

E. COLI O157:H7: CONTAMINATION OF FRESH PRODUCE

It's every foodservice establishment's worst nightmare – a food-borne illness outbreak traced back to your restaurant. For one major fast food chain, that's exactly what happened during the fall of 2006 in several of their restaurants in the Northeast.

The culprit was the pathogen E. coli O157:H7 and the most likely food vehicle was shredded lettuce

contaminated before it reached the restaurant. Seventy-one people were affected by the outbreak with 75% requiring hospitalization and 11% developing a type of kidney failure called hemolytic-uremic syndrome (HUS).

So what is E. coli O157:H7? Why is E. coli O157:H7 a growing problem in fresh vegetables? What can I do to prevent an outbreak?



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RESERVED FOR TAKE-OUT CUSTOMERS

Restaurants are reserving a front row parking spot for their customers, but it's not for their full service patrons. Parking in this designated spot is short term and for customers who are picking up their "to-go" menu orders.

More and more restaurants are catering to take-out diners.

With non-stop, hectic schedules, consumers continually look for options of quick and easy, great tasting meals. Restaurant take-out can provide that alternative to fast food, pizza and microwave dinners.

When preparing take-out orders, your staff needs to follow the

same food safety principles and food handling procedures that they use everyday to keep food safe. Consumers rely on you to prepare safe, great tasting food. Along with making sure your staff is preparing food safely, you also need to be concerned that the customer is handling their take-out

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MANAGING FOOD SAFETY RISKS



The responsibility of providing safe food is shared by many people; the company/farmer that manufactures or grows the food, the vendor who sells the food, the restaurant owner, the food service workers and finally, the consumer. As a food service manager, you want to control any risk factors that might make food you serve

cause one or more of your customers to get a food borne illness.

To manage food safety risks, focus your efforts on achieving Active Managerial Control. The Food and Drug Administration describes Active Managerial Control (AMC) as "the industry's responsibility

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What is E. coli O157:H7?

There are hundreds of strains of the E. coli bacterium – most of which are harmless - found in the intestine of both animals and humans. However, one strain – E. coli O157:H7 – causes a life-threatening illness in humans by producing large quantities of a potent toxin that can severely damage the lining of the intestine.

E. coli O157:H7 illness begins two to eight days after consuming the bacteria. Symptoms include severe abdominal cramping and diarrhea which begins watery but becomes bloody. Occasionally vomiting occurs and a low-grade fever. Complications, such as hemolytic-uremic syndrome which can lead to kidney failure, is most likely to occur in high risk groups such as young children under 5

year of age and older adults.

Why is E. coli O157:H7 a growing problem in fresh vegetables?

When first discovered in 1982, E. coli O157:H7 outbreaks occurred primarily from contaminated and undercooked ground beef. However, since that time outbreaks have implicated alfalfa sprouts, unpasteurized fruit juices, dry-cured salami, lettuce, game meat, cheese curds, raw milk and water.

Fresh fruits and vegetables can be contaminated by anything that touches it at any point along the flow of food - from the farm to the table. The major source of pathogens is animal or human feces. For example, fresh vegetables may be in contact with untreated manure on the farm or an infected worker who has not

washed his/her hands when it is harvested or packed.

In ground beef, E. coli O157:H7 is killed by cooking to at least 155° F. for 15 seconds. Many fruits and vegetables are eaten raw or lightly cooked. So in the absence of this kill step, preventing potential contamination of produce is vitally important to the food industry!

For more information on E. coli O157:H7 go to:

- US Food and Drug Administration's Bad Bug Book - <http://vm.cfsan.fda.gov/~mow/intro.html>
- Department of Health and Human Services, Centers for Disease Control and Prevention - http://www.cdc.gov/ncidod/dbmd/diseaseinfo/escherichiacoli_g.htm

How to Prevent an Outbreak of E. coli O157:H7

- ✓ Make sure all food safety regulations are followed.
- ✓ Make sure employees are trained in personal hygiene and recommended food safety practices.
- ✓ Carefully examine fresh produce when you receive it and make sure it is at the proper temperature for the item. For example, fresh cut produce must be at 41° F. or lower.
- ✓ Accept only high quality produce and refrigerate away from raw meat, poultry, and seafood to avoid cross contamination.
- ✓ Be sure to wash all raw fruits and vegetables in running water before cutting, combining with other ingredients, cooking, or serving in ready-to-eat form.
- ✓ Produce labeled "ready-to-eat," "washed" or "triple washed" does not need to be washed.
- ✓ Clean and sanitize all food-contact surfaces, equipment, and utensils before and after contact with produce.
- ✓ Wash hands thoroughly before and after cutting or handling produce.



RESERVED FOR TAKE-OUT CUSTOMERS *Continued from page 1*

dinner safely.

Most take-out foods are eaten immediately. But sometimes, prepared or ready-to-eat foods are purchased to be eaten later. Customers also bring home the "doggie bag" of leftovers for a future meal. If these perishable foods are not handled safely, the consumer could get foodborne illness, and your restaurant could be blamed for the illness.

Food safety guidelines for consumers are different from food service. Consumers should eat hot take-out food within **two**

hours of preparation instead of the four hours for foodservice.

If the hot food is to be eaten later, place the food in a shallow container, cover and place in the refrigerator immediately. Most foods can be stored in the refrigerator 3 to 4 days. Leftover take-out can also be frozen. Wrap food tightly to preserve the best quality.

Consumers need to reheat leftovers to a temperature of 165°F or until hot and steaming. When reheating in the microwave, cover food and rotate so it heats evenly. Stir soups and stews. Let

food stand two minutes to allow thorough heating.

The two hour rule for consumers also applies to cold foods. Cold foods should be held at 40°F or colder. If food has been at room temperature for more than two hours, discard. For temperatures over 90°F, discard after one hour.

To educate consumers, you can write a quick note on containers or use food safety stickers. The web resources listed below have customer fact sheets and resources for food safety stickers.

TAKE OUT WEBSITE MENU

- ☛ <http://www.fsis.usda.gov/oa/pubs/takeoutfoods.pdf>
- ☛ http://www.fsis.usda.gov/Fact_Sheets/Safe_Handling_Take-Out_Foods/index.asp
- ☛ <http://www.fda.gov/womens/getthefacts/restaurants.html>
- ☛ http://www.pueblo.gsa.gov/cic_text/health/eatingout-safely/eatingout-safely.pdf
- ☛ <http://www.fightbac.org/content/view/89/2/>
- ☛ <http://www.fightbac.org/content/view/99/10/>
- ☛ <http://www.mhef.org/store/foodsafety/productfolder.2005-08-28.2782783922/>
- ☛ <http://www.nraef.org/nfsem/1998/carryout.html>



MANAGING FOOD SAFETY RISKS *Continued from page 1*

for developing and implementing food safety management systems to prevent, eliminate or reduce the occurrence of food borne illness risk factors”.

Some elements that make AMC more effective include; the presence of a certified food protection manager, developing and following standard operating procedures designed to keep food safe, using recipes that contain food safety critical limits, purchasing specifications for food products and equipment, monitoring procedures, adequate record keeping, employee health policies followed by all, regular training for all employees that reinforces the notion that food must be safe at all time and having a specific goal oriented plans to control food borne illness risk factors.



Like a more involved HACCP plan, AMC means that someone in the establishment is constantly making sure that the food being prepared and served is safe and that employees are aware of their role in this task. Since all aspects of food service can be at risk, AMC involves looking at food from the time it arrives at your establish-

ment until the customer eats it. As a manager your must recognize your part as a food safety role model for all your employees. That means you wash your hands whenever you enter a food preparation area of the establishment. You need to be aware not to touch food that is ready to serve to a customer. You should follow safe thermometer use and be careful not to contaminate clean and sanitized food contact surfaces as you make your way through the your establishment.

By involving your staff as an integral part of a food safety team, it lets everyone know that their role in providing safe food. As you conduct an assessment of your establishment, your equipment, your menu and your staff, identify what foods are most at risk to cause a food borne illness. Then focus your efforts on making those foods safe. Some questions for all involved to consider include:

- Why does a specific hazard or risk exist?
- What is to be controlled?
- Who will be responsible for that control?
- Where will it be controlled?
- When will it be controlled?
- How will it be controlled?
- What steps will be taken if the risk is out of control or cannot be controlled?

As you answer those questions, be willing to make changes in your

establishment and follow through to make sure those changes actually result in safer food being prepared and served to everyone.



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