



2009 FDA Food Code Supplement for the ServSafe® Fifth Edition

The 2009 *FDA Food Code* includes several updates and new topics that are important parts of the ServSafe® training program. Instructors and students are strongly encouraged to review the information in this document thoroughly to ensure they are learning the latest food safety science. In April 2010, these updates and new topics will be published in the *ServSafe Essentials* and *ServSafe Coursebook, Fifth Editions, Updated with the 2009 FDA Food Code*. These updates may also be included in the ServSafe Food Protection Manager Certification Examination.

To help identify the new information, this supplement outlines the changes and where they are addressed within the ServSafe Fifth Edition training materials.

- First column—Lists the *FDA Food Code* change and indicates whether this is an update or a new topic in the ServSafe training materials.
- Second column—Lists the language that will be used in the ServSafe training materials to reflect the FDA's recommendations.
- Third, fourth, and fifth columns—Lists the textbook page numbers and online course section where the changes will affect *ServSafe Essentials* and *ServSafe Coursebook, Fifth Editions*, and the ServSafe Manager Online Course, respectively.

Note about the ServSafe Food Protection Manager Certification Examination

The ServSafe Food Protection Manager Certification Exam tests the most up-to-date information on food safety. When changes to science occur, such as the recent *FDA Food Code* changes, the exam also must be updated. The ServSafe Food Protection Manager Certification Exam will soon contain pilot questions that test the new information presented in the 2009 *FDA Food Code*. These pilot questions do not affect an examinee's score. If the questions prove to be valid, reliable measures of an examinee's knowledge, then they may be present on the July 2010 examinations as scored questions.



Summary of the 2009 FDA Food Code change	The ServSafe Material will now state	Essentials	Coursebook	Manager Online
<p>The FDA has added cut leafy greens to the list of food items requiring time and temperature control for safety (TCS food).</p> <p>This information will be added to existing content.</p>	<p>Food Most Likely to Become Unsafe</p> <p>Cut leafy greens require time and temperature control for safety. This includes fresh leafy greens that have been cut, shredded, sliced, chopped, or torn. Lettuce, spinach, and cabbage are examples.</p>	p. 2.4	p. 2-5	<p>Unit I The Food Safety Challenge>>The Microworld>>Pathogens>></p> <p>Food Most Likely to Become Unsafe Screen 6 of 7</p>
<p>The FDA recommends allowing the use of unheated, forced-air hand dryers for drying hands after handwashing.</p> <p>This information will be used to revise existing content.</p>	<p>Handwashing</p> <p>After they have been washed, hands should be dried with a single-use paper towel or a hand dryer that uses room-temperature air delivered at high velocity or warm air.</p>	<p>p. 4.5</p> <p>p. 10.7</p>	<p>pp. 4-5 to 4-6 (Exhibit 4b)</p> <p>p. 11-10</p> <p>p. 11-11 (Exhibit 11h)</p>	<p>Unit I The Food Safety Challenge>>The Safe Foodhandler>>Hand Practices and Hand Care>></p> <p>How to Wash Your Hands Screen 2 of 9</p> <p>Unit III Food Safety Management Systems, Facilities, and Pest Management>>Sanitary Facilities and Equipment>>Interior Requirements>></p> <p>Handwashing Stations Screen 6 of 6</p>
<p>The FDA no longer recommends separate storage of frozen, commercially processed ready-to-eat food and packaged raw meat, poultry, and seafood.</p> <p>This information will be added to existing content.</p>	<p>Frozen Storage</p> <p>Raw meat, poultry, and seafood can be stored with or above ready-to-eat food in a freezer if all of the items have been commercially processed and packaged.</p>	p. 6.11	p. 7-7	<p>Unit II The Flow of Food Through the Operation >> Purchasing, Receiving, and Storing>> Storing >></p> <p>Refrigerated and Frozen Storage Screen 6 of 9</p>

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Summary of the 2009 FDA Food Code change	The ServSafe Material will now state	Essentials	Coursebook	Manager Online
<p>The FDA has recommended that ozone be allowed for sanitizing fruit and vegetables.</p> <p>This is a new topic.</p>	<p>Prepping Produce</p> <p>Produce can be sanitized by washing it in water containing ozone. Check with your local regulatory authority to see if this is allowed in your area.</p>	p. 7.3	p. 8-7	<p>Unit II The Flow of Food Through the Operation >> Preparation>>Produce and Salads Containing TCS Food >></p> <p>New topic—add to Prepping Produce Screen 2 of 5</p>
<p>The FDA recommends that <i>Listeria monocytogenes</i> and <i>Clostridium botulinum</i> be identified as risks to food packaged under reduced-oxygen conditions.</p> <p>This information will be added to existing content.</p>	<p>Preparation Practices That Require a Variance</p> <p>Packaging food using a reduced-oxygen packaging (ROP) method requires a variance. This includes MAP, vacuum-packed, and <i>sous vide</i> food. <i>Clostridium botulinum</i> and <i>Listeria monocytogenes</i> are risks to food packaged in these ways.</p>	p. 7.5	p. 8-8	<p>Unit II The Flow of Food Through the Operation >> Preparation>>Fresh Juice, Ice, and Variances >></p> <p>Variances Screen 7 of 7</p>
<p>The FDA recommends adding mechanically tenderized meat to the list of food items that must be cooked to 155°F (68°C) for 15 seconds.</p> <p>This information will be used to revise existing content.</p>	<p>Cooking Requirements for Specific Types of Food</p> <p>Mechanically tenderized meat must be cooked to a minimum internal temperature of 155°F (68°C) for 15 seconds.</p>	p. 7.9	<p>p. 8-9 (Exhibit 8f)</p> <p>p. 8-14</p>	<p>Unit II The Flow of Food Through the Operation >> Preparation>>Thawing, Breading/Batter, Temperatures, and Microwave Cooking >></p> <p>Cooking Requirements for Specific Types of Food Screen 6 of 8</p>

Summary of the 2009 FDA Food Code change	The ServSafe Material will now state	Essentials	Coursebook	Manager Online
<p>The FDA has added new requirements for noncontinuous cooking of meat, seafood, poultry, and eggs and dishes containing these items.</p> <p>This is a new topic.</p>	<p>Partial Cooking during Preparation</p> <p>Some operations partially cook food during prep and then finish cooking it just before service.</p> <p>You must follow the steps below if you plan to partially cook meat, seafood, poultry, or eggs or dishes containing these items.</p> <ol style="list-style-type: none"> ❶ Do not cook the food for longer than 60 minutes during initial cooking. ❷ Cool the food immediately after initial cooking. ❸ Freeze or refrigerate the food after cooling it. If refrigerating the food, make sure it is held at 41°F (5°C) or lower. ❹ Heat the food to at least 165°F (74°C) before selling or serving it. ❺ Cool the food if it will not be served immediately or held for service. <p>Your local regulatory authority may require you to have written procedures that explain how the food cooked by this process will be prepped and stored. These procedures must be approved by the regulatory authority and describe the following.</p> <ul style="list-style-type: none"> • How the requirements will be monitored and documented • Which corrective actions will be taken if requirements are not met • How these food items will be marked after initial cooking to indicate that they need further cooking • How these food items will be separated from ready-to-eat food during storage, once initial cooking is complete 	<p>p. 7.10</p>	<p>p. 8-17</p>	<p>Unit II The Flow of Food Through the Operation>> Preparation>>Thawing, Breading/Batter, Temperatures, and Microwave Cooking>></p> <p>New topic—after screen 7</p>



Summary of the 2009 FDA Food Code change	The ServSafe Material will now state	Essentials	Coursebook	Manager Online
<p>The FDA recommends prohibiting undercooked food from being offered on a children’s menu.</p> <p>This is a new topic.</p>	<p>Children’s Menus</p> <p>The FDA advises against offering raw or undercooked meat, poultry, seafood, or eggs to children. This is especially true for undercooked ground beef, which may be contaminated with <i>E. coli</i> 0157:H7.</p>	<p>p. 7.10</p>	<p>p. 8-10</p>	<p>Unit II The Flow of Food Through the Operation >> Preparation>> Checking Temperatures, Consumer Advisories, and High-Risk Populations >></p> <p>New topic—add to Consumer Advisories Screen 2 of 3</p>



Summary of the 2009 FDA Food Code change	The ServSafe Material will now state	Essentials	Coursebook	Manager Online																						
<p>The FDA recommends alternative temperatures for reheating roasts for hot-holding.</p> <p>This information will be added to existing content.</p>	<p>Food Reheated for Hot-Holding</p> <p>From start to finish, you must heat the food to an internal temperature of 165°F (74°C) within two hours. Make sure the food stays at this temperature for at least 15 seconds.</p> <p>Roasts can be reheated to the alternative temperatures listed below, depending on the type of roast and the oven used. Check your local regulatory requirements.</p> <table border="1"> <thead> <tr> <th>Temperature</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>130°F (54°C)</td> <td>112 minutes</td> </tr> <tr> <td>131°F (55°C)</td> <td>89 minutes</td> </tr> <tr> <td>133°F (56°C)</td> <td>56 minutes</td> </tr> <tr> <td>135°F (57°C)</td> <td>36 minutes</td> </tr> <tr> <td>136°F (58°C)</td> <td>28 minutes</td> </tr> <tr> <td>138°F (59°C)</td> <td>18 minutes</td> </tr> <tr> <td>140°F (60°C)</td> <td>12 minutes</td> </tr> <tr> <td>142°F (61°C)</td> <td>8 minutes</td> </tr> <tr> <td>144°F (62°C)</td> <td>5 minutes</td> </tr> <tr> <td>145°F (63°C)</td> <td>4 minutes</td> </tr> </tbody> </table>	Temperature	Time	130°F (54°C)	112 minutes	131°F (55°C)	89 minutes	133°F (56°C)	56 minutes	135°F (57°C)	36 minutes	136°F (58°C)	28 minutes	138°F (59°C)	18 minutes	140°F (60°C)	12 minutes	142°F (61°C)	8 minutes	144°F (62°C)	5 minutes	145°F (63°C)	4 minutes	p. 7.15	p. 8-19	<p>Unit II The Flow of Food Through the Operation >> Preparation>>Cooling and Reheating Food >></p> <p>Reheating Food Screen 6 of 12</p>
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<p>The FDA has outlined requirements for preset tableware.</p> <p>This is a new topic.</p>	<p>Preset Tableware</p> <p>If your operation presets tableware on dining tables, you must take steps to prevent it from becoming contaminated. This might include wrapping or covering the items.</p> <p>Table settings do not need to be wrapped or covered if extra settings meet these requirements.</p> <ul style="list-style-type: none"> • They are removed when guests are seated. • If they remain on the table, they are cleaned and sanitized after guests have left. 	p. 8.7	p. 9-7	<p>Unit II The Flow of Food Through the Operation >> Service>>Serving Food>></p> <p>Service Staff Guidelines</p> <p>New topic—after screen 5</p>
<p>The FDA has clarified that a HACCP plan is required when preparing <i>sous vide</i> food products.</p> <p>This information will be added to existing content.</p>	<p>When a HACCP Plan Is Required</p> <p>A HACCP plan is required when packaging food using reduced-oxygen packaging (ROP) methods. This includes MAP, vacuum-packed, and <i>sous vide</i> food. <i>Clostridium botulinum</i> and <i>Listeria monocytogenes</i> are risks to food packaged in these ways.</p>	p. 9.12	p. 10-13	<p>Unit III Food Safety Management Systems, Facilities, and Pest Management >>Food Safety Management Systems >> HACCP>></p> <p>When a HACCP Plan Is Required</p> <p>Screen 10 of 11</p>
<p>The FDA has revised guidelines for using chlorine and iodine sanitizing solutions. Concentration ranges have been added for the use of chlorine, and the minimum temperature for iodine solutions has been revised.</p> <p>This information will be used to revise existing content.</p>	<p>Sanitizer Effectiveness</p> <p>See the separate chart at the end of this document for exact language.</p>	<p>p. 11.5</p> <p>p. 11.6</p> <p><i>Apply Your Knowledge</i></p> <p>p. 11.22</p> <p><i>Apply Your Knowledge Answers</i></p>	p. 12-8 (Exhibit 12d)	<p>Unit III Food Safety Management Systems, Facilities, and Pest Management >>Cleaning and Sanitizing>>Methods and Tools for Cleaning and Sanitizing>></p> <p>Knowledge Check: Sanitizing</p> <p>Screen 10 of 10</p>

Summary of the 2009 FDA Food Code change	The ServSafe Material will now state	Essentials	Coursebook	Manager Online
<p>The FDA recommends that utensils and equipment not be rinsed after being sanitized unless the rinse will occur in a commercial warewashing machine under specific conditions.</p> <p>This information will be added to existing content.</p>	<p>How to Clean and Sanitize in a Three-Compartment Sink</p> <p>Never rinse items after sanitizing them. This could contaminate their surfaces.</p> <p>The only exception to this rule is when you are washing items in a dishwasher that can safely rinse items after they have been sanitized. The dishwasher must meet these requirements.</p> <ul style="list-style-type: none"> • The cycle sanitizes items before they are rinsed. • The sanitizer is used according to the guidelines provided by the Environmental Protection Agency (EPA). 	<p>p. 11.9</p>	<p>p. 12-11</p>	<p>Unit III Food Safety Management Systems, Facilities, and Pest Management>>Cleaning and Sanitizing>>Dishwashing>> Manual Dishwashing Screen 3 of 6</p>
<p>The FDA recommends that mop water and other liquid waste not be thrown out in toilets or urinals.</p> <p>This information will be added to existing content.</p>	<p>Storing Cleaning Tools and Supplies</p> <p>To prevent contamination, NEVER dump mop water or other liquid waste into toilets or urinals.</p>	<p>p. 11.13</p>	<p>p. 12-15</p>	<p>Unit III Food Safety Management Systems, Facilities, and Pest Management >>Cleaning and Sanitizing >> Keeping Your Operation Clean and Sanitized>> Cleaning Tools and Supplies Screen 2 of 7</p>

Summary of the 2009 FDA Food Code change	The ServSafe Material will now state	Essentials	Coursebook	Manager Online
<p>The FDA has identified three new risk designations to be used by regulatory authorities when evaluating establishments: priority items, priority foundation items, and core items.</p> <p>This is a new topic.</p>	<p>The Inspection Process</p> <p>The FDA recommends that regulatory authorities use the following three risk designations when evaluating establishments. These replace the “critical” and “noncritical” risk designations recommended previously.</p> <ul style="list-style-type: none"> • Priority items • Priority foundation items • Core items <p><i>Priority items</i> are the most critical. These are actions and procedures that prevent, eliminate, or reduce hazards associated with foodborne illness to an acceptable level. Proper handwashing would be considered a priority item. <i>Priority foundation items</i> are those that support a priority item. Having soap at a handwashing sink is an example. <i>Core items</i> relate to general sanitation, the facility, equipment design, and general maintenance. Keeping equipment in good repair is an example.</p>	<p>p. 13.4</p>	<p>p. 14-6</p>	<p>Unit IV Food Safety Regulations and Employee Training >>Food Safety Regulations and Standards>> The Inspection Process >></p> <p>New topic—add to Inspections Screen 3 of 11</p>
<p>The FDA recommends adding “food allergy awareness” as a part of the food safety training of employees by the person in charge.</p> <p>This information will be added to existing content.</p>	<p>Critical Food Safety Knowledge</p> <p>It is critical to provide employees with knowledge of common food allergens and methods for preventing allergic reactions.</p>	<p>p. 14.3</p>	<p>p. 15-4</p>	<p>Unit IV Food Safety Regulations and Employee Training>>Employee Food Safety Training>> Training Staff >></p> <p>Topics for Training Screen 4 of 5</p>

Sanitizer Effectiveness Chart

The table below gives general guidelines for the effective use of chlorine, iodine, and quats.

General Guidelines for the Effective Use of Chlorine, Iodine, and Quats				
	Chlorine		Iodine	Quats
Water temperature	≥ 100°F (38°C)	≥ 75°F (24°C)	68°F (20°C)	75°F (24°C)
Water pH	≤ 10	≤ 8	≤ 5 or as per manufacturer's recommendation	As per manufacturer's recommendation
Water hardness	As per manufacturer's recommendations		As per manufacturer's recommendation	500 ppm or as per manufacturer's recommendation
Sanitizer concentration range	50-99 ppm	50-99 ppm	12.5-25 ppm	As per manufacturer's recommendation
Sanitizer contact time	≥ 7 sec	≥ 7 sec	≥ 30 sec	≥ 30 sec