EPISODE 34 - Health Inspections and Food Borne Illnesses

Transcript

If you decide to work in a kitchen whether you work at an acute care hospital or long term care facility, if you're a director of food and nutrition services or a clinical nutrition manager with some kitchen oversight, or maybe you work in catering and hospitality, chances are, you'll need to have additional training in food safety. It may vary depending where you live. I've always had to have a Serve Safe certificate. When I took the classes, there were a lot of different people there. From restaurant owners, restaurant employees, bartenders, food service managers, dietitians, certified dietary managers….basically anyone working with food was there. Even though I've been a dietitian for many years before I became Serve Safe certified, it was still eye opening. See, this is the thing. Dietitians specialize. For many years, I specialized in clinical and in different areas of clinical. So clinical itself wasn't my speciality. Nutrition Support and then pediatrics with all the clinics I covered became my specialty. Food certainly wasn't. And it wasn't until I stepped into management that I had to deal with food. So there's learning and growth opportunities whenever you're looking for one.

Food safety is so important because food can cause harm. We know it has healing properties but when not handled properly, it can be dangerous and sometimes even deadly. This is why you have to know about food for the exam and when working as a dietitian because you're seen as the expert when it comes to food. And you are!

[Music and Intro]

Hey there. In this episode, I thought I'd walk you through a health inspection I participated in. Maybe if you visualize it and get a play by play, it might ease your anxiety. We feel anxious at times when it's the unknown. So if I can normalize it a little or at least share a little about what they look like so you have an idea, it might take away some of the unknown. The point of a health inspection is to make sure food is safe and that facilities are following food code. And since the goal is to serve safe food, I'm also gonna talk about food borne illnesses because they're a likely topic you'll be asked about on the exam. But more than that, you should know these things. Not that I want you to be food paranoid but because awareness of safety protocols should be on your radar. Because you're a dietitian, THE nutrition expert and that means food safety too.

And the truth is, since the purpose of a health inspection is to make sure food is safe so people don't get sick, it just makes sense for me to talk about food borne illnesses in this episode too. They just go hand in hand.

But before we get started, I have a super special shout out today. Jacqueline Atwood passed the RD exam. She was one of my intern so I got to know her well. She did a wonderful job as an intern. And this episode is perfect to celebrate her because she was amazing in her food service rotation. She worked so hard and I'm so proud of her. Congratulations Jackie. Welcome to the RD community my friend.

Ok. So I'm gonna start with how it might look when and if a health inspector shows up at your door. Every facility may have a different protocol and it may vary state by state but the basics of what they look at are the same. And the reasons for it. So I wanted to share how it went and some of the steps that took place.

So we'd been notified the health department was here for their usual inspection. Once the inspection started, hair nets of course in place before entering the kitchen and hands washed, the inspector went straight to checking temperatures of foods that were being held in hold holding area on tray line. Remember, there's a temperature danger zone that we want to avoid. That temperature range is 41-135 degrees Fahrenheit which means food must be stored below 41 degrees and above 135 degrees. A lot of places just use the range 40-140 since it's easier for staff to remember. And food is safe in that range. 40 is below 41 degrees and 140 is above 135 degrees. When food sits in the temperature danger zone, the risk of bacteria growing in the food increases which is where food problems occur and where the risk of someone getting a food borne illness increases. So we don't want food hanging out at that temperature. After checking the temperatures of the food held on the serving station, she then went to the cold foods section and the refrigerators. Now, refrigerators should always be monitored to make sure they don't get out of range. So whether or not they're on a monitoring system that notifies you if the temperatures are out of range or the staff are regularly checking the temperatures, you should know the temperatures of the refrigerators and freezers. Usually, for consistency, checking temperatures should be written on the job tasks so whoever is doing a particular job knows what to check and when. Remember, storage and receiving are part of your HACCP plan and making sure food is held and kept at the right temperature so the inspector is basically checking this "plan" and the critical control points.

Ok. So in addition to checking the temperatures, the inspector also checked the foods and expiration dates of foods in the refrigerators and freezers. And not just the packaged items. The prepared foods were checked to make sure they were labeled and dated and stored on the right shelves. Remember, the way food is stored matters. Ready to eat foods are stored on the top shelf and poultry is on the very last or bottom shelf because it needs to be cooked to the highest internal temperature which is 165 degrees. This is the easiest thing to pass and is what is sometimes called "low hanging fruit" so be sure to check for expired product. This not only includes fresh food but also dry goods like canned goods. So make sure expiration dates are checked regularly and have a process in place.

So once all the temps were checked and expiration dates of foods were scanned, the health inspector went to the dish machine and checked the temperature log for the dish machine. You need to make sure the dish machine temps are checked because you can't assume the dishes are being washed at the right temperature to kill the bug unless you know for sure the dish machine is reaching the right temperature. You can't just trust the dial and the temperature reading on the machine. You have to validate the temperature and make sure it's accurate. The wash temperature should be 165 degrees and the sanitizing temperature if using heat should be 180 degrees. In my experience, this is another low hanging fruit. I participated in a survey once and the surveyor asked to see the temperature logs for 3 months to check for any missing temperatures on the temperature logs. And keep in mind that dry lapping is a big no-no. That's when people fill in the temperatures without checking. As a dietitian, you'll more likely be on the management side when it comes to kitchen or food service operations so be sure to stay on top of temperatures. All temperatures. First and foremost, keeping food and washing equipment at the right temperature is what keeps people safe. And it's also a guarantee surveyors will check these things when they do an inspection.

So on top of the dish machine, kitchens often have a 3 compartment sink. Keep in mind there are many different types of kitchens and kitchen layouts. So during this inspection, the 3 compartment sink was the next stop for the inspector. The 3 compartments of the 3 compartment sink are the wash sink, rinse sink, and sanitize sink. The wash temp should be at least 110 degree Fahrenheit and the sanitizing solution should be at the right concentration. You want to be aware of the manufactures guidelines for the sanitizer. Again, these temperatures should be recorded AND staff need to be able to answer the inspectors questions. Especially during Joint Commission surveys. They're likely to ask the staff questions about processes in the kitchen. And the sanitizer should be tested using pH strips.

So moving on to the grill and hood system in the kitchens. The hood systems need to be cleaned. I talk about fire safety in episode 15. Grease splatters and can accumulate in random places and residue can accumulate in the hood system above the grill so they need to be cleaned. There should be a cleaning schedule in place where the hood system is cleaned and residue is removed. And the cleaning schedule as well as any maintenance done in the kitchen should be documented in case someone asks to see the records.

The inspector then checked the dry storage areas to look at expiration dates, storage practices, making sure storage racks are off the floor. And the right distance from the ceiling. Reminder, it would be 18 inches from the ceiling for places with sprinklers so the sprinklers can work properly if there's a fire. And lastly, hand washing sinks need to be available and should NOT be used for produce washing or meal prep. There needs to be a dedicated sink just for hand washing.

So this is what an inspection or survey might look like or at least some of the areas of the kitchen they'll look at. Remember they might request to look at repairs done in the kitchen and maintenance on the equipment. Also keep in mind, things break. It happens to everyone but the action items and follow through matter. You just have to be able to speak to it.

Ok. That's a lot. That shows you what an inspection might look like. So let's go over why all this matters. Because inspections aren't for fun. I don't think for anyone - the inspector or the employees working in the kitchen being inspected. The goal for all this is to help prevent people from getting sick. We don't want people to get sick and we want to serve them good, safe food. That's why we're here. Whether you work in a restaurant, hospital, long-term care facility, sports arena, basically anywhere food is served. The goal is for people to enjoy good, safe food. At least, I hope that's the goal. So let's go over some of the food borne illnesses.

Let's start with pathogens you should be aware. Remember, these pathogens cause disease. When the toxins or pathogens in the food are consumed, that pathogen enters the body through the GI tract.

I'm gonna start with the clostridium because there's 2 of them: Clostridium botulinum which is more commonly known as botulism and clostridium perfringens. Both the clostridium toxins are anaerobic. What does anaerobic mean again? Well, anaerobic means no oxygen so these pathogens don't require oxygen for growth.
Botulism or clostridium botulinum is found when canning practices aren't followed properly. This is why you have to check canned foods. If the can is misshaped - Say the lid is bulging or maybe there's a dint in the can especially along the seams - the food shouldn't be eaten. And honey should never be given to a baby. Babies don't have the immune system to fight botulism and since honey is a source of botulism, it shouldn't be given to them. Even in very small quantities. Just don't give babies honey. It's also found in the intestinal tract of humans and animals as well as soil and water. I've actually seen a couple patients with botulism. The symptoms include weakness, paralysis of the central nervous system, fatigue, slurred speak, and can even lead to death. The patients often need tube feeding if they're unable to swallow. So this is a big concern and food should be monitored to avoid and prevent this pathogen from causing disease. Last point I want to make is that it's resistant to heat but acid will kill botulism spores.

So clostridium perfringens is found on the surface of meat and in the intestinal tract of humans and animals. It can cause the more typical symptoms associated with what we call food poisoning which is nausea, vomiting, diarrhea and stomach or abdominal pain. This pathogen is prevented by doing all the things I like to think are "typical and standard" food safe handling practices such as keeping food out of the temperature danger zone. So

that means holding food below 40 degrees and above 140 degrees. Also, reheating food must reach 165 degrees. The way I remember this is that chicken and poultry needs to be cooked to the highest temperature which happens to be 165 degrees. So when reheating food, I always think “what’s the highest temperature a food item needs to be cooked at?” Which is 165 so that means any food being reheated, I just imagine in my head it has poultry and therefore should be cooked to 165 degrees. So that’s heating, cooking and reheating. But what about cooling. Well, there is a process that needs to be followed when cooling food. Food needs to be cooled to 70 degrees within 2 hours and then cooled down to 40 degrees or below within the next 4 hours. I share a story in a previous episode about how a surveyor threw out all the pot roast during a kitchen inspection at one of the hospitals I was at. Well, the issue was that the temperatures in the cooling process hadn’t been taken so the surveyor said all the food was unsafe and threw it all out in the trash. So cooling is just as important as heating, reheating and cooking. Pathogens grow the fastest in temperatures between 70-125 degrees Fahrenheit which is why it’s important to cool food to 70 degrees within the first 2 hours. And like anything in the kitchen and when handling food, hand washing is so, so important. That’s the best way to prevent spreading disease.

Ok so let’s move on to staph aureus or staphylococcus aureus which is carried in humans in the intestines, cuts, sores, in the nose and on hands. It can enter the body through cuts and handling contaminated surfaces with staph aureus. It’s important for food to be kept out of the temperature danger zone to prevent rapid growth. Foods that are particularly risky for spreading staphylococcus aureus are meat, poultry, eggs, and dairy products. Washing hands is one of the best way to prevent the spread and contamination of staph aureus. If infection occurs, symptoms are nausea, vomiting, diarrhea, and abdominal pain. Unlike salmonella, people with staph aureus infection don’t have fever.

Let’s go over some food borne infections.

Salmonella’s a fairly well known food borne illness. It's found in foods such as raw or undercooked eggs, meat, poultry, raw dairy products, seafood, and melons. It’s also found in the intestinal tract of human and animals and is happy in low acidic foods. Room temperature is a happy place for salmonella to grow which is right in the temperature danger zone. One of the best way to prevent salmonella is to make sure any foods that are known to potentially carry salmonella aren’t near ready-to-eat foods which is why poultry for example should be stored on the bottom shelf. So cross contamination should be avoided. This is with any food. Cross contamination is a concern. This is why we should use different cutting boards and keep ready to eat food away from food that needs to be prepared. Also, hand washing is important. Onset of symptoms can happen quickly after consuming contaminated food. Symptoms are nausea, vomiting, chills, headache and a fever and onset is anywhere from

6-48 hours and can last several days. The symptoms are similar to the flu so sometimes people may think they caught a virus but it could be salmonella.

Let's talk abut Shigella which is found on bare hands, contaminated water with feces and can be spread by flies. So the way to help prevent this toxin is to control flies around food, wash hands and avoid contaminated food and water. Symptoms can start within a day or two after ingestion. Someone may experience abdominal pain and bloody diarrhea. Foods associated with shigella are tuna, potato and chicken salad, macaroni, raw veggies and melon. These foods are sometimes called TCS foods. TCS meaning Time/Temperature Control for Safety. So these foods should pass through the temperature danger zone as quickly as possible in order to avoid contamination.

The next toxin is e.coli or escherichia coli which can cause abdominal cramps and bloody diarrhea. It's found in the intestinal tract of cattle and is linked to raw and undercooked ground beef. It's also been known to spread through contaminated food such as vegetables that came in contact with the toxin through contaminated water. It can live in the intestinal tract for a while. Symptoms might not start for a few days after ingestion of the toxin. This toxin is a stubborn toxin and isn't killed through freezing or acidity. So it's really important raw and ground beef is cooked fully in order to prevent the illness and contamination.

Listeria is another food borne illness to be aware of. This is the infection pregnant women need to be particularly concerned about since it can severely harm the growing fetus. Foods to be aware of are deli meats, soft cheeses, raw unpasteurized milk, and coleslaw. The symptoms are similar to the flu and can start within a couple days after ingestion.

Ok so let's go over 2 more viruses that can be spread through food. One is Norovirus which I often think of when I think of cruises. There've been norovirus outbreaks on cruise ships in the past. It's spreads through infected people handling food. So it's found in human feces spread through infected water, ready to eat food, and contaminated shellfish. Symptoms include nausea, diarrhea, and vomiting. Only a small amount of norovirus is needed to make someone sick and it's also contagious.

And the other virus I want to review is Hepatitis A which is primarily found in feces of infected people and in contaminated shellfish. Cooking doesn't kill Hepatitis A so the best way to prevent spreading Hepatitis A is by keeping infected individuals away from food preparation areas and purchasing shellfish from approved, reputable sources.

Whew. That's a lot. But remember, the best way to prevent food borne illness is to keep sick people away from food preparation, prevent food from sitting in the temperature danger zone which is 40 to 140 degrees, prevent cross contamination and washing hands using soap and water, lathering with friction for 20 seconds. And keep in mind that people handling food should wear disposable gloves when handling food and frequently changing them to prevent cross contamination. Let's do a quick review or summary of some of the food born illnesses. Staphylococcus aureus has a fast onset of a few hours and can cause flu-like symptoms, but not typically a fever. Clostridium botulinum and clostridium perfringens are both anaerobic food born illnesses. Botulism has a slow onset and attacks the the central nervous system and can be deadly if not treated fast enough. Also, honey should never be given to babies because they can get botulism from the honey. Salmonella is spread through uncooked animal foods such as poultry, eggs, and meat and can also be found in raw produce. Norovirus and Hepatitis A are spread from infected people. Norovirus is contagious and both viruses can be spread from contaminated shellfish. And lastly, e. coli is spread from raw or undercooked ground beef as well as contaminated produce.

It's a lot of information but you've got this. Stay on top of your study game. There's no limits to achieving the success you so deeply desire. Until next time.

[Music and Outro]