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## NF94-167 Clostridium perfringens

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## *Clostridium perfringens*

By Susan S. Sumner, Extension Food Microbiologist  
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- The Disease:** Symptoms of *Clostridium perfringens* gastroenteritis include abdominal pain, diarrhea and gas that occur within eight to 24 hours after eating a contaminated food and usually last about one day. Consumption of the vegetative form of the bacteria can cause these symptoms. A heat-resistant toxin can be produced by the bacteria which can also cause a foodborne illness.
- The Organism:** The bacteria, *Clostridium perfringens*, is anaerobic — it only grows where there is little or no oxygen. This bacteria can exist as a vegetative cell or in the dormant spore form. Thorough cooking (140°F) will kill the vegetative cells, but some spores may survive. At temperatures between 70°F and 120°F the spores can become vegetative cells and produce the toxin.
- Sources:** *Clostridium perfringens* bacteria are present in the soil, the intestines of humans and animals, and sewage. Any raw food may contain the spore or the bacteria.
- Control:** Thoroughly cook foods which contain meat and poultry (soups, stews, gravy, dressing, casseroles). Keep these cooked foods hot (at or above 140°F) or cold (at or below 40°F). Divide large portions of these foods into smaller portions for storage. Large containers of food take a long time for the center to cool to 40°F. This situation gives the bacteria the ideal conditions to grow rapidly. Reheat leftovers thoroughly (to at least 165°F) before serving. *Clostridium perfringens* is called the "food service germ" because it often causes illness from food served in quantity and left for long periods on a steam table or at room temperature.

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