

Fact	Source
30,000 people go to the emergency room each year in the U.S. due to food-induced allergic reactions	Food Allergen Labeling and Consumer Protection Act of 2004 (Public Law 108-282, Title II) <a href="http://www.fda.gov/Food/LabelingNutrition/FoodAllergensLabeling/GuidanceComplianceRegulatoryInformation/ucm106187.htm">http://www.fda.gov/Food/LabelingNutrition/FoodAllergensLabeling/GuidanceComplianceRegulatoryInformation/ucm106187.htm</a>
2,000 people are hospitalized each year in the U.S. due to food-induced allergic reactions	Food Allergen Labeling and Consumer Protection Act of 2004 (Public Law 108-282, Title II) <a href="http://www.fda.gov/Food/LabelingNutrition/FoodAllergensLabeling/GuidanceComplianceRegulatoryInformation/ucm106187.htm">http://www.fda.gov/Food/LabelingNutrition/FoodAllergensLabeling/GuidanceComplianceRegulatoryInformation/ucm106187.htm</a>
150 people die each year in the U.S. due to food-induced allergic reactions	Food Allergen Labeling and Consumer Protection Act of 2004 (Public Law 108-282, Title II) <a href="http://www.fda.gov/Food/LabelingNutrition/FoodAllergensLabeling/GuidanceComplianceRegulatoryInformation/ucm106187.htm">http://www.fda.gov/Food/LabelingNutrition/FoodAllergensLabeling/GuidanceComplianceRegulatoryInformation/ucm106187.htm</a>
1 in 25 adults and 1 in 17 children have food allergies	The Food Allergy & Anaphylaxis Network <a href="http://www.foodallergy.org/downloads/FoodAllergyFactsandStatistics.pdf">http://www.foodallergy.org/downloads/FoodAllergyFactsandStatistics.pdf</a>
Food allergies cannot be removed by heat, unless the allergy is specific to raw or undercooked fish	U.S. Department of Health and Human Services, National Institutes of Health; National Institute of Allergy and Infectious Diseases <a href="http://www3.niaid.nih.gov/topics/foodAllergy/PDF/foodallergy.pdf">http://www3.niaid.nih.gov/topics/foodAllergy/PDF/foodallergy.pdf</a>
In a recent study, 35% of restaurant operators believed fryer heat destroyed allergens	Annals of Allergy, Asthma and Immunology 2007, vol. 98, no. 4, pp. 344 - 348 <a href="http://oberon.annallergy.org/vl=643019/cl=20/nw=1/rpsv/cw/acaai/10811206/v98n4/s7/p344">http://oberon.annallergy.org/vl=643019/cl=20/nw=1/rpsv/cw/acaai/10811206/v98n4/s7/p344</a>
Grills should have a designated allergen free surface area and separate frying stations should be maintained for allergy-inducing foods	<i>ServSafe Essentials</i> , page 3.8 Iowa State University, Food Allergy Alert- <i>What Restaurant Managers Need to Know to Train Staff</i> <a href="http://www.extension.iastate.edu/Publications/PM2065.pdf">http://www.extension.iastate.edu/Publications/PM2065.pdf</a>
To prevent cross-contact, all pots and utensils should be cleaned and sanitized between uses	<i>ServSafe Essentials</i> , page 3.8 National Food Safety Education Month (NFSEM) 2008, Week 3 material
Unexpected allergens can be found in pre-packaged and outsourced foods such as egg substitutes. Sometimes egg substitutes contain small amounts of egg, and items such as veggie burgers and deli meats contain dairy.	The Culinary Institute of America <a href="http://www.ciaprochef.com/foodallergies/know_your_ingredients.html">http://www.ciaprochef.com/foodallergies/know_your_ingredients.html</a>
Foodhandlers should start fresh with a new wok for allergy related food orders, especially if they are not familiar with all ingredients used in sauces and marinades	<i>ServSafe Coursebook</i> , page 3.6 <i>ServSafe Essentials</i> , page 3.8

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<p>While most foodborne illnesses are caused by viruses, bacteria are also responsible for a large number of them.</p> <p><b>Rapid Bacterial Growth:</b></p> <table border="0"> <thead> <tr> <th data-bbox="235 289 516 317">Number of Cells</th> <th data-bbox="526 289 594 317">Time</th> </tr> </thead> <tbody> <tr> <td data-bbox="235 321 305 348">1 cell</td> <td data-bbox="526 321 643 348">0 minutes</td> </tr> <tr> <td data-bbox="235 352 315 380">2 cells</td> <td data-bbox="526 352 659 380">20 minutes</td> </tr> <tr> <td data-bbox="235 384 315 411">4 cells</td> <td data-bbox="526 384 659 411">40 minutes</td> </tr> <tr> <td data-bbox="235 415 315 443">8 cells</td> <td data-bbox="526 415 602 443">1 hour</td> </tr> <tr> <td data-bbox="235 447 329 474">16 cells</td> <td data-bbox="526 447 740 474">1 hour 20 minutes</td> </tr> <tr> <td data-bbox="235 478 350 506">&gt; 1 billion</td> <td data-bbox="526 478 630 506">10 hours</td> </tr> </tbody> </table> <p>Bacteria can double their population every twenty minutes.</p>	Number of Cells	Time	1 cell	0 minutes	2 cells	20 minutes	4 cells	40 minutes	8 cells	1 hour	16 cells	1 hour 20 minutes	> 1 billion	10 hours	<p><i>ServSafe Coursebook</i> page 2-11</p>
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<p>Some bacteria change into a different form, called spores, to keep from dying when they don't have enough food. They can change back and grow again when the food they are on has been time-temperature abused.</p>	<p><i>ServSafe Coursebook</i> page 2-10</p>														
<p>Receive frozen food frozen. Reject frozen food for the following reasons.</p> <ul style="list-style-type: none"> <li>• Fluids of frozen liquids appear in the case bottoms.</li> <li>• There are ice crystals on the product or the packaging. Or there are water stains on the packaging. This may be evidence of thawing and refreezing.</li> </ul>	<p><i>ServSafe Essentials</i> page 6.4</p>														
<p>Food must pass through the temperature range of 135°F to 70°F (57°C to 21°C) in two hours and then from 70°F to 41°F (21°C to 5°C) or lower in the next four hours. To cool food quickly, divide large quantities of hot food into smaller containers. There are a number of methods that can be used to cool food quickly and safely. These include:</p> <ul style="list-style-type: none"> <li>• Placing food in an ice-water bath</li> <li>• Stirring food with an ice paddle</li> <li>• Placing food in a blast chiller or tumble chiller</li> </ul>	<p><i>ServSafe Coursebook</i> page 8-18, 8-20</p> <p><i>ServSafe Essentials</i> page 7.14</p>														
<p>Freezing does not kill pathogens. When frozen food is thawed and exposed to the temperature danger zone, any pathogens in the food will begin to grow.</p>	<p><i>ServSafe Essentials</i> page 7.2</p>														
<p>One out of every four hamburgers turns brown before it has been cooked to a safe internal temperature.</p>	<p>Fightbac.org bacteria fact sheets (fact reference: USDA FSIS)</p>														
<p>The only way to reduce microorganisms in food to safe levels is to cook it to the required minimum internal temperature.</p>	<p><i>ServSafe Coursebook</i> page 8-9</p>														
<p>The most important tool you have to monitor temperature is the thermometer.</p>	<p><i>ServSafe Essentials</i> page 5.6</p>														

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<p>“People can become ill from a remarkably small amount of these viruses. To reinforce this point, Karen Gulley of the Cobb County Health Department in Georgia cited that it only takes 10 to 100 norovirus viral particles to make someone ill. By comparison, one gram of feces can contain up to 10,000,000 viral particles and one projectile vomiting incident can potentially contaminate the environment with 30,000,000 viral particles.”</p>	<p>Cited in <i>Food Safety RISK Review</i>, Special Edition: NRA/NRAEF Virus Conference, September 2007, Page 1. Link to download at <a href="http://www.servsafe.com/downloads/df/SSFS_Risk_Review.pdf">http://www.servsafe.com/downloads/df/SSFS_Risk_Review.pdf</a></p>
<p>The fingertips and the area under the nails harbor 80% to 90% of the bacteria on hands than can cause foodborne illness.</p>	<p><i>Nation's Restaurant News</i> article, March 16, 2009, titled “Guard against dangerous, costly food safety incidents with education and enforcement.” Reference to fingertips in the seventh paragraph. Link to article at <a href="http://www.nrn.com/article.aspx?keyword+%&amp;menu_id=1508&amp;id=364248">http://www.nrn.com/article.aspx?keyword+%&amp;menu_id=1508&amp;id=364248</a></p>
<p>Hand Antiseptics: Only use hand antiseptics after handwashing. NEVER use them in place of it. Wait for a hand antiseptic to dry before you touch food or equipment. Check your local regulatory requirements.</p>	<p><i>ServSafe Essentials</i>, page 4.6, section titled “Hand Antiseptics.”</p>
<p>Actions that can contaminate food:</p> <ul style="list-style-type: none"> <li>• Scratching the scalp</li> <li>• Running fingers through the hair</li> <li>• Wiping or touching the nose</li> <li>• Rubbing an ear</li> <li>• Touching a pimple or an infected wound</li> <li>• Wearing a dirty uniform</li> <li>• Coughing or sneezing into the hand</li> <li>• Spitting in the operation</li> </ul>	<p><i>ServSafe Essentials</i>, page 4.3, section titled “Actions that can contaminate food.”</p>
<p>The whole handwashing process should take about 20 seconds and includes scrubbing the hands and arms vigorously for 10 to 15 seconds.</p>	<p><i>ServSafe Essentials</i>, page 4.5, section titled “How to wash hands.”</p>
<p>Viruses can contaminate both food and water.</p>	<p><i>ServSafe Essentials</i>, page 2.7, section titled “Viruses.”</p>
<p>The FDA has identified poor personal hygiene as one of several key foodborne-illness risk factors.</p>	<p><i>FDA Report on the Occurrence of Foodborne Illness Risk Factors in Selected Institutional Foodservice, Restaurant, and Retail Food Store Facility Types</i>, 2004. Link to Report at <a href="http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/FoodborneIllnessandRiskFactorReduction/RetailFoodRiskFactorStudies/ucm089696.htm#execsum">http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/FoodborneIllnessandRiskFactorReduction/RetailFoodRiskFactorStudies/ucm089696.htm#execsum</a></p>