

# Food-Borne Illness

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Most refer to food-borne illnesses as food poisoning, which caused by pathogenic bacteria, viruses, or parasites that contaminate food. According to the Center for Disease Control and Prevention's (CDC) website, [www.cdc.gov/foodsafety/](http://www.cdc.gov/foodsafety/), the most common food-borne infections are caused by the bacteria [Campylobacter](#), [Salmonella](#), and [E. coli O157:H7](#), and by a group of viruses called calicivirus, also known as the [Norwalk](#) and Norwalk-like viruses. An outbreak is the illness of a group of people who became sick by eating the same contaminated food. Most cases are mild and cause symptoms for only a day or two; however serious cases cause as many as 5,000 Americans deaths annually.

There is a delay from the time contaminated food is eaten before illness, which ranges from hours to days. Symptoms depend on the type of infection, but typically include, diarrhea, abdominal cramps, and nausea. Laboratory tests identify the type of infection if the ill seek medical attention, however many do not and even should they see a doctor, many times lab tests are not ordered. The CDC suggests that the actual incidence of infection is nearly 40 times diagnosed and reported incidence.

## Definitions:

**Foodborne Illness Outbreak** - an incident involving two or more unrelated individuals, living separately, and reporting similar symptoms or excreting the same pathogen, with a time or place association between them.

However, a single case of a rare disease such as botulism or mushroom poisoning is considered an outbreak. Contact OSEH at (734) 647-1142 to report suspected, apparent, confirmed, or exposed cases of foodborne illness or food contamination. Report any food service employee that may be infected with a gastro-intestinal or respiratory disease in a communicable form, who resists restriction, or who has an infected wound on a hand or arm but refuses to wear appropriate plastic gloves.

When a foodborne illness outbreak has been defined, OSEH will proceed by initiating a prompt epidemiological investigation using a task-oriented approach. Washtenaw County Department of Environmental Health will be consulted for additional resources and/or technical guidance, as necessary.

Investigation procedures will follow those outlined in the IAMFES *Procedures to Investigate Foodborne Illness* book utilizing the following outline:

1. Case History Interviews
  - a. Collect additional case history information to supplement any previously collected information.
  - b. All persons should be advised to seek medical attention if they have not already done so.

- a. If necessary, a UM Injury and Illness Report form may need to be submitted to UM Occupational Health. The form is located at <http://www.workconnections.umich.edu/pdf/iirf.pdf>
2. Evaluation of Food Service Facility
  - a. An inspection of the food service establishment will be conducted by interviewing food service personnel regarding food sources, preparation methods, storage, display, and transportation utilized at the time of the suspect meal.
  - b. Review the food handling practices, personal hygiene, equipment operation, pest control, illness reports, plumbing, proper waste disposal, and the water supply.
  - c. If possible, obtain an attendance list for the suspect meal.
3. Collection of Suspect Food
  - b. A sample of each food from the suspect meal, if available, should be collected for laboratory analysis of the suspected pathogen.
  - c. Samples should be clearly labeled, refrigerated at 41°F or below, and stored in a secure location to avoid accidental use.
4. Collection of Clinical Specimens:
  - a. OSEH will share pertinent investigation information to the medical personnel involved
  - b. Samples will be collected from exposed persons and food handlers based on professional judgment or when ordered by the Washtenaw County Medical Director.
5. Summary and Report Preparation
  - a. In accordance with the Michigan Food Law, Section 289.3129, OSEH will prepare a report summarizing the findings of the investigation, test results, and any corrective action necessary to protect the public health.
  - b. The report will be issued to the OSEH Director, director and management staff from the suspect food service establishment, WCDEH, MDA, and the CDC.

### **Updated**

August 8, 2011

### **Source**

Centers for Disease Control and Prevention

Michigan Department of Community Health

University of Michigan Health System

Washtenaw County Public Health Department

### **More Information**

[http://www.michigan.gov/mdch/0,1607,7-132-2940\\_2955\\_22779---,00.html](http://www.michigan.gov/mdch/0,1607,7-132-2940_2955_22779---,00.html)

<http://www.cdc.gov/>

<http://www.med.umich.edu/>

<http://publichealth.ewashtenaw.org>

## Prevention / Mitigation / Preparedness - Food-Borne Illness

Precautions from the CDC website's Frequently Asked Questions page:

**COOK** meat, poultry and eggs thoroughly. Using a thermometer to measure the internal temperature of meat is a good way to be sure that it is cooked sufficiently to kill bacteria. For example, ground beef should be cooked to an internal temperature of 160o F. Eggs should be cooked until the yolk is firm.

**SEPARATE:** Don't cross-contaminate one food with another. Avoid cross-contaminating foods by washing hands, utensils, and cutting boards after they have been in contact with raw meat or poultry and before they touch another food. Put cooked meat on a clean platter, rather back on one that held the raw meat.

**CHILL:** Refrigerate leftovers promptly. Bacteria can grow quickly at room temperature, so refrigerate leftover foods if they are not going to be eaten within 4 hours. Large volumes of food will cool more quickly if they are divided into several shallow containers for refrigeration.

**CLEAN:** Wash produce. Rinse fresh fruits and vegetables in running tap water to remove visible dirt and grime. Remove and discard the outermost leaves of a head of lettuce or cabbage. Because bacteria can grow well on the cut surface of fruit or vegetable, be careful not to contaminate these foods while slicing them up on the cutting board, and avoid leaving cut produce at room temperature for many hours. Don't be a source of food borne illness yourself. Wash your hands with soap and water before preparing food. Avoid preparing food for others if you yourself have a diarrheal illness. Changing a baby's diaper while preparing food is a bad idea that can easily spread illness.

**REPORT:** Report suspected food borne illnesses to the University OSEH department (647-1143). OSEH is an important part of the food safety system. Often calls from concerned citizens are how outbreaks are first detected. If OSEH contacts you to find out more about an illness you had, your cooperation is important. In public health investigations, it can be as important to talk to healthy people as to ill people. Your cooperation may be needed even if you are not ill.

Establish a three deep system of personnel located at the building and provide training on how to handle such an event

Determine how information on the event will be obtained and then delivered to building occupants.

Procedures should be considered for an area in the building that may need to be closed / quarantined for extended investigation or sanitation purposes

## Response - Food-Borne Illness

There are many different kinds of food borne diseases and they may require different treatments, depending on the symptoms they cause.

A health care provider should be consulted for a diarrheal illness is accompanied by the following:

1. High fever (temperature over 101.5 F, measured orally)
2. Blood in the stools
3. Prolonged vomiting that prevents keeping liquids down (which can lead to dehydration)
4. Signs of dehydration, including a decrease in urination, a dry mouth and throat, and feeling dizzy when standing up.
5. Diarrheal illness that lasts more than 3 days

Diarrhea or vomiting can lead to dehydration if the person loses more body fluids and salts (electrolytes) than they take in. If diarrhea is severe, drink Ceralyte, Pedialyte, or Oralyte to replace the fluid losses and prevent dehydration. Sports drinks such as Gatorade do not replace the losses correctly.

If diarrhea and cramps occur, without bloody stools or fever, taking preparations of bismuth subsalicylate (e.g., Pepto-Bismol) may provide symptomatic relief, but avoid these medications if there is high fever or blood in the stools because they may make the illness worse.

Contact 911 to request medical assistance

Designate an individual to meet emergency responders and help direct them to where the ill person(s) is in the building.

## **Recovery - Food-Borne Illness**

Depending on the extent of the event, ensure that a prioritization sequence has been established in which essential services and key activities will be restored within the affected area.

Contact the University Risk Management department (734) 764-2200 so claims management and other insurance matters can be handled.

Contact OSEH to determine if the facility has been cleared to return to normal operation status.