

Class Starters & Enders

Making the Most of Instructional Time Five Minute Lessons

Class Starters and Enders help utilize the last minutes of class when a lesson ends but there is not enough time to start another, or for an interest approach at the beginning of class. Mini-lessons correlate to GPS in the programs areas below.

Foodborne Illness

Program Areas: Culinary Arts, Family and Consumer Sciences, Healthcare, and Agriculture

Instructions: Read the material and make notes of important points, answer questions and be ready to discuss this topic.

The last time you came down with a “stomach bug,” it very easily could have been a mild case of a foodborne illness. The CDC reports an estimated 76 million cases of foodborne illness in the US every year. Even though most of these cases are minor, some can be a lot more serious. Foodborne illness lands an estimated 325,000 people in the hospital each year and leaves 5,000 people dead.



Foodborne illness can be caused by improperly cooked meats.

What exactly is a foodborne illness? A foodborne illness is any illness caused by consuming contaminated food or drink. The contamination mainly occurs from bacteria, viruses or parasites, but it can also come from traces of chemicals left in the food product. The CDC estimates over 250 foodborne illnesses, but the most well-known include **Campylobacter**, **Salmonella**, **E. coli O157:H7**, **Norwalk-like viruses** (or *Calicivirus*), and **Botulism**.

Campylobacter is a bacterial foodborne illness generally caused by eating undercooked meat (especially poultry). Once a person is infected, the symptoms are fever, diarrhea, and abdominal cramps. Other common foodborne illnesses caused by bacteria include *Salmonella* and *E. coli O157:H7*. The bacterium that causes *Salmonella* is generally found in the intestines of reptiles, poultry and other mammals. The symptoms are somewhat similar to *Campylobacter*; however, they can be especially dangerous for people with weakened immune systems. Unlike *Campylobacter* and *Salmonella*, symptoms of *E. coli O157:H7* generally do not include a high fever. When *E. coli O157:H7* infects humans, it is usually due to microscopic amounts of cow feces contaminating the food or water. Finally, *Botulism*, a rare but very serious foodborne illness is also caused by bacteria.

Most foodborne illnesses are caused by bacteria, but some are caused by viruses. The most common foodborne illnesses caused by a virus are *Norwalk-like viruses*. They are rarely diagnosed and are believed to be caused by the virus spreading from one infected person to another. This means that if the person preparing the food has the virus, and does not use proper hygiene measures, they can spread it to other people through the food they are handling.

While the symptoms of foodborne illnesses can be serious, these illnesses can usually be avoided by taking simple precautions. By simply maintaining good hygiene (i.e. washing hands, cleaning up after cooking, etc.) and ensuring meat is cooked to the recommended temperature, the chances of contracting a foodborne illness can be greatly reduced.

Review Questions

1. Are there more minor or serious cases of foodborne illness every year?
2. What is a foodborne illness?
3. Name three microbes that can cause a foodborne illness.
4. About how many types of foodborne illnesses are there?
5. Two main types of foodborne illnesses that can be contracted by improper handling of poultry are: _____ and _____.
6. *Salmonella* is especially dangerous for people with _____ immune systems.
7. How do the symptoms of *E. coli O157:H7* differ from *Campylobacter* and *Salmonella*?
8. What is one rare but very serious foodborne illness?
9. How are *Norwalk-like viruses* spread?
10. How can foodborne illness be prevented?

Name	% of Cases Reported	Caused by:
Campylobacter	14.2	Bacteria
Salmonella	9.7	Bacteria
E. coli O157:H7	0.13	Bacteria
Botulism	<0.1	Bacteria
Norwalk-like viruses	66.6	Virus
Various Other Illnesses	About 10	Bacteria, Virus, or Parasites

Math Connection

In the US, 76 million people get a foodborne illness each year. The US population is about 309 million. What percent of people in the US get a foodborne illness each year?

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