026).

★ Polymyxin-resistant *Escherichia coli* found in vegetables from Brazil

Vegetables may serve as reservoirs of **polymyxin-resistant *Escherichia coli***, representing a potential route for antimicrobial resistance dissemination. In **Brazil**, ten resistant isolates were detected among 514 samples. Genomic and phenotypic analyses identified ***mcr-1* plasmids**, ***blaAmpC* genes**, and multiple sequence types, emphasizing the necessity of continuous monitoring of fresh produce. [Curr Microbiol](#), 12 pages. (10.03.2026).

★ Polymyxin-resistant *Enterobacteriaceae* from poultry farms in Brazil

This study investigated polymyxin-resistant *Enterobacteriaceae* from **poultry farms in Brazil**, finding that ***mcr-1* and *mcr-5* genes** are widespread, with *E. coli* being the primary carrier. Despite a ban on polymyxin use, resistance persists, with **75%** of resistant isolates exhibiting multidrug resistance. The study highlights the potential for zoonotic transmission of these resistance genes and emphasizes the need for enhanced surveillance and biosecurity measures. [Braz. J. Microbiol.](#), 10 pages. (18.03.2026).

★ Antimicrobial resistance in *Acinetobacter baumannii* isolated from ready-to-eat foods

This study examined 240 ready-to-eat foods (RTE) from four **Saudi** cities for *Acinetobacter baumannii*. The bacterium was found in **7.9% of samples**, mostly **multidrug-resistant (MDR)**, with OXA-type carbapenemase genes detected in 84.2% of isolates. Resistance to **fluoroquinolones**, **tetracyclines**, and **aminoglycosides** was frequent. These findings indicate that RTE foods can represent environments in which MDR *A. baumannii* may be detected. [Pathogens](#), 22 pages. (01.03.2026).

★ Disease burden from raw milk and cheese in the US, 2000-2020

A U.S. study (2000–2020) using CDC data, found raw milk and cheese pose **29× higher illness risk** than pasteurized dairy, linked to pathogens like ***Listeria***, ***E. coli***, ***Salmonella***, and ***Campylobacter***. States allowing raw milk sales had more outbreaks. True illness burden is likely underreported. Findings stress pasteurization's importance and stronger surveillance and awareness. [Trends Food Sci](#), (24.03.2026).

CHEMISTRY

★★★ Long-term sucralose exposure accelerates ovarian aging

Rising rates of obesity and diabetes have increased the use of **sucralose** in foods, but its reproductive effects remain unclear. Chronic intake may accelerate **ovarian aging and dysfunction** by disrupting gut microbiota and intestinal barriers according to a recent published study. [npj Sci Food](#), 45 pages. (24.03.2026).

★★★ Microplastics and neurotoxicity

This review explores the potential link between **prenatal microplastic exposure** and **congenital enteric neuropathies**, such as Hirschsprung disease. Microplastics, which can cross the placental barrier and accumulate in fetal tissues, are identified as **neurotoxic agents** that can disrupt neuronal development. The authors suggest that microplastic neurotoxicity may exacerbate the development of these conditions, leading to **intestinal motility disorders**, and recommend reducing pregnant women's exposure to microplastics as a preventive measure. [Front Toxicol](#), 9 pages. (24.03.2026).

★ Occurrence of Ustiloxin A and D in rice

Rice, a dietary staple for over half the world's population, undergoes processing stages that influence contaminant distribution. This study analyzed **ustiloxins A and D** in rice from **China** (Jiangsu, Anhui, and Fujian 2016–2018). Contamination was higher in unhusked and japonica-type rice, decreasing through processing. Findings emphasize the need for continued monitoring to ensure rice safety. [ResSq](#), 14 pages. (11.03.2026).

★ First Aflatoxin B1 occurrence in maize in Lower Austria

Climate change is facilitating the spread of crop pests and pathogens into new regions. This study reports the first detection of **Aflatoxin B1** (AFB1) in maize grown in Tulln, Lower Austria. AFB1 levels (4.47–29.49 µg/kg) and **Aspergillus flavus** presence were linked to **hot, dry conditions** and **corn borer infestation**, highlighting **climate-driven aflatoxin risks** in central Europe. [ChemRxiv](#), 12 pages. (22.12.2025).

★ Irrigated crops can accumulate drugs in their leaves

New research suggests that some crops—such as tomatoes, carrots and **lettuce**—store certain chemical residues mainly in their **leaves**. This may reassure consumers, since tomatoes and carrots are typically eaten as fruit or roots, not leaves. The study examines the safety of using treated municipal **wastewater** for irrigation. Researchers emphasise that understanding how plants break down substances in reused water is key to ensuring safe future farming practices and guiding possible regulations. [ScienceDaily](#), (15.03.2026). Original Publication: [Environ. Sci. Technol.](#)

★ PFAS exposure linked to weaker bones in teens

New research suggests that **early-life exposure to PFAS** chemicals, commonly found in everyday products, may negatively impact **bone development** in adolescents. The study found that higher levels of **PFOA** in the blood of teens were associated with lower forearm bone density, with varying links to other PFAS depending on exposure timing, and these associations were stronger in females, highlighting the importance of reducing PFAS contamination for long-term bone health. [MirageNews](#), 1 page. (18.03.2026). Original Publication: [J. Endocr. Soc.](#)

★ Urgent policy response to widespread dietary cadmium overexposure in France

The National Agency for Food, Environmental and Occupational Health & Safety (**Anses**) has issued an urgent **warning** to the French government regarding significant **cadmium exposure** in the population, primarily through food. Anses recommends immediate action to reduce cadmium levels at the source by **lowering limits in fertilizers**, particularly phosphate fertilizers, which are widely used in French agriculture. [LeMonde](#), 2 pages. (25.03.2026). Original Publication: [anses](#). Additional Information: [60 millions de consommateurs](#).

NUTRITION

★★★★ Teens using AI meal plans could be eating too few calories

Many teenagers use **AI** to create weight-loss meal plans, but a study found these plans often lack sufficient calories and balanced nutrients. Compared with a dietitian's plans, AI **underestimated** energy needs by about 700 calories and recommended more protein and fat but far fewer carbohydrates. Researchers warn such restrictive diets could harm adolescent growth and stress that AI should complement, not replace, professional dietary advice. [EurekAlert](#), (12.03.2026). Original Publication: [FrontNutr](#).

★★ Vegetarian diets and cancer risk

A pooled analysis of 9 cohorts (1.8 million participants) examined **cancer risks by diet**. Compared with **meat eaters**, **pescatarians** and **vegetarians** showed lower risks for several cancers, notably colorectal, breast, prostate, pancreas, kidney, and multiple myeloma, while vegetarians had higher risk of oesophageal squamous carcinoma and **vegans** of colorectal cancer. Vegetarian diets may influence cancer risk patterns. [LeMonde](#), 2 pages. (11.03.2026). Original Publication: [Br. J. Cancer](#).

★ Ultra-processed foods linked to poorer bone health

Higher consumption of **ultra-processed foods (UPFs)** was inversely associated with **bone mineral density (BMD)**, with stronger effects observed among participants aged <65 years and those classified as underweight. Moreover, elevated UPF intake was positively associated with a higher risk of fractures recorded in hospital inpatient datasets. [EurekAlert](#), (11.03.2026). Original Publication: [Br J Nutr](#).

★ Ultra-processed foods linked to higher risk of heart attack and stroke

One of the first large **U.S.** studies in a diverse population examined **ultra-processed food intake** and heart disease. Among 6,814 adults (45–84) without prior disease, higher intake (9.3 vs 1.1 servings/day) was linked to a **67%**

greater risk of death or major cardiovascular events. This risk remained even after accounting for calories, diet quality and factors like diabetes or obesity, suggesting processing itself plays an independent role. [ScienceDaily](#), (19.03.2026). Original Publication: [JACC](#).

★ **Ultra-processed foods linked to reduced fertility and embryonic development**

High intake of ultra-processed foods (UPFs) is linked to lower male fertility, slower early embryo growth and smaller yolk sacs. In a study of 831 women and 651 men, higher UPF intake in **men** was tied to **subfertility** and longer time to conceive, while in **women** it was linked to slightly **reduced** early embryo development. Findings suggest reducing UPFs may benefit fertility and early development. [EurekAlert](#), (23.03.2026). Original Publication: [Hum Reprod Update](#).

★ **Study uncovers mechanism explaining how obesity increases cancer risk**

Obesity is associated with increased cancer risk, but the mechanisms are not fully defined. In 747 adults, Body Mass Index (BMI) was positively **correlated** with **liver, kidney, and pancreas volumes**; a 5-unit BMI increase corresponded to 12%, 9%, and 7% increases, respectively. Kidney analyses showed that ~61% of growth was due to hyperplasia. Organ volume was strongly associated with cancer risk, suggesting increased cell number as a contributing mechanism linking obesity to cancer. [MedicalXpress](#), (27.03.2026). Original Publication: [AACR](#).

★ **Ultra-Processed Foods and accelerated aging in adults**

Ultra-processed food (UPF) intake is rising globally, harming nutrition and adult health. Evidence (2015–2025) links **high UPF intake** to micronutrient deficiencies, inflammation, oxidative stress, **faster biological aging**, and functional decline (e.g., sarcopenia, weaker grip). Fortification helps little. Stronger policies and research are needed to reduce UPFs and support healthy aging. [FrontNutr](#), (31.03.2026).

★ **Ultra-Processed food intake and risk of benign prostatic hyperplasia**

This cohort study (men ≥50) found higher ultra-processed food (**UPF**) intake is linked to increased risk of **benign prostatic hyperplasia** (BPH), with a dose-response effect. UPFs may promote inflammation, metabolic issues, and nutrient deficits affecting prostate health. Reducing UPF intake could help lower BPH risk. [MedicalXpress](#), (31.03.2026). Original Publication: [Nutr. J.](#)

★ **Western-style supper choices and memory performance**

This research examines how specific meals affect **memory**, rather than overall diet. Two studies (ages 20–90) combined subjective and objective measures. Results show that unhealthy supper choices—especially **cheese, milk products, sweets, and animal-based foods**—are linked to poorer memory, particularly in younger adults. Effects were independent of overall diet, highlighting the importance of meal timing and composition. [FrontNutr](#), (01.04.2026).

ALLERGY

★ **Allergenic risk of edible cricket proteins**

This study investigated the potential for allergic cross-reactivity between **edible crickets** and **house dust mites** in **Thai children and adolescents** with diagnosed dust mite allergies. The researchers found that thermal processing affected protein solubility and identified **tropomyosin** and **actin** as potential cross-reactive allergens, suggesting a heightened risk of allergic reactions in this population when consuming edible crickets. [J Agric Food Chem](#), 14 pages. (16.03.2026).

★ **Milk allergen failures in dairy-alternative lattes**

Allergen and chemical analysis in **Scotland** showed issues mainly with milk: **85%** of 68 milk-alternative lattes contained **milk protein** levels that could trigger allergies. Authorities now support better labelling and awareness. Only 14% of 70 egg-free meals contained egg protein. Meat products were compliant. Some bread had excess preservative (no health risk). Isolated contamination cases occurred. Future testing targets pathogens, allergens, and contaminants in various foods. [FSN](#), (23.03.2026). Original Publication: [FSS](#).

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★★★★ very important info ★★ important info ★ interesting info

MICROBIOLOGY

★★★★ *Listeria monocytogenes* in hydroponic controlled environment agriculture (CEA)

This study examined *Listeria monocytogenes* in a hydroponic controlled environment agriculture (CEA) pak choi facility using the nutrient film technique. Over eight months and 156 samples, contamination was only present in the first round, on boot covers and in the drainage solution, indicating a potential risk to the crop. Following enhanced sanitation, no further detections occurred. Tests with *L. innocua* confirmed that floors and recirculated solutions **can spread pathogens**, emphasising the need for strict hygiene and monitoring [FoodSafetyMag](#), 2 pages. (26.02.2026). Original Publication: [FoodContr](#).

★★★ Food Standards Agency (FSA) issues warning on safe handling of contaminated raw pet food

Raw pet food, which is made from uncooked meat, offal and bone, is often poorly labelled. As it isn't heat-treated, harmful bacteria can survive, increasing the risk of infection, cross-contamination and antimicrobial resistance (AMR). A UK survey found that 35% of products contained *Salmonella*, *Campylobacter* or *E. coli*, and 29% failed UK safety standards. This poses a public health risk, particularly to vulnerable groups. [NewFoodMag](#), (11.02.2026). Original Publication: [FSA](#). Additional Information: [Food Safety News](#), [see also Signal Report](#).

★★★ Microbiological contamination in plant-based RTE products

A **BfR** study assessed microbiological contamination in 104 plant-based **RTE milk, cream, cheese, meat and fish substitutes** from Berlin retail. No *Listeria monocytogenes*, *Salmonella* spp. or *Clostridium perfringens* were detected; *coagulase-positive staphylococci* appeared once at low level. Elevated *E. coli* occurred in two cashew soft cheeses. *Listeria innocua* and frequent *Bacillus cereus* with enterotoxin genes indicate hygiene concerns. [BfR](#), 4 pages. (02.2026).

★★★ Domestic refrigerators as underestimated microbial ecosystems

Refrigerators harbour diverse microbial communities, including pathogens. Of the 45 household units studied, only 38% stayed below 5 °C, while **24% exceeded 7 °C**. The frequency of cleaning strongly influenced microbial load and diversity. Pathogens such as *Staphylococcus aureus* and *Bacillus cereus* were present in 60% of samples, while

Listeria monocytogenes and *Yersinia intermedia* were found sporadically. Older appliances exhibited greater antimicrobial resistance, underscoring the importance of hygiene and temperature control for food safety. [Analytik News](#), 3 pages. (26.02.2026). Original Publication: [LWT](#). Additional Information: [see also Signal Report](#).

★★★ Nanoplastics linked to Salmonella risk in food safety study

A University of Illinois study found that **polystyrene nanoplastics** (PS-NPs) affect *Salmonella enterica* in a concentration- and time-dependent manner. Higher PS-NP levels damaged membranes increased oxidative stress, and triggered stress, virulence, and biofilm genes. Moderate exposure boosted **biofilm formation**, while high or prolonged exposure reduced efflux and resistance genes. Results show **PS-NPs can reshape bacterial virulence and resistance**, posing risks to food safety and public health. [MirageNews](#), 2 pages. (27.02.2026). Original Publication: [J. Hazard. Mater.](#)

★★★ Occurrence of Listeria monocytogenes in the Swiss food supply (2015–2024)

This study reviews *Listeria monocytogenes* (Lm) occurrence in the **Swiss food supply** from 2015-2024, noting an average of 53 listeriosis cases annually, with higher incidences in the elderly and infants. Lm was most frequently found in meat products, ready-to-eat foods, and fish. The research identified 25 recalls and 36 public warnings due to Lm and highlighted that non-ready-to-eat foods can pose a risk through cross-contamination. [JCF](#), 11 pages. (05.03.2026).

★ E. coli survival in French pizza outbreak

Scientists have published a report on the largest documented outbreak of **Shiga toxin-producing E. coli (STEC)** in **France** but have been unable to explain how the pathogen survived in cooked pizzas. The case-control study confirmed a strong association between pizza and disease. Traceback work identified a single production line in France dedicated to these pizzas with use of leavened, but not pre-baked, dough. Samples of an unopened pizza from a family's home and dough from the manufacturer tested positive for both outbreak strains. Flour used to make incriminated pizzas was also positive for the **STEC O26:H11** outbreak strain. [FSN](#), 3 pages. (02.03.2026). Original Publication: [Eurosurveillance](#).

★ Foodborne virus contamination in commercially available fresh fruits and vegetables

This study analyzed 365 samples of fresh fruit, vegetables, and ready-to-eat products collected in Shijiazhuang, **China**, between 2024 and 2025 to assess contamination with major foodborne viruses. Overall, 93 samples (25.48%) were positive for at least one virus. **Norovirus** was the predominant contaminant, with norovirus GI and GII detected in 11.78% and 9.04% samples, respectively, while **hepatitis A virus** and **classic human astrovirus** were each found in 0.27% of samples. Paslahepevirus balayani (**hepatitis E virus**) and **sapovirus** were detected in 4.93% and 2.19% samples, respectively. The highest contamination rates occurred in **coriander, cherry tomatoes, and blueberries**, and contamination was significantly more frequent in samples collected during summer. [FoodEnvironVirol](#), 10 pages. (06.03.2026).

★ Epidemiology of Kudoa septempunctata food poisoning in Japan from 2013 to 2023

This retrospective study analyzed *Kudoa septempunctata* food poisoning in Japan (2013–2023). A total of 2009 cases were reported, peaking in 2014 (429 cases) and falling below 100 during the COVID-19 pandemic. Most incidents occurred in October, with **99% linked to raw flounder dishes** such as sashimi and sushi. Findings highlight ongoing food safety risks from *K. septempunctata* in East Asia. [Sci Rep](#), 7 pages. (09.02.2026).

★ Stimulation of human adenovirus infection modulated by emerging micropollutants

Contaminants of emerging concern (CECs), including pharmaceuticals and microplastics, are increasingly present in aquatic systems, yet their **effects on viral pathogens** are poorly understood. Here, antibiotics, antidepressants, microfibers, and nanoplastics were tested for their impact on human adenovirus type 5 (HAdV-5) replication. Co-incubation of CECs with viral particles at 37 °C enhanced replication up to 1.5 log₁₀, indicating temperature-dependent physicochemical interactions. These results, together with evidence that microplastics protect viruses and shape viral ecology, suggest that polluted environments may actively **modulate viral infectivity** and should be integrated into future risk assessments. [FoodEnvironVirol](#), 12 pages. (22.01.2026).

CHEMISTRY

★★★ Toxin-Producing microalga confirmed on Spain's mediterranean coast

A tropical microalga, *Gambierdiscus australes*, known for producing **toxins** that cause **ciguatera poisoning** in **fish and humans**, has been detected for the first time on **Spain's Mediterranean mainland coast**. This discovery, made through routine seawater sampling, indicates a recent expansion of the species into this region, likely driven by warm-

ing waters. The presence of this benthic organism, which attaches to seafloor surfaces and plants, poses a **new challenge** for **seafood safety** monitoring, requiring enhanced surveillance to track potential toxin accumulation in fish and prevent outbreaks of the illness. [earth.com](#), 3 pages. (14.02.2026). Original Publication: [Harmful Algae](#).

★★★ **Mycotoxin contamination in UK plant-based meat and dairy alternatives**

This study analyzed the natural occurrence and co-occurrence of 19 **mycotoxins** in 212 **UK plant-based products**, including 92 plant-based meat alternatives and 120 beverages. Emerging ***Fusarium* and *Alternaria* toxins were highly prevalent**, especially in meat alternatives. Co-occurrence was frequent, underscoring the need for stronger mycotoxin management in plant-based foods. [Affidia](#), 1 page. (23.02.2026). Original Publication: [FoodContr](#).

★ **Arsenic in Greenland cold-water prawn**

Laboratory tests have revealed high arsenic levels in imported shrimp from Greenland, exceeding the allowable limit. Tests showed that arsenic levels in a sample of **frozen-cooked northern prawn (*Pandalus borealis*)** reached **20 mg/kg**, which is **four times higher** than the **maximum permissible limit**. The sample was taken from a shipment weighing **18 tons**. [FIS](#), 1 page. (05.02.2026).

★ **Acrylamide in products made from fried vegetables**

A member of the BfR Commission on Contaminants in the Food Chain reports findings of **high levels of acrylamide** in products made from **fried vegetables** (e.g. beetroot, sweet potato). The manufacturing processes appear to be less well optimised in terms of low acrylamide formation than processes for manufacturing products made from fried potatoes. [BfR](#), 1 page. (11.02.2026). Original Publication: [CVUA Stuttgart](#).

★ **Babies are exposed to more “forever chemicals” before birth than previously known**

Researchers from the US analysed umbilical cord blood (2003–2006) from 120 babies and, using a non-targeted method, identified 42 **PFAS** chemicals—many not covered by standard tests. Infants were exposed to a wide range of **PFAS before birth**. A new PFAS-omics score summarised total exposure. Broader testing showed no exposure differences by birth order, highlighting that measurement methods strongly influence findings [EurekAlert](#), (18.02.2026). Original Publication: [Environ. Sci. Technol.](#)

★ **Microplastics discovered in prostate tumors**

A new study found **microplastic fragments** in nine out of ten **prostate cancer patients** in the **US**, with higher concentrations in tumors than in adjacent healthy tissue. Plastic particles were present in 90% of cancerous and 70% of benign samples, averaging 40 µg/g in tumors versus 16 µg/g in healthy tissue. Larger studies are needed to confirm these findings and assess their clinical significance. [EurekAlert](#), 2 pages. (23.02.2026).

★ **Global trend in toxic element concentration in vegetables**

A **systematic review** analyzed global studies on toxic element contamination in vegetables, identifying **mercury, cadmium, chromium, and arsenic** as the most frequent culprits. The research found that **leafy vegetables**, particularly in **South Asia**, were most affected by cadmium, lead, and chromium, often exceeding permissible levels and posing health risks, especially to children, due to high estimated daily intake and hazard quotients. [Environ Monit Assess](#), 10 pages. (24.02.2026).

★ **Paper packaging: MOSH and MOAH**

A **Chinese study** found that mineral oil saturated hydrocarbons (**MOSH**) and mineral oil aromatic hydrocarbons (**MOAH**) can migrate from paper and cardboard food packaging into fatty foods. This migration is more significant in printed boxes without barrier layers, and the study suggests that **online retailers** may offer packaging with higher contamination levels due to variations in quality control. While MOAH has established health risks and regulatory limits, MOSH, which can accumulate in the liver, currently lacks specific limits, raising concerns as paper packaging becomes a more common alternative to plastics. [ILS](#), 3 pages. (04.03.2026). Original Publication: [J. Food Compos. Anal.](#)

★ **Statement on the risk for T-2 and HT-2 mycotoxins in food**

A UK risk assessment of **T-2 and HT-2 mycotoxins** found that overall exposure from grains is low, but processed oats and ready-to-eat products like porridge and infant cereals may pose **risks for infants and toddlers**. Oats showed the highest toxin levels. Triggered by new EU limits, this reassessment contrasts earlier findings of no risk. [COT](#), 20 pages. (05.03.2026).

★ **Heating food in plastic packaging may significantly increase the release of microplastics into food**

Studies indicate that microwaving plastic food containers substantially increases **micro- and nanoplastic release**. Polypropylene and polystyrene containers emitted approximately 100,000–260,000 particles after cold storage, while microwave heating for 5 minutes released 326,000–534,000 particles—four to seven times **more than conventional**

oven heating. Elevated power levels, prolonged exposure, and surface degradation further amplified particle emission. [FoodSafetyMag](#), (09.03.2026). Original Publication: [G](#).

★ **Plasticizer and Bisphenols contamination in Algerian honeys**

Phthalates, non-phthalate plasticizers, and bisphenols were analyzed in **honeys** from coastal and non-coastal regions of Algeria. All samples contained plastic-related contaminants. Phthalates were higher in coastal honeys, while non-phthalate plasticizers were more common inland. DBP and DEHP—classified in the EU as substances of very high concern—were the most frequent. BPA was also detected in all samples. Although most exposure levels were within safety limits, BPA raised toxicological concerns. [Foods](#), (09.03.2026).

NUTRITION

★★ **Study finds vegetarians over 80 less likely to reach 100**

Avoiding meat may **slightly reduce the likelihood of reaching 100**, but only for frail and underweight seniors. As we grow older, it is more important to stay strong and **maintain muscle than to prevent long-term disease**. Older adults who consumed fish, eggs or dairy products were just as likely to become centenarians as meat eaters, suggesting that certain nutrients could be the deciding factor. The conclusion is that nutritional needs change dramatically with age. [ScienceDaily](#), 2 pages. (26.02.2026). Original Publication: [AJCN](#). Additional Information: [The Conversation](#).

★ **Less sugar as a baby, fewer heart attacks as an adult**

People whose **sugar intake** was restricted before birth and in early childhood had markedly lower rates of heart disease later in life. Compared to those never exposed to rationing, their risks of heart attack, stroke, heart failure, and cardiovascular death were cut by roughly 20–30%. [ScienceDaily](#), 2 pages. (23.02.2026). Original Publication: [BMJ](#).

ALLERGY

★★ **Cultured beef shows mixed allergy risks in early food safety study**

A preliminary food safety study on **cultured beef cells** revealed **mixed allergy risks**, showing fewer traditional protein allergens than steak but eliciting stronger immune reactions in individuals with an acquired meat allergy, particularly concerning **alpha-gal**. Researchers found that while most allergenic proteins were at similar or lower levels in cultured cells compared to steak, certain proteins not typically classified as meat allergens reacted with IgE, and cultured cells showed increased reactivity to alpha-gal in sensitive individuals, highlighting the need for specific allergy assessments for cultivated meat. [NewsMedLifeSc](#), 1 page. (18.02.2026). Original Publication: [J Agric Food Chem](#).

FRAUD / DECEPTION

★ **Global seafood supply chains plagued by deception**

A new **Food and Agriculture (FAO) report** reveals that about **20%** of the \$195 billion global seafood trade may involve **fraud** – a higher rate than in meat or produce sectors. Deception includes species **substitution**, **chemical treatment** and **counterfeit** products. Driven by profit, fraud also hides **illegal fishing**. FAO urges stricter labelling, mandatory scientific names and stronger traceability to protect consumers, biodiversity and the blue economy [Affidia](#), (18.02.2026). Original Publication: [FAO](#).

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☆☆☆ very important info ☆☆☆ important info ☆ interesting info

MICROBIOLOGY

☆☆☆ Root cause of two listeriosis outbreaks at a cold-smoked salmon producer

By two outbreaks traced to a Norwegian producer, the **skinning machine** was the outbreak source; *Listeria* was found on conveyors and a roller and persisted for 8 months despite intensive cleaning, disinfection, and heat treatment. After **replacing the machine** and enhancing sanitation, no salmon samples were tested positive. **Despite extensive cleaning** and disinfection, disassembly, **hydrogen-peroxide** whole room treatment, and **heat exposure** of the skinning machine, excluding the conveyors and roller, up to 80°C for 66 hours, contamination recurred. This illustrates the challenges involved in cleaning food processing machinery. [FSN](#), (21.01.2026). Original Publication: [IntJFoodMicrobiol](#).

☆☆☆ *Streptococcus agalactiae* ST283 invasive infections in Portugal

Invasive *Streptococcus agalactiae* (group B streptococci, GBS) disease in adults is increasingly recognized globally. A recent study reports two invasive GBS cases in **Portugal** (2016–2018) caused by the rare **ST283 lineage**, a **hypervirulent** clone from Southeast Asia linked to **foodborne outbreaks** in healthy adults. Limited genetic testing suggests ST283 infections may sporadically occur outside Asia but remain undetected [FrontMicr](#), 7 pages. (26.01.2026).

☆☆☆ *Clostridium botulinum* in infant formula in the US

This is the first known **botulism outbreak** tied to infant formula anywhere in the world since infant botulism was first described as a distinct clinical entity almost 50 years ago. Food safety investigators report that they have found the source of **botulism** that contaminated **infant formulas** in the **USA** and sickened more than 50 babies across the country. In statements, both the Food and Drug Administration and the Centers for Disease Control and Prevention reported that the outbreak strain of the *Clostridium botulinum* toxin had been found **in an ingredient**. Whole genome sequencing by government laboratories confirmed the presence of *Clostridium botulinum* toxin in infant formula in late November. [FSN](#), 2 pages. (26.01.2026). Original Publication: [FDA](#).

☆☆ Hypervirulent *Klebsiella pneumoniae* in pre-cooked chicken

This study investigated the prevalence of **multidrug-resistant hypervirulent *Klebsiella pneumoniae*** (MDR-hvKp) in pre-cooked chicken products in **Beijing**, finding that 22.2% of isolated *K. pneumoniae* strains were MDR, with four identified as **hvKp strains**. These strains possessed key virulence genes, strong biofilm-forming capabilities, and, in two cases, carbapenem resistance genes. Genomic analysis revealed the presence of transmissible resistance-virulence plasmids with a potential “food-to-human” transmission pathway, highlighting **pre-prepared chicken** products as a significant reservoir for MDR-hvKp. [IntJFoodMicrobiol](#), 10 pages. (07.01.2026).

★ Microbiological stability and safety of dealcoholized wines

A recent study from Spain assessed microbiological risks in **dealcoholized wines** during six months of storage. Eight wines were analyzed (red/white, dealcoholized, alcoholic, and stabilized). Lack of ethanol allowed **microbial growth** despite SO₂. Red non-alcoholic wines showed higher diversity. Stabilized wines were safest, but late growth occurred in white non-alcoholic wines, revealing stabilization limits. Results indicate **contamination** during dealcoholizing and persistence of **spoilage and potential pathogens**, highlighting the need for strict hygiene, HACCP systems, defined shelf life, and improved preservation strategies. [Food Biosci.](#), 44 pages. (14.01.2026).

★ Persistence and circulation of *Salmonella* Infantis on broiler farms

For years, *Salmonella* **Infantis** dominated Belgian broiler farms. Five farms (14 flocks) with prior contamination were monitored over two production rounds. Sampling showed that cleaning and **disinfection did not eliminate** *S. Infantis*, with frequent contamination of floors, equipment and surroundings. Twelve of 28 flocks became positive within one week, indicating rapid spread and highlighting major biosecurity challenges. [Foods](#), (17.01.2026).

★ *Escherichia coli* as an indicator of antimicrobial resistance in retail seafood

A recent study examined antimicrobial resistance (**AMR**) in retail seafood in **Italy**, using *Escherichia coli* as an indicator organism. *E. coli* was found in 13% of 422 samples, mainly in **bivalves** and **crustaceans** that readily accumulate faecal contaminants. Cefotaxime-resistant *E. coli* carried **ESBL or AmpC genes**—especially *bla*_{CTX-M-15}—often plasmid-linked, suggesting potential spread. Findings support *E. coli* as a **useful AMR indicator** and call for stronger AMR surveillance in seafood. [IntJFoodMicrobiol.](#), 10 pages. (22.01.2026).

★ First Case of Bird Flu H5N1 in European Dairy Cow Reported

Wageningen Bioveterinary Research detected antibodies to HPAI H5N1 in a **Dutch dairy cow**, showing a past infection. PCR confirmed the cow was no longer carrying or shedding the virus. Testing followed a positive **H5N1** case in a farm cat. NVWA found the cow had mastitis and reduced milk yield in mid-December but has since fully recovered. [FoodSafetyMag.](#), (02.02.2026).

★ CDC study highlights growing threat of invasive *E coli*

A recent CDC (Centers for Disease Control and Prevention) study reveals that invasive *E. coli* infections are a **growing** and increasingly difficult-to-treat public health concern in the United States, with high rates of **antibiotic resistance** observed, particularly in **older adults and women**. The study found a significant annual incidence rate of these infections, which are a leading cause of sepsis and often linked to **urinary tract infections**, and highlighted concerning resistance to common antibiotics, posing challenges for effective treatment and prevention strategies. [CIDRAP](#), 3 pages. (06.02.2026). Original Publication: [JAMA Netw Open](#).

★ Seafood from Bangladesh may contribute to global spread of AMR

A study analyzing seafood from **Bangladesh** has revealed the presence of multidrug-resistant *E. coli* strains that share genetic similarities with those found in other countries, indicating that the **international seafood trade** may be a significant pathway for the global spread of **antimicrobial resistance** (AMR). These contaminated seafood products can act as reservoirs for bacteria carrying resistance genes, which can be easily transferred, posing a broad public health risk given Bangladesh's status as a **major seafood exporter**. [AMR Insights](#), 1 page. (09.02.2026). Original Publication: [FrontMicr.](#) Additional Information: [Genomic analysis of antibiotic-resistant *E. coli* from seafood in Bangladesh.](#)

★ Outbreak of Shiga toxin-producing *E. coli* O26:H11 associated with dried fruit

In November 2023, a UK outbreak of Shiga toxin-producing *E. coli* **O26:H11 (stx2a/eae)** caused 40 cases—mostly young children—with 19 developing HUS. Whole-genome sequencing showed a **multidrug-resistant strain** likely imported from abroad. Epidemiology linked illness to a **dried fruit product**, though testing was limited by missing batch data. [Epidemiol. Infect.](#), 8 pages. (08.01.2026).

CHEMISTRY

★★ Scientists question the safety of BPA-free packaging

“BPA-free” food packaging may be hiding new risks. A McGill University study (Canada) found that several **BPA** substitutes used in grocery price labels can seep into food and interfere with vital processes in human ovarian cells. Some triggered unusual **fat buildup** and **disrupted genes** linked to cell repair and growth. The results raise concerns that BPA replacements may be just as troubling as the chemical they replaced. [ScienceDaily](#), (15.01.2026). Original Publication: [Tox. Sci.](#)

★ Toxic trace elements in animal- and plant-based protein sources

Plant-based meat and dairy **alternatives** (PBMA, PBDA) are increasingly consumed in the EU but may accumulate **toxic trace elements**. Using substitution modelling, a recent study simulated **dietary shifts** from animal to plant-based foods and assessed exposure using EU occurrence data. Replacing meat and milk with PBMA/PBDA **increased exposure to Cd, Al, Ni, iAs, and Cr**. [FoodContr](#), 10 pages. (05.2026).

★ Caffeine content in sports and food supplements

Lachenmeier et al. analyzed **caffeine** in 23 **German** food and sports **supplements** (2010–2025) against EFSA limits. Many exceeded single-dose (200 mg) and daily (400 mg) thresholds, with intakes up to 1000 mg/day. Review of EU RASFF alerts identified 19 excessive-caffeine cases, seven serious. The authors highlight **regulatory inconsistency** and call for clearer limits and labeling. [CV](#), 1 page. (20.01.2026). Original Publication: [ChemFoodChem](#).

★ PFAS exposure rises with global seafood trade

A study published in **Science** suggests that the global fish trade may **increase the risk of per- and polyfluoroalkyl (PFAS)** exposure worldwide—bringing seafood laden with “forever chemicals” to regions with low levels of environmental pollution. There is a mounting body of evidence pointing to the health harms of dietary exposure to PFAS. [FoodSafetyMag](#), (21.01.2026). Original Publication: [Sci](#).

★ Inorganic arsenic in rice-based beverages

Arsenic occurs in foods as toxic **inorganic (iAs)** and less toxic organic forms. **Rice** is a major iAs source. A recent study measured iAs and organic arsenic in 25 rice-based beverages from **Italy** using a validated, sensitive method. iAs predominated, profiles were homogeneous, and all samples met EU limits. Exposure estimates indicated minimal population impact but a **small margin of exposure** for regular early-childhood consumers, supporting ongoing monitoring. [Foods](#), (21.01.2026).

★ Antimony – an overlooked chemical of concern in food packaging

A recent **review** highlights **antimony**, a metalloid used in **PET plastic production**, as a significant concern in food packaging due to its migration into food, particularly acidic or heated items. Studies show antimony is a **probable human carcinogen** and is linked to cardiometabolic health issues like obesity and diabetes. The review recommends establishing a human exposure limit, reducing plastic use, and replacing antimony in PET, while also calling for further research into its health effects. [FoodPackForum](#), 1 page. (27.01.2026). Original Publication: [J. Endocr. Soc.](#)

★ Trail mix test: Mineral oil and (PFAS) pesticides

A recent test of 29 trail mix products in Germany revealed concerning levels of **mineral oil** components, **pesticide residues** (including **PFAS**), and high sugar content in some samples. While six products received top ratings, many others were criticized for these contaminants and potential health risks. The study also noted high levels of **enterobacteria** in one product and highlighted that even naturally occurring **sugars** in dried fruit can contribute to excessive sugar intake. [Öko](#), 6 pages. (29.01.2026).

★ Risks related to the presence of plant lectins in undercooked beans

The European Commission asked EFSA to assess risks from **plant lectins in food**. EFSA evaluated only **phytohaemagglutinin (PHA)** from beans. A benchmark dose (BMDL10) of **22.9 mg/kg bw/day** was identified, but no health-based guidance value was set due to uncertainties. Using a margin of exposure approach, EFSA found **undercooked beans could pose health concerns**, while properly processed foods would not. [EFSA](#), 175 pages. (29.01.2026).

★ EFSA sets safety thresholds for cereulide toxin in infant formula

The European Food Safety Authority (EFSA) set an acute reference dose (ARfD) for cereulide in infants after a global recall of contaminated infant formula. The toxin, produced by **Bacillus cereus**, can cause rapid vomiting and stomach pain. EFSA concluded that cereulide levels above 0.054 µg/L in infant formula and 0.1 µg/L in follow-on formula may exceed safe limits. EFSA set an ARfD of 0.014 micrograms per kilogram of bodyweight (µg/kg BW) for cereulide in infants based on the critical acute adverse effect of vomiting. [FoodSafetyMag](#), (02.02.2026). Original Publication: [EFSA](#).

★ Microbe-mediated interactions of nanoplastics and flame retardants drive multiscale toxicity

Agricultural **irrigation water** can co-transport **nanoplastics** and **organophosphate flame retardants**, posing crop risks. A recent study demonstrates that **combined pollutant exposure** via agricultural water poses a greater threat to crop productivity and food safety than individual contaminants. [WaterRes](#), 10 pages. (01.04.2026).

★ CFC replacement products are raining tons of TFA down on the Earth

Researchers led by Lancaster University (UK) estimate that chemicals **replacing chlorofluorocarbon (CFCs)**, plus some anesthetic gases, deposited about 335,500 tons of **trifluoroacetic acid (TFA)** worldwide between 2000–2022. Because these long-lived gases persist for decades, TFA pollution is expected to keep **rising**, with impacts detected

even in the Arctic and growing concern over environmental and health risks. [ScienceDaily](#), (06.02.2026). Original Publication: [AGU](#).

★ Underestimated dietary exposure to p-phenylenediamine-derived quinones

This multi-country study reveals widespread contamination of PPD-Qs and PPDs in **chicken eggs**, identifying an underrecognized dietary exposure route to **rubber-derived chemicals**. PPD-Qs occurred at higher levels than parent compounds in both yolk and white, with consistent trends across brands, suggesting farming-related sources. Regional differences in estimated dietary intake highlight eggs as a significant exposure pathway alongside inhalation and dermal contact. [J. Hazard. Mater.](#), (15.02.2026).

NUTRITION

★ Diabetes costs the global economy trillions

Diabetes mellitus is a chronic metabolic disorder and a leading non-communicable disease worldwide, affecting **~10% of adults**. Prevalence continues to rise, straining health systems and economies. A recent study quantifies global and national costs, which rival or exceed those of cancer or dementia, and identifies **prevention via healthy diet and regular physical activity** as the most effective cost-reduction strategy. [EurekAlert](#), (09.01.2026). Original Publication: [Nat. Med.](#).

★ Will climate change affect nutrient, micronutrient and bioactive bioavailability?

Climate change is expected to reshape global food systems by **altering food availability, composition, and processing**, with consequences for **nutrition**. Changes in food matrices can affect digestion, absorption, and metabolism, modifying the bioavailability of nutrients and bioactive compounds. This review examines direct and indirect **climate-related effects** on the bioavailability of proteins, fat-soluble micronutrients, minerals, phenolics, and glucosinolates. [CritRevFoodSciNutr](#), 24 pages. (01.02.2026).

★ US dietary guidelines symptomatic of a structural failure

The **Dietary Guidelines for Americans (DGA)** reflect scientific principles interwoven with industry and political interests. This creates internal contradictions and confusing signals for consumers and those responsible for implementation. [FoodNavigator](#), (04.02.2026).

FRAUD / DECEPTION

★ FSA's NFCU warns food businesses for vigilance against fraud after £500k poultry theft jailing

The Food Standards Agency (FSA) has urged food businesses to be vigilant against **food fraud** after an National Food Crime Unit (NFCU) investigation led to the jailing of a suspect linked to over £500,000 of **stolen poultry**. The person was sentenced at Bolton Crown Court to two years and six months for handling stolen goods in a wider chicken and turkey fraud. [NewFoodMag](#), (28.01.2026).

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EARLY DETECTION FOR FOOD SAFETY – HIGHLIGHTS

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★★★ very important info ★★ important info ★ interesting info

MICROBIOLOGY

★★★ Molecular detection of *E. bienersi*, *C. burnetii* and *D. fragilis* in raw milk cheese

A recent molecular study from Türkiye revealed the presence of *Dientamoeba fragilis*, *Enterocytozoon bienersi*, and *Coxiella burnetii* in raw milk and cheese, marking the first detection of *D. fragilis* in dairy products. PCR analysis of 150 milk and cheese samples from cattle, sheep, goats, farms, markets and delicatessens detected *E. bienersi* (2.0%), *C. burnetii* (8.6%) and *D. fragilis* (6.0%). Cattle milk cheese showed higher prevalences. Zoonotic *E. bienersi* BEB6 and *D. fragilis* genotype 1 were identified, indicating potential public health risks from raw milk and cheese. [Bio-engineer](#), 3 pages. (16.12.2025). Original Publication: [Acta Parasitol.](#)

★★★ Opportunistic *Vibrio alginolyticus*: Public health implications as emerging human pathogens

Vibrio spp. were detected in 23.9% of ready-to-eat seafood samples in South Korea, with clear species-specific differences in distribution and detection efficacy. *V. alginolyticus* showed the widest prevalence across multiple seafood categories, comparable to the major human pathogen *V. parahaemolyticus*. Most *V. alginolyticus* isolates carried conserved virulence genes associated with early stages of host infection, including adherence, biofilm formation and motility, and formed distinct phylogenetic clusters. These results demonstrate that opportunistic *Vibrio* species, particularly *V. alginolyticus*, are common in ready-to-eat seafood and possess pathogenic traits relevant to human infection. [Food Res. Int.](#), (28.02.2026).

★★★ Outbreak of *Escherichia coli* O157:H7 infections linked to organic walnuts

Shiga toxin–producing *Escherichia coli* O157 outbreaks are typically linked to beef and leafy greens, with rare association to tree nuts. In 2024, organic walnuts were identified as the source of a multistate STEC O157 outbreak in the United States, representing the first documented walnut-linked outbreak and highlighting walnuts as a potential vehicle in future investigations. [MMWR](#), 1 page. (27.11.2025).

★ Cross-border transmission of *Salmonella* in Europe

A multinational study combining whole genome sequencing data with machine learning methods found that cross-border transmission plays an important role in the spread of *Salmonella* in Europe. Only about one third of human salmonellosis cases (33.1 percent) were linked to domestic sources. Poland emerged as a frequent source country,

accounting for 32.2 percent of cases attributed to other countries. Around 20 percent of *Salmonella* Typhimurium human isolates in England and Wales, Portugal, and Denmark were traced back to Poland. [FoodSafetyMag](#), 3 pages. (12.12.2025). Original Publication: [J. Infect.](#)

★ **Steady increase in reported EHEC cases in Switzerland**

According to data from the Federal Office of Public Health (FOPH) infectious diseases dashboard, the reported incidence of **EHEC (Enterohaemorrhagic *E. coli*)** infections in Switzerland increased steadily from 1.02 to 15.23 cases per 100'000 people between 2013 and 2025. [FOPH](#), (22.12.2025).

CHEMISTRY

★★ **High mycotoxin occurrence in plant-based foods from the UK market**

An analysis of 212 **plant-based meat alternatives (PBMA)s** and **plant-based beverages (PBB)s** from the UK market revealed that all samples contained **at least one mycotoxin, with multiple mycotoxins often present simultaneously**. Legume-based and mixed cereal–legume PBMA)s were the most affected, with frequent detection of aflatoxins and *Fusarium* toxins. Among PBB)s, oat-based beverages showed consistently high levels of type A trichothecenes and fumonisin B, while a high prevalence of ochratoxin (90%) was observed in soy-based beverages. Although quantified occurrence values were below regulatory levels, the high prevalence of mycotoxin mixtures indicates that **cumulative exposure may pose health concerns**. [FoodContr](#), 55 pages. (08.12.2025).

★★ **Bisphenol TMC exhibits greater estrogenic activity than Bisphenol A**

Bisphenol A (BPA) analogues are widely used plastics chemicals, but many are poorly characterised. A recent study assessed four understudied analogues versus BPA. Only BP TMC (Bisphenol TMC; IUPAC name: 4-[1-(4-hydroxyphenyl)-3,3,5-trimethylcyclohexyl]phenol) showed strong estrogenic activity, acting as a more potent estrogen receptor alpha (ER α) agonist than BPA. BPTMC activated ER α target genes, inhibited 17 β -HSD2 (17 β -hydroxysteroid dehydrogenase type 2), and stimulated proliferation of ER α -positive MCF-7 cells. These effects were estradiol-like and reversible by fulvestrant, highlighting potential endocrine and breast cancer risks. [Toxicol.](#), (31.12.2025).

★★ **6-PPD, 6-PPDQ, and related rubber-associated chemicals in fruits and vegetables**

This study from **Switzerland** shows that tire-related additives can be detected in **fruits** and **vegetables**, but only at very low levels. **DPG** (diphenylguanidine) was the most frequently found compound, **BTH** (benzothiazole) occurred mainly in fruits, and **6-PPDQ** (quinone transformation product) was detected primarily in leafy vegetables. Estimated dietary intakes for all foods were well below health-based thresholds, indicating negligible risk from food consumption. [J. Hazard. Mater.](#), 9 pages. (01.01.2026).

★★ **Food additive mixtures in French children and adults**

This first nationally representative assessment of **food additive exposure** in French children and adults provides the evidence that food additives are consumed as **mixtures** and, together with emerging data on synergistic interactions, it underscores the importance of considering **combined exposures** in future safety evaluations. [FoodSafetyMag](#), 2 pages. (06.01.2026). Original Publication: [Sci Rep](#).

★ **FAO and WHO warn about chemicals in farm water**

The Food and Agriculture Organization (FAO) and the World Health Organization (WHO) have issued a warning about the **increasing risk of chemical contamination in food** due to the use of **alternative water sources in farming**, which may contain harmful substances like **arsenic**, **lead**, and **PFAS**. As traditional water sources become scarce, farmers are turning to recycled water and groundwater, leading to potential health risks for consumers. The organizations are urging governments to improve monitoring, regulations, and farmer education to ensure safer water usage in agriculture through a collaborative "One Health" approach. [DA](#), 1 page. (26.06.2025). Original Publication: [FAO](#). Additional Information: [FAO/WHO Prioritizing food safety issues related to chemical water quality in agrifood systems \(05.12.2025\)](#).

★ **Aspartame may promote the progression of ovarian cancer**

A study using a multi-omics framework combining Mendelian randomization, network toxicology, and in vitro experiments investigated a potential link between **aspartame consumption and ovarian cancer**. Genetically predicted aspartame intake was associated with an **increased risk of ovarian cancer**. In vitro experiments showed that aspartame promotes **malignant phenotypes** in ovarian cancer cells and may contribute to ovarian cancer development by increasing the **expression of cancer-related genes**. [Food Chem. Toxicol.](#), (12.12.2025).

★ Exposure to mixed metals/metalloids in early childhood in children from Sevilla

A study by the University of Seville (Spain) found that **exposure to a mixture of metals**, including lead, aluminum, and arsenic, in infants from both urban and rural environments is linked to developmental delays. Researchers analyzed hair samples from 100 children, revealing that most contained multiple metals, with **neurotoxic metals** peaking at six months of age and negatively impacting **cognitive, motor, language, social, and adaptive development**. [UdS](#), 2 pages. (18.12.2025). Original Publication: [Environ. Pollut.](#)

★ TFA in everyday cereal products across Europe

A new Pesticide Action Network Europe (PAN) study reveals high levels of the “forever chemical” **trifluoroacetic acid (TFA)**, recently found to cause harm to reproduction and development, in everyday **cereal products across Europe**. The most contaminated food is a typical breakfast cereal. Average concentrations are 107 times higher than those in tap water. [PAN](#), 2 pages. (04.12.2025). Original Publication: [PAN](#).

★ Microplastic contaminants in eggs: identification, characterization, and potential risks

The first comprehensive assessment of **microplastic (MP)** contamination in **Bangladeshi** eggs, found MPs in all tested samples, with the highest concentrations in **layer eggs**. The MPs were primarily fibrous, polyethylene-based, and sized between 18–69 µm. Pollution indices indicated significant contamination, and toddlers were found to be exposed to higher levels of MPs through egg consumption. The findings highlight a previously undocumented exposure route and emphasize the need for food safety monitoring and regulatory action to mitigate MP-related health risks. [Food Biosci.](#), (22.12.2025).

★ Bisphenol color developers in thermal food labels

A global survey of 247 food **thermal labels** from 15 countries revealed that **bisphenol S (BPS)** was the most prevalent color developer, present in 48% of the samples, while **bisphenol A (BPA)** was detected in 2% despite regulatory restrictions. The study also identified the use of **newer alternatives like NKK-1304 (N-(2-(3-Phenylureido)phenyl)benzenesulfonamide) and DBSP (Bis(phenylsulfonyl)phenol)**. Migration tests using food simulants showed that polyvinyl chloride (PVC) cling films allowed significant migration of BPS and D-90 from the labels, whereas polyethylene (PE) films and paper-based materials acted as effective barriers. [Food Packaging Shelf](#), 8 pages. (01.2026).

★ Even one alcoholic drink a day may raise mouth cancer risk

New research suggests that even **light alcohol use** may carry serious risks. A large study in **India** found that drinking just one standard drink a day is linked to a roughly 50% higher **risk of mouth cancer**, with the greatest danger tied to locally brewed alcohol. When alcohol use overlaps with chewing tobacco, the effect becomes especially severe, potentially explaining nearly two-thirds of all cases nationwide. [ScienceDaily](#), (30.12.2025). Original Publication: [BMJ](#).

NUTRITION

★ Ultra processed foods make teenagers eat even when they are not hungry

A US study found that late **adolescents aged 18 to 21 consumed more calories** during an all-you-can-eat meal and **continued to snack** even when they were not hungry, after spending two weeks on a **diet high in ultra-processed foods** compared to a diet with no ultra-processed foods. However, this age group did not exhibit the same behaviour as slightly older participants (aged 22 to 25), suggesting a heightened vulnerability during late adolescence. As eating beyond hunger is a strong predictor of future weight gain, these results highlight a critical period during which highly processed foods may influence long-term eating behaviour. [ScienceDaily](#), 3 pages. (10.12.2025). Original Publication: [Obesity](#).

★ New trend - junk food for toddlers?

Between classic infant formula and baby food jars, a new product has arrived on the shelves for little ones: **baby snack biscuits**. Most are based on the same ingredient: **ultra-processed extruded cereals**, which encourage children to snack between meals even when they are not hungry. The Nutri-Bébé study, conducted by the French Baby Food Industry (SFAE) and published in October 2025, shows that one in ten parents give their young children savoury biscuits three or four times a week. [60 Millions de consommateurs](#), 3 pages. (18.12.2025).

★ **Stiftung Warentest warns against dangerous vitamin D overdoses**

Stiftung Warentest (Germany) warns against **high-dose vitamin D supplements**, as many over-the-counter products exceed safe daily limits. Medical associations report **rising cases of hypercalcemia** linked to excessive intake, with symptoms ranging from nausea to kidney and heart problems. While targeted vitamin D use may support depression treatment, unsupervised high-dose supplementation poses clear health risks amid booming supplement sales. [ad hoc news](#), 2 pages. (02.01.2026). Original Publication: [Stiftung Warentest](#). Additional Information: [WDR - Vitamin D: Stiftung Warentest warnt vor Überdosierung](#).

★ **Food preservative intake and type 2 diabetes risk**

Higher consumption of **food preservatives**, widely used in industrially processed foods and beverages to extend their shelf life, has been linked to an **increased risk of type 2 diabetes**. These findings are the result of work carried out by researchers from **France**. They are based on health and dietary data from more than 100,000 adults participating in the NutriNet-Santé cohort study. [EurekAlert](#), (07.01.2026). Original Publication: [NatureComm](#).

ALLERGY

★ **Dubai-style chocolate may contain undeclared allergens**

The **FSA** from the **United Kingdom** has identified several **Dubai-style chocolate** products that fail to meet required food safety and labelling standards, with some potentially containing undeclared allergens such as peanut and sesame. [FSA](#), 2 pages. (16.12.2025).

FRAUD / DECEPTION

★ **Consumer Advice Centre finds underfilling in selected food products**

The Saxony-Anhalt Consumer Advice Centre in **Germany** examined the fill quantities of various foods in a recent market survey. This revealed some remarkable differences: while consumers can rely on the information provided for most foods, some products such as **flour, potatoes** and, above all, **coffee beans** were found to be underfilled. A total of 736 food products from seven product groups were examined: **raspberries, blueberries, potatoes, flour, cream cheese, almonds** and **coffee**. Fifty-seven products (7.7%) were found to be underfilled. [LP](#), 3 pages. (10.12.2025). Original Publication: [VZ](#).

★ **Suspected food fraud cases in Sweden increase by 24%**

In 2024, Sweden reported a higher number of suspected food fraud cases to **iRASFF** than in the previous year, marking a **24% increase**. Two-thirds of the notifications (66%) were for **products from outside the EU**, primarily from Turkey, India, China, Egypt and Vietnam. The most frequently affected products were spices, cereals, food supplements, and fresh produce. The largest increases in reporting were observed for **ready meals and snacks** (+238%), **seafood** (+100%), and **confectionery** (+93%). [FoodSafetyMag](#), 2 pages. (16.12.2025). Original Publication: [SLV](#).

★ **Food fraud cases surge worldwide as prevention efforts fail**

Supply chain disruptions create vulnerabilities that criminals exploit, especially in **oils, honey, grains, dairy**, and spices. Experts recommend targeted testing, stricter supplier verification, and rapid incident response. Proactive measures not only enhance resilience but also build consumer trust and provide a competitive advantage. [FoodNavigator](#), 5 pages. (05.01.2026).

★ **Food adulteration in the MENA Region (2019-2024)**

This study presents the first multilingual analysis of **food adulteration in the MENA (Middle East and North Africa)** region from 2019-2024, combining media reports and RASFF data. It identified 254 media-reported incidents, with **expiration date** manipulation being the most common issue, and **1,261 RASFF notifications**, primarily linked to **contaminants** and **unauthorized** substances. [Food Biosci.](#), 10 pages. (06.01.2026).

Close up

New information has emerged from the FSVO's early detection system for food safety:

- Morgenthaler, U., Brüscheiler, B.J. and Mestrot, A. (2025), **Literature review on antimony concentrations in foodstuffs and consumer risk assessment**. Food Risk Assess Europe, 3: 0089E. <https://doi.org/10.2903/fr.efsa.2025.FR-0089>
- Ziegler, D., Stark, J., Meier, S. and Brodmann, P. (2026), **Microbiological Safety of Probiotic Food Supplements**. Food Risk Assess Europe, 4: 0088E. <https://doi.org/10.2903/fr.efsa.2026.FR-0088>

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