



FOOD POISONING vs FOOD INTOXICATION

In food safety, we often hear the term “food poisoning” used for everything. But scientifically, there is a clear difference between:

Food Infection (Foodborne Infection) - Occurs when a person consumes live pathogenic microorganisms that grow inside the intestine.

Examples: Salmonella, Escherichia coli, Campylobacter

🕒 Incubation period: Usually 6–72 hours

🤢 Symptoms: Fever, diarrhea, abdominal pain

Source: Undercooked meat, poultry, eggs, cross-contamination

Food Intoxication - Occurs when a person consumes toxins already formed in the food (even if bacteria are no longer alive).

Examples: Staphylococcus aureus (enterotoxin), Clostridium botulinum (botulinum toxin), Bacillus cereus (emetic toxin)

🕒 Incubation period: Rapid (1–6 hours in many cases)

🤢 Symptoms: Sudden vomiting, nausea

⚠️ Heat may kill bacteria... but toxins can remain active

Which Is More Dangerous? (From a public health perspective):

Most severe toxin: Botulinum toxin (high fatality rate if untreated)

Most common outbreak cause in catering: Staphylococcal intoxication

Most widespread global burden: Salmonella infections

How Do We Prevent Both? (Food Safety Perspective)

As food safety professionals, prevention focuses on:

- ✔ Temperature Control - keep hot food > 60°C , keep cold food < 5°C, avoid the danger zone (5–60°C)
- ✔ Personal Hygiene - proper handwashing, exclude sick food handlers, cover wounds (critical for Staph prevention)
- ✔ Cross-Contamination - control raw vs cooked separation, colour coding system, sanitise surfaces
- ✔ Time Control - rapid cooling, DO NOT leave food at room temperature, FIFO implementation
- ✔ HACCP & Monitoring - CCP validation, verification of cooking temperatures, regular microbiological testing