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## For Consumers

### Eating Defensively: Food Safety Advice for Persons with AIDS

#### Bacteria and Food Poisoning

"It must have been something I ate!" How many times do people say this following about of nausea, upset stomach, cramps, diarrhea, or vomiting?

Indeed, these can be the symptoms of food poisoning--illness caused by eating food on which harmful bacteria have grown. The bacteria that cause food poisoning are difficult to detect by a food's appearance, taste or smell. But they can cause illness ranging from mild to very severe and even life-threatening. The human body ordinarily is well-equipped to deal with these bacteria, but individuals with weakened immune systems--such as those with acquired immune deficiency syndrome (AIDS) and those infected with the human immunodeficiency virus (HIV)--can be far greater risk of serious illness. Because of their weakened immune systems, these individuals are more susceptible to contracting a foodborne illness. Once contracted, these infections, with their severe vomiting and diarrhea, can be difficult to treat and they can come back again and again. This can further weaken the immune system and hasten the progression of HIV infection and be fatal for person with AIDS.

Since most foodborne illnesses result from improper handling of food, person with AIDS or HIV infection can help themselves by following basic food safety guidelines. Applying these guidelines when buying, preparing and storing food, along with having a basic knowledge of the most common harmful bacteria and the foods on which they are found or can grow, can allow persons with AIDS to eat defensively while choosing a nutritious diet.

People cannot get AIDS from food. The food safety advice in this brochure is intended to help persons with HIV infection to reduce the risk of food poisoning, thereby avoiding an illness that could worsen their condition or even cause death. While many kinds of bacteria can cause food poisoning, three are the most prevalent threat to persons with AIDS and HIV infections. These are: Campylobacter, Listeria and Salmonella.

The symptoms of Campylobacter infection (campylobacteriosis) include acute abdominal pain, diarrhea (which can be watery and contain blood), nausea, headache, muscle pain, and fever. Symptoms can begin to 5 days after eating contaminated food and generally lasts 7 to 10 days. Campylobacter bacteria are most commonly found in raw or undercooked poultry, unpasteurized milk, and non-chlorinated water.

Listeriosis, the disease caused by Listeria, is characterized by flu-like symptoms of chills, fever and headache, sometimes accompanied by nausea and vomiting. These early symptoms can appear 2 to 30 days after exposure and can be followed by bacteremia (a bloodstream infection), meningitis (an inflammation of the membranes covering the spinal cord and brain), or encephalitis (an inflammation of the membranes of the brain itself). Foods found to contain Listeria are unpasteurized milk and cheeses, raw or undercooked meat, poultry, and fish.

Salmonellosis is the illness that can develop from eating foods containing Salmonella bacteria. It is characterized by flu-like symptoms, possibly accompanied by nausea, vomiting, abdominal cramps, and diarrhea. Symptoms can develop 6 to 48 hours after exposure and last up to a week. Foods most often associated with salmonellosis include raw or undercooked meat, poultry, fish, and eggs.

#### Shopping for Food

For persons with AIDS, it is especially important to read food labels to select foods that pose the least risk of food poisoning. For example, all milk and cheese products should have the word "pasteurized" on the label. Products that contain any raw or undercooked meat or dairy products should be avoided, as well as products with a "sell by" or "best used by" date that has passed.

It is a good idea to put packaged meat, poultry or fish into plastic bag before placing it in the shopping cart. This prevents drippings from coming in contact with other foods and thus reduces the risks of cross-

contamination--bacteria from one food contaminating another food.

The sale of food products with damaged packaging, the unsafe displaying of products (such as cooked shrimp on the same bed of ice as raw seafood), workers with poor personal hygiene, and unsanitary store conditions can add to the risk of foodborne illness. Not only should consumers avoid purchasing food products sold under such conditions, but the conditions should be reported to local health authorities.

After shopping, get chilled and frozen foods into refrigerator or freezer as soon as possible. Storing them in a warm car or office or even just carrying them around for a couple of hours can raise the foods' temperature enough to allow bacteria to grow.

### **At Home**

Most cases of food poisoning are caused by improper food handling or preparation in the home. Keeping shelves, counter tops, refrigerators, freezers, utensils, sponges, and towels clean is one of the best ways to prevent bacterial contamination of food at home. It is especially important to wash all utensils and your hands with soap and hot water after handling one food and before handling another. This helps prevent cross-contamination in which, for example bacteria in raw meat could be transferred to other foods, such as salads or vegetables. For the same reason, wooden cutting boards should not be used for cutting raw meat, poultry or fish. Plastic boards are easier to clean and sanitize. Fresh fruits and vegetables should be thoroughly washed with water and refrigerated to reduce spoilage. the temperature in a refrigerator should be maintained at or below 40 deg F and food should be stored in covered containers.

Properly cooking food is another important guard against food poisoning. Heat kills bacteria. Most cookbooks give appropriate cooking times and temperature for different foods. A meat thermometer should be used to ensure complete cooking. Cook red meat until it is well done and poultry until the juices run clear. Thoroughly reheat leftovers (165 deg F).

Never eat raw eggs or foods that contain them. Pasteurized eggs should be used in place of shell eggs when making homemade ice cream, eggnog and mayonnaise. If you can't obtain pasteurized eggs, then you must omit the egg ingredient when making homemade ice cream. When cooking eggs, make sure that the yolk and white are firm, not runny. Here are cooking times and temperatures:

- Scrambled-1 minute at medium stove top setting (250 deg F for electric frying pans).
- Sunnyside-7 minutes at medium setting (250 deg F) or cook covered 4 minutes at 250 deg F.
- Fried, over easy-3 minutes at medium setting (250 deg F) on one side, then turn and fry for another minute on the other side.
- Poached-5 minutes in boiling water.
- Boiled-7 minutes in boiling water.

Microwave cooking requires special precautions. Most microwave recipes include a "standing time" after the cooking period to ensure that a proper temperature is reached throughout the food. Also, many microwave dishes must be removed from the oven and stirred from time to time-again, ensuring thorough cooking. It is particularly important to heat pre-cooked foods or leftovers thoroughly, whether in a microwave or conventional oven.

### **Eating Out**

Restaurants, like grocery stores, are required to follow sanitation guideline established by state and local health departments to ensure cleanliness and good hygiene. Persons with AIDS need to avoid the same foods in restaurants that they would at home. Always order food well-done; if it served medium to rare, send it back. A good way to determine doneness is to cut into the center of a steak, hamburger, or other piece of meat. If it is the least bit pink or bloody, it needs more cooking. Fish should be flaky, not rubbery,

when cut.

Order fried eggs cooked on both sides instead of sunny side up, and avoid scrambled eggs that look runny. Caesar salad should also be avoided since it contains raw eggs. If unsure about the ingredients in a particular dish, ask before ordering.

Raw seafood poses a serious risk of food poisoning for persons with AIDS. Raw shellfish, like raw meat and poultry, should be assumed to harbor harmful bacteria. Oysters on the half shell, raw clams, sushi and sashimi should not be eaten. Lightly steamed seafood, such as mussels and snails, should be avoided.

## Traveling Abroad

Not all countries have the same high standards of hygiene and sanitation as the United States, so persons with AIDS should take additional precautions when traveling abroad.

Boil all water before drinking. Drink only beverages made with boiled water or canned or carbonated bottled drinks. Ice, too, should be made only from boiled water. Avoid uncooked vegetables and salads. All fruit should be peeled. Eat cooked foods while they are still hot.

A good rule of thumb is "Boil it, cook it, peel it, or forget it."

While food poisoning can usually be treated with rest and plenty fluids until solid food can be eaten again, persons with AIDS or HIV infection may experience prolonged and more serious symptoms requiring a doctor's care.

If a consumer or doctor believes that an attack of food poisoning was related to a particular food or restaurant, the local health department or the Food and Drug Administration should be contacted. Reporting the incident to health officials can help others avoid serious illness. The telephone number for FDA's Emergency Operations Branch is 301-443-1240 (this number is staffed 24 hours a day).

These food safety guidelines for persons with AIDS and HIV infection are no different than those recommended for anyone. But, in the case of persons with AIDS or HIV infection, contaminated food can have more serious consequences.

There are other high-risk groups--such as cancer patients, diabetics, transplant recipients, infants, pregnant women, and the elderly--who should also give special attention to those guidelines. For individuals in these high-risk groups, maintaining a nutritious diet is of great importance. Cooking and eating defensively need not interfere with a nutritious diet. But not being aware of the hazards and not taking appropriate steps to reduce the risk food poisoning can be life-threatening.

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