A

**Acidity**
Level of acid in a food. An acidic substance has a pH below 7.0. Foodborne microorganisms typically do not grow in highly acidic food, while they grow best in food with a neutral to slightly acidic pH.

**Active managerial control**
Food safety management system designed to prevent foodborne illness by addressing the five most common risk factors identified by the Centers for Disease Control and Prevention (CDC).

**Air curtains**
Devices installed above or alongside doors that blow a steady stream of air across an entryway, creating an air shield around open doors. Insects avoid them. Also called air doors or fly fans.

**Air gap**
Air space used to separate a water-supply outlet from any potentially contaminated source. The air space between the floor drain and the drainpipe of a sink is an example. An air gap is the only completely reliable method for preventing backflow.

**Approved suppliers**
Suppliers that have been inspected, are able to provide an inspection report, and that meet applicable local, state, and federal laws.

B

**Backflow**
Unwanted reverse flow of contaminants through a cross-connection into a drinkable water system. It occurs when the pressure in the drinkable water supply drops below the pressure of the contaminated supply.

**Bacteria**
Single-celled, living microorganisms that can spoil food and cause foodborne illness. Bacteria present in food can quickly multiply to dangerous levels when food is incorrectly cooked, held, or reheated. Some form spores that can survive freezing and very high temperatures.
Bacterial growth
Reproduction of bacteria by splitting in two. When conditions are favorable, bacterial growth can be rapid—doubling the population as often as every twenty minutes. Their growth can be broken down into four phases: lag phase, log phase, stationary phase, and death phase.

Bimetallic stemmed thermometer
The most common and versatile type of thermometer, measuring temperature through a metal probe with a sensor in the end. Most can measure temperatures from 0˚F to 220˚F (–18˚C to 104˚C) and are accurate to within ±2˚F (±1˚C). They are easily calibrated.

Biological contaminants
Microorganisms, such as viruses, bacteria, parasites, and fungi, as well as toxins found in certain plants, mushrooms, and seafood, that have contaminated food.

Biological toxins
Poisons produced by pathogens, plants, or animals. They can also occur in animals as a result of their diet.

Blast chiller
Equipment designed to cool food quickly. Many are able to cool food from 135˚F to 37˚F (57˚C to 3˚C) within 90 minutes.

Calibration
Process of ensuring that a thermometer gives accurate readings by adjusting it to a known standard, such as the freezing point or boiling point of water.

Carriers
People who carry pathogens and infect others, yet never get sick themselves.

Centers for Disease Control and Prevention (CDC).
Agencies of the U.S. Department of Health and Human Services that investigate foodborne-illness outbreaks, study the causes and control of disease, publish statistical data, and conduct the Vessel Sanitation Program.

Chemical contaminants
Chemical substances, such as cleaners, sanitizers, polishes, machine lubricants, and toxic metals that leach from cookware and equipment, which have contaminated food.
Chemical hazards
Chemical substances that can contaminate food, such as cleaners, sanitizers, polishes, machine lubricants, and toxic metals, that leach from cookware and equipment.

Chemical sanitizing
Using a chemical solution to reduce the number of microorganisms on a clean surface to safe levels. Items can be sanitized by immersing in a specific concentration of sanitizing solution for a required period of time or by rinsing, swabbing, or spraying the items with a specific concentration of sanitizing solution.

Chlorine
Commonly used chemical sanitizer due to its low cost and effectiveness. It kills a wide range of microorganisms.

Clean
Free of visible dirt. It refers only to the appearance of a surface.

Cleaners
Chemicals that remove food, dirt, rust stains, minerals, or other deposits from surfaces.

Cleaning
Process of removing food and other types of dirt from a surface, such as a countertop or plate.

Concentration
The amount of sanitizer to water measured in parts per million (ppm). The concentration of sanitizer affects the effectiveness of the sanitizer solution.

Contamination
Presence of harmful substances in food. Some food safety hazards occur naturally, while others are introduced by humans or the environment.

Corrective action
Predetermined step taken when food does not meet a critical limit.

Critical control points (CCPs)
In a HACCP system, the points in the process where you can intervene to prevent, eliminate, or reduce identified hazards to safe levels.
Critical limit
In a HACCP system, the minimum or maximum limit a critical control point (CCP) must meet in order to prevent, eliminate, or reduce a hazard to an acceptable level.

Cross-connection
Physical link through which contaminants from drains, sewers, or other wastewater sources can enter a drinkable water supply. A hose connected to a faucet and submerged in a mop bucket is an example.

Cross-contact
The transfer of an allergen from a food containing an allergen to a food that does not contain the allergen.

Cross-contamination
Occurs when microorganisms are transferred from one food or surface to another.

Date marking
A date on ready-to-eat TCS food held for more than 24 hours indicating by when the food must be sold, eaten, or thrown out.

Degreasers
Alkaline detergents, often called degreasers, that contain a grease-dissolving agent.

Demonstration
Process of illustrating a skill or task in front of another person or a group.

Detergent
Cleaner designed to penetrate and soften dirt to help remove it from a surface.

Exclusion
Prohibiting food handlers from working in the operation due to specific medical conditions.
F

FAT TOM
Acronym for the conditions needed by most foodborne microorganisms to grow: food, acidity, temperature, time, oxygen, moisture.

FDA Food Code
Science-based reference for retail food operations on how to prevent foodborne illness. These recommendations are issued by the FDA to assist state health departments in developing regulations for a foodservice inspection program.

Finger cot
Protective covering used to cover a correctly bandaged cut or wound on the finger.

First-in, first-out (FIFO)
Method of stock rotation in which products are shelved based on their use-by or expiration dates, so oldest products are used first.

Flood rim
Spill-over point of a sink.

Flow of food
Path food takes through an operation, from purchasing and receiving through storing, preparing, cooking, holding, cooling, reheating, and serving.

Food additives
Substances added to food to lengthen its shelf life. They are also used to alter food so it does not need time and temperature control. Some are used to enhance flavor.

Food allergen
A naturally-occurring protein in food or in an ingredient that some people are sensitive to. If enough of an allergen is eaten, an allergic reaction can occur.

Food allergy
The body’s negative reaction to a particular food protein.
Food and Drug Administration (FDA)
Federal agency that issues the FDA Food Code working jointly with the U.S. Department of Agriculture (USDA) and the Centers for Disease Control and Prevention (CDC). The FDA also inspects foodservice operations that cross state borders—interstate operations such as food manufacturers and processors, and planes and trains—because they overlap the jurisdictions of two or more states.

Foodborne illness
Illness carried or transmitted to people by food.

Foodborne-illness outbreak
An incident in which two or more people experience the same illness symptoms after eating the same food. An investigation is conducted by the state and local regulatory authorities, and the outbreak is confirmed by a laboratory analysis.

Food codes
State level food safety regulations that are written and adopted.

Food-contact surface
Surface that comes into direct contact with food, such as a cutting board.

Food defense
Program developed and implemented by an operation to prevent deliberate contamination of its food.

Food safety management system
Group of programs, procedures, and measures designed to prevent foodborne illness by actively controlling risks and hazards throughout the flow of food.

Foot-candle
Unit of lighting equal to the illumination one foot from a uniform light source. Also called lux.

Fungi
Ranging in size from microscopic, single-celled organisms to very large, multicellular organisms. Fungi most often cause food to spoil. Molds, yeasts, and mushrooms are examples.
**HACCP**

Food safety management system based on the idea that if significant biological, chemical, or physical hazards are identified at specific points within a product’s flow through the operation, they can be prevented, eliminated, or reduced to safe levels.

**HACCP plan**

Written document based on HACCP principles describing procedures a particular operation will follow to ensure the safety of food served. See *Hazard Analysis Critical Control Point*.

**Hair restraint**

Device used to keep a food handler’s hair away from food and to keep the individual from touching it.

**Hand antiseptic**

Liquid or gel used to lower the number of microorganisms on the skin’s surface. Hand antiseptics should only be used after correct handwashing, not in place of it. Only those hand antiseptics that are compliant with the Food and Drug Administration (FDA) should be used.

**Handwashing station**

Sink designated for handwashing only. Handwashing stations must be conveniently located in restrooms, food-preparation areas, service areas, and dishwashing areas.

**Hard water**

Water containing minerals such as calcium and iron in concentrations higher than 120 parts per million (ppm).

**Hazard analysis**

Process of identifying and evaluating potential hazards associated with food in order to determine what must be addressed in the HACCP plan.

**Hazard Analysis Critical Control Point (HACCP)**

Food safety management system based on the idea that if significant biological, chemical, or physical hazards are identified at specific points within a product’s flow through the operation, they can be prevented, eliminated, or reduced to safe levels.

**Health inspector**

City, county, or state staff member who conducts foodservice inspections. Health inspectors are also known as sanitarians, health officials, and environmental health specialists. They are generally trained in food safety, sanitation, and public health principles.
Heat sanitizing
Using heat to reduce the number of microorganisms on a clean surface to safe levels. One common way to heat sanitize tableware, utensils, or equipment is to submerge them in or spray them with hot water.

Hepatitis A
Disease-causing inflammation of the liver. It is transmitted to food by poor personal hygiene or contact with contaminated water.

High-risk population
People susceptible to foodborne illness due to the effects of age or health on their immune systems, including infants and preschool-age children, older people, people taking certain medications, and those with certain diseases or weakened immune systems.

Histamine
Biological toxin associated with temperature-abused scombroid fish (and other affected species), which causes scombroid poisoning.

Host
Person, animal, or plant on which another organism lives and from which it takes nourishment.

Hot-holding equipment
Equipment such as chafing dishes, steam tables, and heated cabinets specifically designed to hold food at an internal temperature of 135˚F (57˚C) or higher.

Ice paddle
Plastic paddle filled with ice or water and then frozen. Used to stir hot food to cool it quickly.

Ice-water bath
Method of cooling food in which a container holding hot food is placed into a sink or larger container of ice water. The ice water surrounding the hot food container disperses the heat quickly.

Imminent health hazard
A significant threat or danger to health that requires immediate correction or closure to prevent injury.
**Immune system**

The body’s defense system against illness. People with compromised immune systems are more susceptible to foodborne illness.

**Infestation**

Situation that exists when pests overrun or inhabit an operation in large numbers.

**Iodine**

Sanitizer effective at low concentrations and not as quickly inactivated by dirt as chlorine. It might stain surfaces and is less effective than chlorine.

**J**

**Jaundice**

Yellowing of the skin and eyes that could indicate a person is sick with hepatitis A.

**K**

**Key drop delivery**

The receipt of food by a foodservice operation after-hours while closed for business.

**M**

**Master cleaning schedule**

Detailed schedule listing all cleaning tasks in an operation, when and how they are to be performed, and who will perform them.

**Material Safety Data Sheets (MSDS)**

Sheets supplied by the chemical manufacturer listing the chemical and its common names, its potential physical and health hazards, information about using and handling it safely, and other important information. OSHA requires employers to store these sheets so they are accessible to staff.

**Microorganisms**

Small, living organisms that can be seen only with the aid of a microscope. There are four types of microorganisms that can contaminate food and cause foodborne illness: bacteria, viruses, parasites, and fungi.
Minimum internal temperature
The required minimum temperature the internal portion of food must reach to sufficiently reduce the number of microorganisms that might be present. This temperature is specific to the type of food being cooked. Food must reach and hold its required internal temperature for a specified amount of time.

Modified atmosphere packaging (MAP)
Packaging method by which the air inside of a package is altered using gases, such as carbon dioxide and nitrogen. Many fresh-cut produce items are packaged this way.

Mold
Type of fungus that causes food spoilage. Some molds produce toxins that can cause foodborne illness.

Monitoring
In a HACCP system, the process of analyzing whether critical limits are being met and procedures are being followed.

NSF
Organization that develops and publishes standards for sanitary equipment design. It also assesses and certifies that equipment has met these standards. Restaurant and foodservice managers should look for an NSF International Mark (or UL EPH product mark) on commercial foodservice equipment.

Occupational Safety and Health Administration (OSHA)
Federal agency that regulates and monitors workplace safety.

Off-site service
Service of food to someplace other than where it is prepared or cooked, including catering and vending.
Parasite
Organism that needs to live in a host organism to survive. Parasites can be found in water and inside many animals, such as cows, chickens, pigs, and fish. Correct cooking and freezing will kill parasites. Avoiding cross-contamination and practicing correct handwashing can also prevent illness.

Pathogens
Illness-causing microorganisms.

Personal hygiene
Habits that include keeping the hands, hair, and body clean and wearing clean and appropriate uniforms. Avoiding unsanitary actions and reporting illness and injury are also features of good personal hygiene.

Pest control operator (PCO)
Licensed professional who uses safe, current methods to prevent and control pests.

Pesticide
Chemical used to control pests, usually insects.

pH
Measure of a food’s acidity or alkalinity. The pH scale ranges from 0 to 14.0. A pH between 7.1 and 14 is alkaline, while a pH between 0.0 and 6.9 is acidic. A pH of 7.0 is neutral. Foodborne microorganisms grow well in food that has a neutral to slightly acidic pH (7.5 to 4.6).

Physical contaminants
Physical objects, such as hair, dirt, metal staples, and broken glass, as well as bones in fillets, which have contaminated food.

Physical hazards
Foreign objects that can accidentally get into food and contaminate it, such as hair, dirt, metal staples, and broken glass, as well as naturally-occurring objects, such as bones in fillets.

Pooled eggs
Eggs that have been cracked open and combined in a common container.
Q

Quaternary ammonium compounds (quats)
Group of sanitizers all having the same basic chemical structure. They work in most temperature and pH ranges, are noncorrosive, and remain active for short periods of time after they have dried. However, quats may not kill certain types of microorganisms, and they leave a film on surfaces.

R

Ready-to-eat food
Any food that is edible without further preparation, washing, or cooking. It includes washed fruit and vegetables, both whole and cut; deli meats; and bakery items. Sugars, spices, seasonings, and correctly cooked food items are also considered ready-to-eat.

Record keeping
In a HACCP system, the process of collecting documents that allow you to show you are continuously preparing and serving safe food.

Reduced-oxygen packaging (ROP).
Packaging method that reduces the amount of oxygen available in order to slow microbial growth. ROP methods include sous vide, MAP, and vacuum packaging.

Regulations
Laws determining standards of behavior. Restaurant and foodservice regulations are typically written at the state level and based on the FDA Food Code.

Restriction
Prohibiting food handlers from working with or around food, food equipment, and utensils.

S

Sanitizer
Chemical used to sanitize. Chlorine, iodine, and quats are the three most common types of chemical sanitizer in the restaurant and foodservice industry.

Sanitizing
Process of reducing the number of microorganisms on a clean surface to safe levels.
Shelf life
Recommended period of time during which food can be stored and remain suitable for use.

Single-use gloves
Disposable gloves designed for one-time use. They provide a barrier between hands and the food they touch. Gloves should never be used in place of handwashing. Food handlers should wash hands before putting on gloves and when changing to a new pair.

Single-use paper towel
Paper towel designed to be used once, then discarded.

Sneeze guard
Food shield placed over self-service displays and food bars that extends seven inches beyond the food and 14 inches above the food counter.

Sous vide food
Packaging method by which cooked or partially cooked food is vacuum packed in individual pouches and then chilled. This food is heated for service in the operation. Frozen, precooked meals are often packaged this way.

Spore
Form that some bacteria can take to protect themselves when nutrients are not available. Spores are commonly found in dirt and can contaminate food grown there. A spore can resist heat, allowing it to survive cooking temperatures. Spores can also revert back to a form capable of growth. This can occur when food is not held at the correct temperature or cooled or reheated correctly.

T
TCS food
Food that contains moisture and protein and has a neutral or slightly acidic pH. Such food requires time-temperature control to prevent the growth of microorganisms and the production of toxins.

Temperature danger zone
The temperature range between 41°F and 135°F (5°C to 57°C), within which most foodborne microorganisms rapidly grow.

Thermistors
Thermometers that check food temperature through a sensor on the tip of a metal probe.
Thermocouples
Thermometers that check food temperature through a sensor on the tip of a metal probe.

Thermometer
Device for accurately measuring the internal temperature of food, the air temperature inside a freezer or cooler, or the temperature of equipment. Bimetallic stemmed thermometers, thermocouples, and thermistors are common types of thermometers used in the restaurant and foodservice industry.

Time-temperature abuse
Food has been time-temperature abused any time it has been allowed to remain too long at a temperature favorable to the growth of foodborne microorganisms.

Time-temperature indicator (TTI)
Time and temperature monitoring device attached to a food shipment to determine if the product’s temperature has exceeded safe limits during shipment or subsequent storage.

Toxins
Poisons produced by pathogens, plants, or animals. Some occur in animals as a result of their diet.

U

U.S. Department of Agriculture (USDA)
Federal agency responsible for the inspection and quality grading of meat, meat products, poultry, dairy products, eggs and egg products, and fruit and vegetables shipped across state lines.

V

Vacuum breaker
Device preventing the backflow of contaminants into a drinkable water system.

Vacuum-packed food
Food processed by removing air from around it while sealed in a package. This process increases the product’s shelf life.

Variance
Document issued by a regulatory agency that allows a requirement to be waived or modified.
Vending machine
Machines that dispense hot and cold food, beverages, and snacks.

Verification
In a HACCP system, the process of confirming that critical control points and critical limits are appropriate, that monitoring is alerting you to hazards, that corrective actions are adequate to prevent foodborne illness from occurring, and that staff are following established procedures.

Virus
Smallest of the microbial food contaminants. Viruses rely on a living host to reproduce. They usually contaminate food through a food handler’s incorrect personal hygiene. Some survive freezing and cooking temperatures.

Water activity (aw)
Amount of moisture available in food for microorganisms to grow. It is measured in a scale from 0.0 to 1.0, with water having a water activity (aw) of 1.0. TCS food typically has a water-activity value of 0.85 or higher.

Yeast
Type of fungus that causes food spoilage.