Nonprofit Safety Hero

Foodborne Illness Highlights Reel

In order to understand foodborne illness, we have to talk about the foodborne illness formula. Specifically, there are some bad characters out there that can cause harm.

The technical term for these characters is pathogens. When you put pathogens together with food and add certain environmental issues, such as moisture, temperature, or cross contamination, and then multiply that over time, you have a risky situation. Let's talk about each element of the foodborne illness formula, starting with pathogens.

Pathogens fall into three main categories. First, bacteria, such as Salmonella. Shigella, E. coli, and staph. The next category includes the viruses. We all know coronavirus. We can add norovirus and hepatitis A to the list. And then there are parasites, such as Giardia, Trichonella, and Cyclospora. These are the three categories of pathogens that we are most concerned about.

You might think you can identify these pathogens by smelling them or seeing them. But pathogens are sneaky and invisible. They don't emit odors or taste funny, so you can't rely on your senses to find these bad characters. The second element of foodborne illness formula is simply food. You work with different kinds of food and some are more hazardous than others.

Foods that are typically hazardous include dairy products, meat, Seafood and eggs, herbs in oil, cut melon, cut tomatoes, and cut leafy greens. If you take a dry product and add moisture, it becomes a hazardous food. So we need to add cooked rice, cooked beans, and cooked vegetables to the list of potentially hazardous foods.

Next, we'll talk about environmental issues. There are three main environmental issues to focus on. Temperature, moisture, and cross contamination. Let's start with temperature. There are some foods that need special attention in terms of temperature. They're called Temperature Control for Safety Foods, or TCS.

They include dairy products, meat, seafood, and eggs. These foods must be kept within a certain temperature range to maintain safety. The next environmental issue is moisture, which we've already mentioned. It impacts rice, beans, potatoes, or vegetables as soon as we begin to cook them.

The third environmental issue is cross contamination. We have to prevent leaks and handle and store food separately. We're going to talk more about that in a minute. So we've talked about pathogens, plus food, plus environmental issues. Now let's talk about time. Various pathogens take longer to

incubate, and their effects last for different amounts of time. So a foodborne illness is not always caused by the last food you ate. If you feel bad in the afternoon, it might not be that snack you just had, but something you ate for breakfast.

Food borne microorganisms are capable of doubling every 20 minutes. It can take four hours for microorganisms to grow enough to make someone sick. These factors, pathogens plus food plus environmental issues, multiplied by time, create risky situations. What does that mean? In the short term. A risky situation could be nausea, vomiting, diarrhea, and fever.

Many of us have experienced food poisoning or a foodborne illness that makes us sick. It is no fun. But foodborne illnesses can also cause long term complications, such as kidney damage, arthritis, bowel disease, birth defects, neurological damage, and even death. The good news is that now you know the foodborne illness formula.

There are simple actions you can take to keep the people you serve healthy. Take a moment to reflect on which element of the foodborne illness formula you would like to spend more time on.