

STUDENT COURSEBOOK

Chapter 3: Food

Sources • Receiving • Contamination Prevention • Cooking • Cooling • Holding • Date Marking • Labeling • Consumer Safety

Training note: This coursebook summarizes Chapter 3 of the 2026 FDA Food Code for instruction. Jurisdictional adoption and requirements may vary.

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How to Use This Coursebook

Chapter 3 is the core food-handling chapter of the 2026 FDA Food Code. It follows food from its source and receipt through storage, preparation, cooking, cooling, holding, labeling, service, and disposition.

Learning Objectives

- Identify approved food sources and safe receiving requirements.
- Prevent contamination during storage, preparation, display, and service.
- Apply minimum cooking temperatures and parasite-destruction requirements.
- Apply safe thawing, cooling, hot-holding, cold-holding, reheating, and date-marking rules.
- Explain time as a public health control and specialized-process variance requirements.
- Recognize labeling, allergen notification, consumer advisory, and highly susceptible population requirements.

Chapter 3 at a Glance

Part	Topic
3-1	Characteristics
3-2	Sources, Specifications, Original Containers and Records
3-3	Protection from Contamination After Receiving
3-4	Destruction of Organisms of Public Health Concern
3-5	Limitation of Growth of Organisms of Public Health Concern
3-6	Food Identity, Presentation, and On-Premises Labeling
3-7	Contaminated Food
3-8	Special Requirements for Highly Susceptible Populations

1. Safe Food and Approved Sources

Food must be safe, unadulterated, and honestly presented. Food must come from sources that comply with law. Food prepared in a private home may not be used or offered for human consumption in a food establishment.

- Hermetically sealed food must come from a regulated food processing plant.
- Fluid milk and milk products must come from sources meeting Grade A standards.
- Fish must be commercially and legally caught/harvested or otherwise approved.
- Molluscan shellfish must come from lawful, approved sources; recreationally caught shellfish may not be received for sale or service.
- Wild mushrooms require approval unless they meet specified regulated-source exceptions.
- Game animals must meet applicable inspection and processing requirements.

Manager takeaway: If the source cannot be verified as approved, do not accept the food.

2. Receiving Food Safely



Chapter 3 visual: verify receiving temperatures and condition.

Food at Receiving	Requirement
Refrigerated TCS food	41°F (5°C) or below, unless another temperature is allowed by law
Raw shell eggs	Received in refrigerated equipment maintaining ambient air at 45°F (7°C) or less
Hot TCS food	135°F (57°C) or above
Food labeled/shipped frozen	Received frozen
All TCS food	Free of evidence of previous temperature abuse

- Packages must be in good condition and protect food from contamination.
- Ice used as food or as a cooling medium must be made from drinking water.
- Egg products, milk products, frozen milk products, and most cheeses must meet applicable pasteurization requirements.
- Shellstock must be reasonably free of mud, dead shellstock, and badly broken shells.

3. Shellfish Identification and Records

Molluscan shellfish have detailed identification and recordkeeping rules because source tracing is critical during an illness investigation.

- Required tags/labels generally remain attached to the container until empty.
- Record the date the last shellfish from the container is sold or served.
- Retain required source-identification records for 90 calendar days from the recorded date.
- Do not commingle shellfish from containers with different certification numbers, harvest dates, or growing areas before consumer ordering, except as allowed by the Code.

4. Preventing Contamination



Chapter 3 visual: separate raw animal foods from ready-to-eat foods.

Bare-Hand Contact

Food employees generally may not touch exposed ready-to-eat food with bare hands. Suitable utensils include deli tissue, spatulas, tongs, single-use gloves, and dispensing equipment. Limited exceptions require the conditions specified by the Code, including regulatory approval and written controls for an approved bare-hand-contact procedure.

Cross-Contamination Prevention

- Separate raw animal foods from raw ready-to-eat foods, cooked ready-to-eat foods, and unwashed fruits and vegetables.
- Separate different types of raw animal food when needed to prevent cross-contamination.
- Use clean and sanitized equipment and utensils.
- Store food in packages, covered containers, or wrappings except where specific exceptions apply.
- Wash raw fruits and vegetables thoroughly before cutting, combining, cooking, serving, or offering them ready-to-eat, unless an exception applies.
- Never reuse a tasting utensil to taste food that will be sold or served.

Food Storage

Food must generally be stored in a clean, dry location, protected from splash, dust, and other contamination, and at least 6 inches (15 cm) above the floor. Food may not be stored in areas such as toilet rooms, locker rooms, garbage rooms, mechanical rooms, or under sources of leakage or contamination.

5. Utensils, Wiping Cloths, Gloves, and Consumer Protection

- Store in-use utensils in an approved manner between uses; handles should be positioned to prevent contamination.
- Wet wiping cloths used on counters/equipment are held between uses in the proper sanitizer solution; cloths used with raw animal foods are kept separate.
- Single-use sanitizer wipes must be used according to EPA-approved manufacturer label instructions.
- Single-use gloves are normally for one task only and must be discarded when damaged, soiled, or contaminated.
- The 2026 Code adds an approved double-gloving exception under specific conditions: a protected interior single-use glove may remain while a loose task-specific exterior glove is removed without contaminating the interior glove.
- Food on display must be protected by packaging, food guards, display cases, or other effective means.
- Buffets and salad bars require suitable utensils/dispensing methods and trained employee monitoring.
- Food returned after being in a consumer's possession generally may not be re-served, with limited exceptions for protected non-TCS foods.

6. Cooking Food Safely

Cooking requirements depend on the food and process. These are the major minimums students should know:

Food / Process	Minimum Requirement
Raw eggs prepared for immediate service; fish; intact meat (with stated exceptions)	145°F (63°C) for 15 seconds
Ground products / comminuted foods (including ground beef, ground pork, ground fish); other non-intact meats; ratites; raw eggs not for immediate service	155°F (68°C) for 17 seconds, or an equivalent listed time/temperature combination
Poultry; baluts; wild game in specified categories; stuffed fish/meat/pasta/poultry/ratites; stuffing containing animal foods	165°F (74°C) instantaneous
Raw animal food cooked in microwave	165°F in all parts; rotate/stir, cover, then stand covered 2 minutes
Plant foods cooked for hot holding	135°F (57°C)

Do not rely on color alone. Verify required internal temperatures with an appropriate food thermometer.

Whole meat roasts use specific time/temperature and oven parameters in § 3-401.11(B). Raw or undercooked foods may be offered only when the applicable exceptions, consumer advisory, and population restrictions are satisfied.

7. Parasite Destruction for Fish

Unless an exception applies, fish served raw, raw-marinated, partially cooked, or marinated-partially cooked in ready-to-eat form must undergo parasite-destruction freezing.

Freezing Option	Requirement
-4°F (-20°C) or below	Minimum 7 days
-31°F (-35°C) or below	Freeze until solid and store at -31°F or below for at least 15 hours
-31°F (-35°C) until solid, then -4°F (-20°C) or below	At least 24 hours at -4°F or below

The Code lists exceptions, including molluscan shellfish, certain tuna species, qualifying aquacultured fish, and specified fish eggs. Required freezing or supplier records are generally retained for 90 calendar days beyond service or sale.

8. Reheating for Hot Holding

Food	Reheating Requirement
TCS food cooked, cooled, and reheated for hot holding	165°F (74°C) for 15 seconds
TCS food reheated in microwave for hot holding	165°F throughout; rotate/stir, cover, and stand covered 2 minutes
Commercially processed, packaged RTE TCS food reheated for hot holding	At least 135°F (57°C)

Reheating for hot holding must be rapid; the time food is between 41°F and the required reheating temperature may not exceed 2 hours.

9. Thawing Food Safely

- Under refrigeration at 41°F (5°C) or less.
- Completely submerged under running water at 70°F (21°C) or below while meeting the Code's time/temperature conditions.
- As part of the cooking process.
- In a microwave when immediately transferred to conventional cooking equipment without interruption.
- For immediate-service portions of frozen ready-to-eat food, using a procedure allowed by the Code.
- Reduced-oxygen-packaged fish labeled to remain frozen until use must be removed from the reduced-oxygen environment as required before/during thawing.

10. Cooling Food Safely



4 Cooling Food

135°F
Start cooling

↓

70°F
within 2 hours

↓

41°F
within 6 hours total

✓ Use shallow pans and other approved methods to cool food safely.

Chapter 3 visual: cool cooked TCS food from 135°F to 70°F within 2 hours and to 41°F within 6 hours total.

Cooling Situation	Requirement
Cooked TCS food	135°F → 70°F within 2 hours; 135°F → 41°F or less within 6 hours total
TCS food prepared from ambient-temperature ingredients	Cool to 41°F or less within 4 hours
TCS food legally received above 41°F under specified distribution law	Generally cool to 41°F or less within 4 hours

- Use shallow pans.
- Separate food into smaller or thinner portions.
- Use rapid cooling equipment.
- Use an ice-water bath and stir.
- Use heat-transfer containers.

- Add ice as an ingredient.
- Use a food depth of no more than 2 inches where applicable.
- Use other effective methods.

The 2026 Code also includes an approved alternative cooling process using food no more than 2 inches deep, held uncovered in refrigeration at 41°F ambient or less, with continuous electronic monitoring of time and ambient air temperature.

11. Hot Holding, Cold Holding, and Date Marking



Chapter 3 visual: 135°F or above for hot holding, 41°F or below for cold holding, and date marking for applicable RTE TCS food.

Control	Requirement
Hot holding TCS food	135°F (57°C) or above; specified roasts may be held at 130°F or above
Cold holding TCS food	41°F (5°C) or less
Untreated shell eggs	Refrigerated equipment at ambient air 45°F (7°C) or less
RTE TCS food held >24 hours	Date mark; maximum 7 days at 41°F or less; preparation/opening day is Day 1

When date-marked ingredients are combined, the finished food retains the date of the earliest-prepared or first-prepared applicable ingredient. Food that exceeds the permitted time, lacks required date marking, or is incorrectly marked must be discarded.

12. Time as a Public Health Control

Time may be used instead of temperature control only when the Code's requirements are met and written procedures are prepared in advance, maintained in the establishment, and available to the regulatory authority.

Method	Key Limits
Up to 4 hours	Food generally starts at ≤41°F or ≥135°F; mark the 4-hour discard/service time and use or discard within 4 hours. Specific RTE cut produce/opened hermetically sealed food provisions allow an initial temperature up to 70°F under stated conditions.
Up to 6 hours	Food starts at ≤41°F, may not exceed 70°F, is monitored and marked, and is used or discarded within 6 hours.

An establishment serving a highly susceptible population may not use time as the public health control for raw eggs.

13. Specialized Processing and Variances

A variance is required before certain specialized processes unless a specific Code exception applies.

- Smoking food for preservation rather than flavor.
- Curing food.
- Using additives or components such as vinegar for preservation or to render food non-TCS.
- Certain reduced-oxygen packaging methods.
- Operating a molluscan shellfish life-support display tank for shellfish offered for consumption.
- Custom processing animals for personal use.
- Other processes the regulatory authority determines require a variance.
- Sprouting seeds or beans.

Reduced oxygen packaging without a variance has detailed controls for *Clostridium botulinum* and *Listeria monocytogenes* and may require a HACCP plan, temperature controls, labeling, shelf-life limits, designated work areas, sanitation procedures, and training.

14. Food Labels, Allergens, and Consumer Advisory



Chapter 3 visual: protect food from contamination and provide required consumer information.

Packaged Food Labels

- Common name or adequate identity statement.
- Ingredients and sub-ingredients in descending order by weight when applicable.
- Net quantity of contents.
- Name and place of business of manufacturer, packer, or distributor.
- Food source for each major food allergen unless already part of the ingredient's common/usual name.
- Nutrition labeling when required by law.

Unpackaged Food and Allergens

The permit holder must provide written notification to consumers of major food allergens present as ingredients in unpackaged food items served or sold to consumers.

Consumer Advisory

When raw or undercooked animal foods are offered as allowed, consumers must be informed of the significantly increased risk through a written disclosure and reminder, subject to the Code's exceptions.

15. Contaminated Food and Highly Susceptible Populations

Unsafe, adulterated, or improperly sourced food must be discarded or reconditioned only according to an approved procedure. Ready-to-eat food that may have been contaminated by a restricted or excluded employee, or food contaminated by hands or bodily discharges, must be discarded.

Highly Susceptible Populations

- Specified untreated/unpasteurized juice may not be served.
- Pasteurized eggs or egg products are required for specified recipes and pooled-egg uses, subject to stated exceptions.
- Raw animal foods, partially cooked animal foods, raw seed sprouts, and specified packaged foods may not be served ready-to-eat.
- Food employees may not use the bare-hand-contact allowance for ready-to-eat food.
- Time alone may not be used as the public health control for raw eggs.
- Additional restrictions apply to re-service of food in medical isolation/quarantine and protective environments.

Chapter 3 Quick Review

Remember	Core Rule
Approved source	Food must come from lawful, approved sources.
Receiving	Cold TCS $\leq 41^{\circ}\text{F}$; hot TCS $\geq 135^{\circ}\text{F}$; shell eggs ambient $\leq 45^{\circ}\text{F}$.
Cooking	145°F / 155°F / 165°F requirements depend on food and process.
Cooling	$135^{\circ}\text{F} \rightarrow 70^{\circ}\text{F}$ in 2 hours; $135^{\circ}\text{F} \rightarrow 41^{\circ}\text{F}$ in 6 hours total.
Holding	Hot $\geq 135^{\circ}\text{F}$; cold $\leq 41^{\circ}\text{F}$.
Date marking	Applicable refrigerated RTE TCS food: max 7 days at $\leq 41^{\circ}\text{F}$; Day 1 is prep/opening day.
Consumer safety	Protect food, disclose allergens, and provide required raw/undercooked advisory.

End-of-Chapter Multiple-Choice Review

1. Cold TCS food is generally received at:

- A. 50°F or below
- B. 45°F or below
- C. 41°F or below
- D. 32°F or below

2. Hot TCS food received hot must generally be at:

- A. 125°F or above
- B. 130°F or above
- C. 135°F or above
- D. 145°F or above

3. Raw shell eggs are received in refrigerated equipment maintaining ambient air at:

- A. 41°F or less
- B. 45°F or less
- C. 50°F or less
- D. 55°F or less

4. Food prepared in a private home may be used in a food establishment:

- A. Always
- B. If labeled homemade
- C. Only on weekends
- D. No

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5. Shellfish source records are generally retained for:

- A. 7 days
- B. 30 days
- C. 90 days
- D. 1 year

6. Bare-hand contact with exposed ready-to-eat food is generally:

- A. Required
- B. Prohibited unless an applicable exception/procedure is met
- C. Allowed if hands look clean
- D. Allowed during busy periods

7. A tasting utensil used to taste food for sale or service may be used:

- A. Repeatedly
- B. Twice
- C. Only once before cleaning/replacement
- D. All shift

8. Food is generally stored at least how far above the floor?

- A. 2 inches
- B. 4 inches
- C. 6 inches
- D. 12 inches

9. Single-use gloves are normally used for:

- A. One task
- B. One day
- C. One week
- D. Any task until torn

10. Fish and intact meat covered by the standard 145°F rule are cooked to 145°F for:

- A. Instantaneously
- B. 10 seconds
- C. 15 seconds
- D. 30 seconds

11. Comminuted/non-intact meats under the standard 155°F rule are cooked to 155°F for:

- A. 17 seconds
- B. 15 seconds
- C. 1 minute
- D. 3 minutes

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12. Poultry is cooked to at least:

- A. 135°F
- B. 145°F
- C. 155°F
- D. 165°F instantaneous

13. Raw animal food cooked in a microwave must reach:

- A. 145°F
- B. 155°F
- C. 165°F in all parts
- D. 180°F

14. Plant food cooked for hot holding must reach:

- A. 125°F
- B. 130°F
- C. 135°F
- D. 145°F

15. One parasite-destruction option for applicable fish is -4°F or below for:

- A. 24 hours
- B. 3 days
- C. 7 days
- D. 30 days

16. TCS food cooked, cooled, and reheated for hot holding is generally reheated to:

- A. 135°F for 15 sec
- B. 145°F for 15 sec
- C. 155°F for 17 sec
- D. 165°F for 15 sec

17. Commercially processed packaged RTE TCS food reheated for hot holding must reach at least:

- A. 125°F
- B. 130°F
- C. 135°F
- D. 165°F

18. Reheating for hot holding must generally move through 41°F to the required reheating temperature within:

- A. 1 hour
- B. 2 hours
- C. 4 hours
- D. 6 hours

19. Running-water thawing uses water at:

- A. 90°F or below
- B. 80°F or below
- C. 70°F or below
- D. 60°F or below

20. Cooked TCS food must cool from 135°F to 70°F within:

- A. 1 hour
- B. 2 hours
- C. 4 hours
- D. 6 hours

21. Cooked TCS food must cool from 135°F to 41°F or less within a total of:

- A. 2 hours

- B. 4 hours
- C. 6 hours
- D. 8 hours

22. Which is an approved cooling method?

- A. Deep covered bucket at room temperature
- B. Shallow pans
- C. Stacking hot pans tightly
- D. Sealing immediately in a large container

23. Cold-held TCS food is generally maintained at:

- A. 45°F or less
- B. 43°F or less
- C. 41°F or less
- D. 50°F or less

24. Hot-held TCS food is generally maintained at:

- A. 125°F or above
- B. 130°F or above
- C. 135°F or above
- D. 145°F or above

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25. Applicable refrigerated RTE TCS food held more than 24 hours may generally be kept at 41°F or less for a maximum of:

- A. 3 days
- B. 5 days
- C. 7 days
- D. 10 days

26. For date marking, the day food is prepared or the applicable original container is opened is:

- A. Day 0
- B. Day 1
- C. Day 2
- D. Not counted

27. Under the 6-hour time-as-public-health-control option, food may not exceed:

- A. 60°F
- B. 65°F
- C. 70°F
- D. 75°F

28. Which process specifically requires a variance under Chapter 3?

- A. Washing lettuce
- B. Sprouting seeds or beans
- C. Grilling chicken
- D. Cold holding milk

29. For unpackaged food, the permit holder must provide written notification of:

- A. Employee names
- B. Major food allergens used as ingredients
- C. Vendor prices
- D. Daily sales

30. A consumer advisory for allowed raw/undercooked animal foods uses:

- A. A disclosure and reminder
- B. Only a verbal warning
- C. A cooking log only
- D. A delivery invoice

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Answer Key

1–10	11–20	21–30
1. C	11. A	21. C
2. C	12. D	22. B
3. B	13. C	23. C
4. D	14. C	24. C
5. C	15. C	25. C
6. B	16. D	26. B
7. C	17. C	27. C
8. C	18. B	28. B
9. A	19. C	29. B
10. C	20. B	30. A

Source and Training Use

Primary source: U.S. Food and Drug Administration, 2026 Food Code, Chapter 3 — Food. This coursebook paraphrases and organizes Chapter 3 for student instruction. Consult the official Food Code and the applicable regulatory authority for exact regulatory language and jurisdiction-specific requirements.

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