

briefs

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Food Safety

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Summer Food Safety

— by Melissa Bardsley

Cases of foodborne illness increase in the summer for two reasons. First, most foodborne bacteria thrive and reproduce quickly at temperatures from 90 to 110° F. Second, warmer weather is more conducive to outside activities such as picnics and barbecues. These outdoor events do not lend themselves to the same food safety controls that the kitchen offers.

The following steps are from the Fight BAC!™ campaign and Partnership for Food Safety Education at www.fightbac.org.

Seven Super Steps for Safe Food in the Summertime

During the summer months, it is important to take extra precautions and practice safe food handling when preparing perishable foods such as meat, poultry, seafood and egg products. Warmer weather conditions may be ideal for outdoor picnics and barbecues but they also provide a perfect environment for bacteria and other pathogens in food to multiply rapidly and cause foodborne illness. Follow the suggestions below to Fight BAC!™ (foodborne bacteria) to reduce the risk of foodborne illness this summer.

1. Wash, Wash, Wash Your Hands

Always wash your hands with warm, soapy water before and after handling food.

2. Marinating Mandate

When marinating foods for long periods of time, keep them

refrigerated. Don't use sauce that was used to marinate raw meat or poultry on cooked food. Boil used marinade before applying to cooked food.

3. Hot, Hot, Hot!!

When grilling foods, preheat the coals on your grill for 20 to 30 minutes, or until the coals are lightly coated with ash.



4. Temperature Gauge

Use a meat thermometer to insure that food reaches a safe internal temperature.

5. Where's the Beef? Chicken and Fish?

Cook hamburgers to 160° F, and large cuts of beef such as roasts and steaks to 145° F for medium rare or 160° F for medium. Cook ground poultry to 165° F and poultry parts to 170° F. Fish should be opaque and flake easily.

6. Stay Away from that Same Old Plate

When taking foods off the grill, do not put cooked food items back on the same plate that previously held raw food.

7. Icebox Etiquette

A full cooler maintains its cold temperatures longer than one that is partially filled, so pack plenty of extra ice or freezer packs to insure a constant cold temperature.

— Melissa Bardsley, M.S., R.D., C.D.E., is an associate specialist for Colorado State University Cooperative Extension.

Emerging Trends in Foodborne Illness—Short Term Illness with Long Term Consequences

— by Melissa Bardsley

Burgers to sprouts—there are few risk-free foods. Any food has the potential for bacterial contamination that can lead to foodborne illness. While foodborne illnesses are often temporary, they can result in hospitalization, long-term disability or death. The economic and social consequences of foodborne disease in relation to health care costs and loss of work productivity is significant. Estimated costs of hospitalizations due to foodborne illnesses are over \$3 billion each year in the United States and over \$43 million in Colorado. The yearly cost of lost productivity is estimated between \$20 and \$40 billion in the U.S. and \$292 to \$584 million in Colorado.¹

The actual number of foodborne illnesses occurring in the United States is unknown.² The Centers for Disease Control and Prevention (CDC) estimated that in 1997, foodborne contaminants caused approximately 76 million illnesses, 325,000 hospitalizations, and 5,000 deaths in the United States.³ These estimates assume that because most cases of foodborne illness are mild and/or short-lived and are difficult to trace back to a particular food, only 1 to 5 percent of actual cases are reported each year and even fewer are investigated.²

In 1998, 38 outbreaks of foodborne illness potentially affecting 956 people were investigated in Colorado. This yielded an approximate foodborne illness rate of 23.6 cases per 100,000 people. For states involved in FoodNet (Foodborne Diseases Active Surveillance Network), a program that actively as-

esses reported cases of foodborne illness, the preliminary foodborne illness incidence rate for 1999 was 40.7 cases per 100,000 people.⁴ Clearly, an active surveillance results in more cases reported and investigated.

The 1999 FoodNet report summarizes data from seven states (California, Connecticut, Georgia, Minnesota, Oregon, New York, and Maryland). Colorado joined the network in January 2000 and will contribute surveillance data beginning in January 2001. The Colorado site includes selected counties in the Denver metropolitan area, representing 48 percent of the state's population.

Public health officials continue to be concerned about foodborne illness. Many feel that certain issues and trends may make foodborne illness more of a problem in the years to come. According to the Healthy People 2010 Initiative, emerging pathogens, improper food preparation, storage and distribution practices, insufficient training of retail employees, an increasingly global food supply and an increase in the number of people at risk because of aging and compromised capacity to fight these diseases may all play an important role in foodborne illness trends.⁵

The hazard of foodborne illness originating from mishandled food is an issue in any location where food is available to consumers. This risk is especially important when hazardous food is served in group settings to older people, young children, or individuals with compromised immune systems. As



more children are kept in child-care homes and centers, and a growing segment of the population experiences compromised immune sys-

tems through aging, medical intervention and illness, protecting high-risk individuals will become more significant.⁶

— Melissa Bardsley, M.S., R.D., C.D.E., is an associate specialist for Colorado State University Cooperative Extension.

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Keeping Food Safe in Day Care Settings

—by Pat Kendall

Foodborne illness can strike anyone, but infants and children are especially susceptible. Because of their immature immune systems, preschool children are particularly prone to foodborne and other infectious diseases.

It has been estimated that children have a one in three chance of contracting a diarrheal illness each year. Attending day care increases that risk by 30 percent. Incidence is highest in those centers where diapering is combined with food preparation or service. When hands and surface areas are not properly washed and sanitized after diapering, fecal bacteria are transferred to food during preparation and service.

Although any microorganism can find its way into a day care or home setting, five pathogens have particular importance in outbreaks of foodborne illness affecting children in day care. These include *Shigella*, *Giardia lamblia*, *Cryptosporidium parvum*, Hepatitis A, and *E. coli* O157:H7.

Shigella, a bacteria that causes diarrhea, fever, abdominal pain and bloody stools, is transmitted by infected people to others through fecal contamination directly or through food or water. Some 15,000 to 20,000 cases of shigellosis, also known as bacillary dysentery, are reported each year in the United States, mostly among children under the age of 4.

Giardiasis, an infection caused by the waterborne parasite *Giardia lamblia*, spreads easily between adults and children in day care or baby-sitting situations when hands are not properly washed after diaper changes.

Cryptosporidium parvum is a parasitic protozoan, spread through fecal contamination, that causes mild to severe watery diarrhea.

When ingested, cysts carrying the protozoa migrate to the small intestine where they cause illness. Infants and persons with AIDS are particularly vulnerable. The disease, known as cryptosporidiosis, is most often associated with child care centers.

Infectious hepatitis is a disease of the liver caused by the Hepatitis A virus. Tracking and control of the disease is complicated by the fact that infants and young children may show few or no symptoms, yet serve as carriers of the disease. Frequent hand washing and sanitizing of diaper change areas and toys or other objects that go into children's mouths are essential components of prevention. If a case or outbreak of Hepatitis A occurs in a day care home or center, the center should seek medical advice to treat those who may be exposed and prevent further spread of the disease.

First recognized in 1982, *E. coli* O157:H7 found in undercooked hamburgers served by a fast-food restaurant in the Northwest caused three deaths and more than 600 cases of bloody diarrhea among children under 8 years in 1993. Other sources of outbreaks have included such foods as raw milk, sprouts, unpasteurized apple juice and contaminated water. As in one case in Washington, the disease also can be passed between children through poor hygiene and diapering practices. *E. coli* O157:H7 is easily destroyed by cooking. For safety's sake, test hamburgers with a thermometer to assure they have been cooked to 160° F throughout, especially if you are serving them to young children or elderly people.

Safe food handling is our first line of defense in preventing foodborne illness. Here are some safe food handling tips for parents and day care providers.



For Parents:

- Pour formula or breast milk into bottles or liners labeled with your child's name. Cap and refrigerate. Place in the center refrigerator immediately upon arrival.
- Make sure any perishable foods brought from home for lunch or snacks are refrigerated upon arrival.
- As soon as your child can understand, stress hand washing after toileting and before eating.

For Day Care Providers:

- Wash hands with soap and warm water for 20 seconds before handling food and after using the bathroom, changing diapers, handling raw meat or poultry, touching animals, smoking, coughing or sneezing into your hand or blowing your nose.
- Separate diapering from food handling and preparation activities.
- Make sure children wash hands after toileting or messy play and before eating.
- Only accept sealed bottles of formula or breast milk labeled with the child's name.
- Place half-consumed bottles back in the refrigerator directly after feeding. Discard any leftover bottle contents (milk, water or juice) that have been unrefrigerated for more than two hours.
- Regularly sanitize those items children touch—especially ones that go into the mouth.
- Serve home-prepared food only to the child whose parent sent it, and if it is properly covered and refrigerated. The food should look safe and wholesome. CAUTION: Never taste or give a child suspect food.
- Don't let children share food or utensils. Discard food left on plates.

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Invitation to dialogue

What issues and concerns would you like to see addressed?

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*Opinions expressed herein are not necessarily those of the
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**Coming next:
Child Care**