

Food Additives: A Modern Necessity Or a Hidden Risk?



Rosalie Richa

*MSc in Food Safety & Quality Management - NDU-Lebanon
Bachelor in Earth and Life Sciences
Lebanese University- Lebanon
Food Safety & Quality Auditor
Consultant / Freelancer*

the EU, the *European Food Safety Authority* (EFSA) evaluates additive safety, while in the U.S., the *Food and Drug Administration* (FDA) governs their use under the Federal Food, Drug, and Cosmetic Act. These regulatory systems are grounded in scientific assessments that define acceptable use levels, safety limits, and justified use. The following sections outline the key principles that govern the safe and appropriate use of food additives, including safety evaluation, conditions for use, and compliance with Good Manufacturing Practices (GMP).

a) Food Additive Safety:

- Additives listed in the *Codex*, are deemed safe when used within specified limits, based on current evidence assessed by the Joint FAO/WHO Expert Committee on Food Additives (JECFA).
- The inclusion of an additive in the *Codex* considers its Acceptable Daily Intake (ADI) or a comparable assessment, along with its probable daily intake from all dietary sources across different consumer groups.
- Additives must be used at or below the maximum level necessary to achieve their intended purpose.

b) Justification for Use:

Additives should only be used when they provide clear benefits, pose no health risks, do not mislead consumers, and fulfill one or more of the following technological purposes – when these effects cannot be achieved by other feasible means:

- Preserve the nutritional quality of food;
- Improve stability, shelf life, or organoleptic properties without altering the food's fundamental nature in a misleading way;
- Supply essential components for foods designed for individuals with special dietary needs;
- Support processing, preparation, packaging, transportation, or storage of food.

c) Good Manufacturing Practice (GMP):

Additives must be used in accordance with GMP, which includes:



- Using the lowest effective amount to achieve the desired function;
- Minimizing any residual additive that serves no further technical role;
- Ensuring the additive is of appropriate food-grade quality and handled like any other food ingredient;
- Complying with identity and purity specifications established by the *Codex*.

3. Health risks of food additives

Despite their utility, some additives may cause health issues, particularly in sensitive individuals. Reactions may include allergies, asthma, eczema flare-ups, rashes, headaches, vomiting, fever, and behavioral changes such as hyperactivity or difficulty concentrating.

Adverse effects can be either immediate or long-term. Immediate symptoms might include energy fluctuations, cognitive disturbances, or immune responses. Long-term exposure, especially to synthetic additives, may contribute to the development of chronic conditions such as cardiovascular disease, certain cancers, or degenerative disorders.

To reduce these risks, consumers are advised to check ingredient lists, limit processed and packaged foods, and opt for organic or additive-free products whenever possible. Transitioning to a cleaner diet can seem challenging, but it

opens the door to enjoying whole foods that the consumer will come to enjoy even more – fresh fruits, vegetables, legumes, grains, nuts, and seeds – and support better health and resilience over time.

References:

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