



Clostridium perfringens Infection

What is *Clostridium perfringens* (*C. perfringens*)?

C. perfringens is an anaerobic (does not need oxygen to survive), spore-forming bacteria. This bacteria has several strains and can cause varying illnesses, ranging from mild to severe. *C. perfringens* is a common cause of foodborne illness.

How is it spread?

One way is by eating food that was contaminated with soil or feces (stool) and then not properly cooked, refrigerated or reheated. Most outbreaks are associated with inadequately heated or reheated meats, usually stews, meat pies and gravies made with beef, turkey or chicken. *C. perfringens* bacteria form spores that can survive normal cooking temperatures and grow during slow cooling, storage at room temperatures or inadequate reheating. Illness is caused by the release of toxins (poisons) by the spores in the lower intestines.

What are the symptoms?

C. perfringens infection is characterized by abdominal cramping and diarrhea starting eight to 22 hours after eating contaminated food. Nausea is common, but vomiting and fever are not. Illness usually lasts one day or less. Outbreaks of severe disease have been reported outside the United States.

How is it diagnosed?

Infection is diagnosed by detecting the bacteria in the stool of the ill person or in a sample of the suspected food.

How is it treated?

No treatment is usually needed for the diarrheal illness, due to its short duration.

How is it prevented?

Serve meat/poultry dishes hot (above 140°F) as soon as possible after cooking. If the dish will not be served immediately, cool rapidly and refrigerate until serving time. Divide stews, soups or large quantities of food into smaller containers to cool faster. Do not allow meat/poultry dishes to cool to room temperature before refrigerating. Cooling at room temperature will give the bacteria ample time to grow and multiply.

Do not partially cook meat or poultry one day and reheat the next day unless it can be stored at a safe temperature (41°F or below). Large cuts of meat/poultry must be thoroughly cooked and cooled safely.

Reheat any meat/poultry dish rapidly to an internal temperature of 165°F or higher. This will kill any bacteria that may have grown during the cooling process.

How does it affect my family?

Care should be taken to cook, serve, cool and reheat meat/poultry dishes properly. Proper handwashing should always be practiced.

Does this bacteria cause any other problems?

Clostridium infection may also cause gas gangrene tissue infections. If the site of a recent injury or surgery is infected with the *Clostridium* bacteria, the bacteria may begin to destroy the muscle and surrounding tissue (gangrene).

Gas gangrene tissue infection is diagnosed by the appearance at the site of the injury or surgery as well as by medical tests, such as an X-ray.

Gas gangrene tissue infection may be treated with intravenous antibiotics, oxygen therapy and removal of the diseased or dead tissue.

For more information call the Guilford County Department of Health and Human Services, Public Health Division at 336-641-7777, or visit our website at www.myguilford.com or visit the U.S. Food and Drug Administration website at www.fda.gov or Mayo Clinic at www.mayoclinic.com