

What does FATTOM mean?

FATTOM is an acronym to enumerate the key factors contributing to pathogenic microorganisms' presence and growth rate in food.

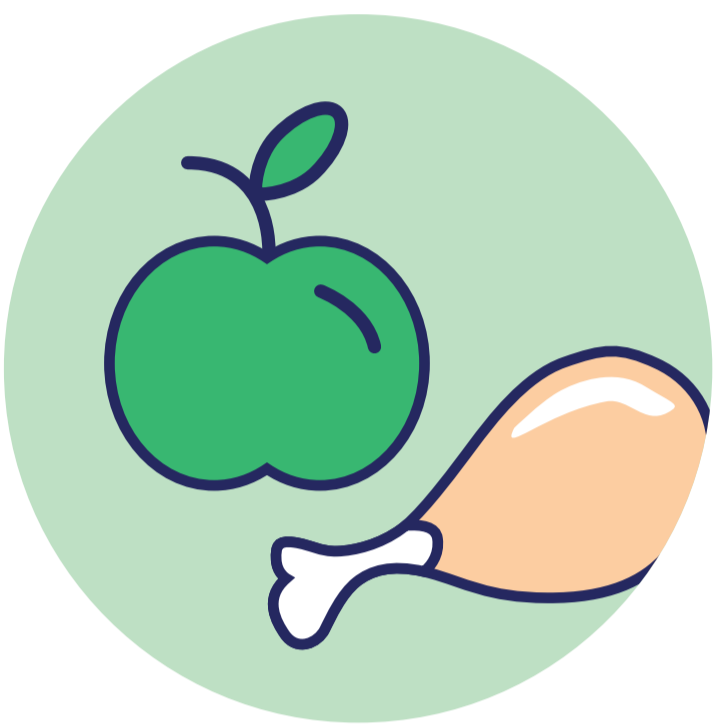


Food

Foods rich in proteins and carbohydrates are more likely to be contaminated, spoiled, and cause foodborne illness.

Preventive controls

- Use only high-quality and fresh ingredients
- Monitor the food storage conditions
- Immediately discard or isolate spoiled foods



Acid

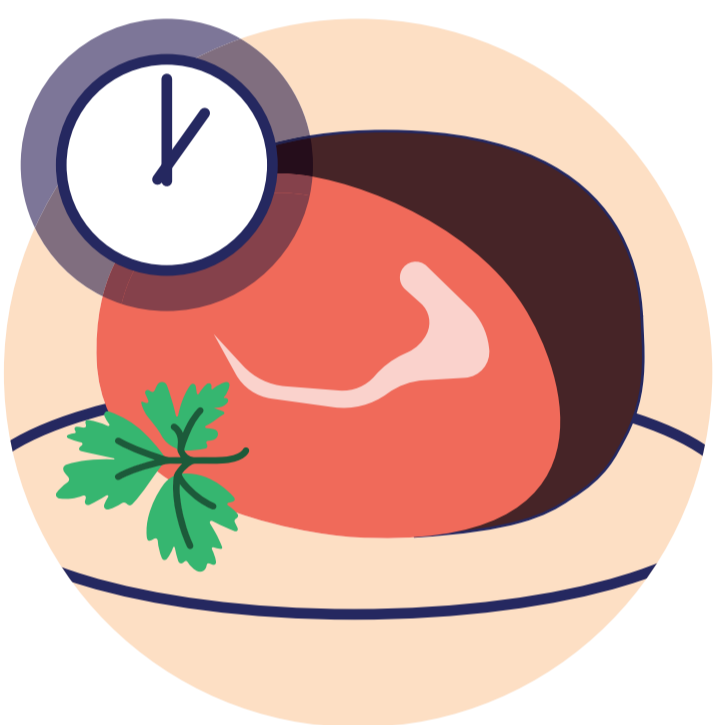
Foods with very high or very low acidity or pH are less likely to be spoiled by common pathogens.

Low-acid foods (pH > 4.6) such as meat and poultry, are very prone to bacterial contamination.

High-acid foods (pH < 4.6) such as fruits and fermented products, are generally more stable.

Preventive controls

- Where applicable, increase the acidity of low-acid foods by adding organic acids
- Properly cook low-acid foods
- Accurately measure the pH of foods with pH strips or a pH meter



Temperature

Avoid keeping foods in the **temperature danger zone** (40°F to 140°F), where the pathogens grow better. Cook foods to the recommended internal temperature.

Preventive controls

- Use a calibrated thermometer to ensure that foods are cooked to the recommended internal temperature
- Avoid storing high-risk foods in the temperature danger zone
- Consistently maintain storage temperature for high-risk foods



Time

All foods are perishable and have a definite shelf-life period.

Preventive controls

- Throw foods that were exposed to the temperature danger zone for more than 4 hours
- Always monitor the shelf-life of food products
- Follow the recommended heating times for cooking or reheating food products



Oxygen

Most foodborne pathogens require oxygen to support growth. Depending on the target pathogen to control, oxygen may be removed or added to food systems for control.

Preventive controls

- Use airtight containers to keep excess oxygen out
- Where applicable, use oxygen scavengers
- Vacuum seal foods for long-term storage



Moisture

Products with very high moisture and water activity are more likely to be contaminated and spoiled.

Preventive controls

- Keep foods in airtight containers to prevent the absorption of moisture from the environment
- Keep high-risk foods in a dry place to avoid excess moisture
- Use moisture absorbers or desiccants to control the humidity in storage areas