



Food Safety

Food Safety CURRENT NEWS

It's Summer! Grill it Safe!

Ahhh summer! Time to fire up the barbecue grill and let the backyard chef cook up a summer-time feast. However, backyard chefs beware! Research conducted by the National Cancer Institute (NCI) on muscle meats such as beef, pork, poultry, and fish showed that cooking meat on the grill could create chemicals called heterocyclic amines (HCAs) when the meat is cooked at high temperatures. This could increase the risk of cancer.

What are HCAs? HCAs are carcinogenic chemicals that form during the cooking of muscle meats from a reaction of amino acids (building blocks of protein) and creatine (a chemical found in muscles) at high temperatures. There can be as many as 17 different HCAs that form during

cooking that may pose a cancer risk. Further studies have shown that people who ate their beef medium-well or well done, had more than three times the risk of getting stomach cancer than those who ate their beef rare or medium-rare.

What factors influence HCA formation? There are four: type of food, cooking method, temperature, and time. Temperature is the most important factor. Cooking methods such as frying, broiling or barbecuing produce the highest amount of HCAs because of high cooking temperatures of 392° to 482° F. Lower levels of HCAs form during oven roasting and baking. Almost negligible amounts of HCAs form during stewing, boiling, or poaching.

So should you stop grilling meat? No! See the section called "Ready to Grill? Here Are Some Tips." Another way to grill safely

is to create a barrier between the coals and the meat by using aluminum foil. This reduces flames from the charcoal that can char the meat. Also, increasing the distance between the charcoal and the meat will reduce the chance of charring.

Source:
http://www2.cancer.org/zine/dsp_StoryIndex.cfm?se=001_07021999_0

http://www2.cancwe.org/ezineCFML/dsp_StoryIndex.cfm?fr=002_01281999_0

http://cis.nci.nih.gov/fact/3_25.htm



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June 27-28, 2000
Serving Safe Food
Lansing, KS
Contact: Denise Sullivan
913-684-0475

June 27-28, 2000
Serving Safe Food
Ottawa, KS
Contact: Rebecca Dillard
785-229-3520

July 10-11, 2000
Serving Safe Food
Wichita, KS
Contact: Teresa Lang
316-722-7721

July 12 & 19, 2000
Serving Safe Food
Salina, KS
Contact: Sherrie Mahoney
785-826-6645

Upcoming Events

Aug. 15-16, 2000
Serving Safe Food
Overland Park, KS
Contact: Nada Thoden
913-764-6300

Aug. 23 & 30, 2000
Serving Safe Food
Junction City, KS
Contact: Donna Martinson
785-238-4161

Aug. 24 & 31, 2000
Serving Safe Food
Parsons, KS
Contact: Jean Rowland
316-784-5337

Other Events
July 6-14, 2000
Gala 20th International Workshop
Rapid Methods and Automation in
Microbiology
Call Hall, KSU
Contact: KSU Div. Of Cont. Ed.
785-532-5569

September 2000
Food Safety Education Month
<http://www.foodsafetycouncil.org/>

For Meat and Food Processors

One Day Workshops on HACCP,
GMP's and Sanitation
June 5, 2000 - Lincoln, NE
June 28, 2000 - Kansas City, MO
July 12, 2000 - St. Louis, MO
August 24, 2000 - Brookings, SD

Three Day Workshops on HACCP,
GMP's and Sanitation
July 25-27, 2000 - St. Louis, MO
August 1-3, 2000 - Lincoln, NE
Contact:
Mark Murphy, KSU - 1-877-205-8345
Jason Mann, UNL - 1-888-688-4346

Honey and Infant Botulism An "avoidable risk"

The FDA recommends not feeding honey or products containing honey to infants less than one year old. Doing so will prevent the onset of infant botulism which results from ingesting *Clostridium botulinum* in honey. Once a child has passed age one, their intestinal systems have more microflora developed to combat the effects of *C. botulinum*.

Studies have shown that the minimum infective dose has not been established for infant botulism. As far as food safety is concerned, there is no tolerance for the presence of *C. botulinum* in any foods. There have been some instances of the same illness in adults, but primarily in those whose intestinal microflora has been weakened by chemotherapy and antibiotic therapy.

According to the CDC, infant botulism is the most common form of botulism reported in the U.S. since 1980. The *C. botulinum* spores colonize in the intestine and produce this toxin inside the intestines. In foodborne botulism, the toxin is consumed. Symptoms of infant botulism include constipation, general weakness, weak cry, feeding difficulty, poor sucking, lethargy, lack of facial expression, irritability, and progressive "floppiness." Respiratory arrest can frequently occur, but it is rarely fatal. Between 1976 and 1996, 1,442 cases from 46 states were reported. Of those, 7 cases were in Kansas. The CDC also reports that not all infant botulism cases were a direct result of ingesting honey. Other sources of the spores included corn syrup, soil and vacuum cleaner dust.

Source: Food Microbiology Fundamentals and Frontiers, Doyle, M.P., Beuchat, L.R., Montville,

Food Safety RESEARCH

Food Recall — What does it mean?

Consumer awareness of food safety heightens each time a food recall is announced on the news. There are various reasons for a food recall including wrong ingredient, foreign material contamination, and bacterial contamination.

A food recall occurs voluntarily by the manufacturer or distributor to remove products that may result in health problems or death. Recalls for meat and poultry are regulated by the USDA Food Safety Inspection Service (FSIS). FSIS also inspects pasteurized egg products. The FDA then regulates the safety of these and all other food products.

The purpose of a recall is to remove adulterated or misbranded products from commerce. If a meat product passed FSIS inspection, it could still be recalled if new information indicates a health hazard. All companies to date voluntarily recall products when requested

by FSIS. If they refuse, FSIS will detain or seize the product.

Problems are discovered in several ways: the company may inform FSIS of a problem; FSIS, through their sampling program, may discover a problem; or FSIS inspectors may discover labeling problems during inspections. Consumers or other agencies may report problems. From these discoveries, a preliminary investigation is conducted to see if a recall is truly necessary. This involves collecting samples, reviewing documentation, interviewing consumers, and contacting inspectors, state and local health departments.

FSIS works with a standing Recall Committee to quickly and effectively remove the suspect product from commerce. This committee evaluates the situation and classifies the recall as Class I, Class II, or Class III. For each recall, a press release and

a Recall Notification Report (RNR) notify the public. The RNR provides detailed information for the reason of the recall. The RNR is sent to food safety and public officials at the federal, state and local levels.

To ensure all product is recalled, "effectiveness checks" are conducted to retrieve all product in accordance to regulatory requirements. Once all product is removed from commerce, the company is notified in writing and the recall is complete.

For more information contact:

FSIS Recall Information Center Web site: www.fsis.usda.gov/OA/recalls/rec_intr.htm
Meat and Poultry Hotline 1-800-535-4555 or mphotline.fsis@usda.gov
FDA Center for Food Safety and Applied Nutrition's Outreach and Information Center 1-888-SAFEFOOD (1-888-723-3366)

Glossary

Adulterated – Injurious to health or unfit for human consumption.

Misbranded – False or misleading labeling and/or packaging.

Class I Recall – Reasonable probability that eating the food will cause health problems or death. Example: *E. coli*/O157:H7 in raw ground beef.

Class II Recall – Remote probability that adverse health consequences will occur from eating the food. Example: Allergen present and not on label.

Class III Recall – No adverse health consequences will occur. Example: Water added to processed meat and not on label.

Another Summer Reminder...

Along with grilling safely, there are a few simple steps to help prevent foodborne illness during these warm months. The Centers for Disease Control and Prevention (CDC) reports between 1996 and 1998, a marked increase in foodborne illness cases during June through August. Why? There are two main reasons.

First, natural causes. Bacteria are present in the environment. During the summer, bacteria will grow faster because of temperatures between 90 to 110° F. Also, because of higher humidity, this moisture encourages bacterial growth.

Second, "people" causes. The increase of outside activities such as picnics, barbecues, and camping decreases the availability of kitchens to provide a clean, safe environment. Fortunately,

most people have healthy immune systems to protect them from getting sick due to contaminated food or harmful organisms in the environment.

Here are four simple steps to provide safe summertime meals:

1. Clean: Wash Hands and Surfaces Often.

This is a primary cause of foodborne illness. If possible, use hot soapy water to wash hands. If not available, use clean, wet, disposable washcloths and paper towels.

2. Separate: Don't Cross-Contaminate.

Keep raw and ready-to-eat foods separate. This includes the utensils used to prepare and serve these foods.

3. Cook: Cook to Proper Temperatures

Use a thermometer to check meat temperatures. Grilled meats brown quickly so internal tem-

peratures must be checked. Be sure to cook all meats completely for picnics.

4. Chill: Refrigerate Promptly

Keep cold perishable foods in insulated coolers with ice, ice packs, or containers of frozen water. Keep the coolers out of the sun and replenish ice often. If take-out foods are part of the picnic, plan to eat it within two hours. If this is not possible, plan ahead and chill in the refrigerator before leaving home.

Got Leftovers? In the outdoors at 90°F, food should not be left out over one hour. As soon as the picnic meal is over, put the perishable food back on ice to keep it safe.

Source:
<http://www.fsis.usda.gov:80/OA/pubs/illpeaks.htm>

September 2000 is National Food Safety Education Month

The International Food Safety Council sponsors this event. It emphasizes food safety education and training in all areas of the food industry. This year's theme is, "Be Smart. Keeps Foods Apart—Don't Cross-Contaminate." Emphasis will be placed on how cross-contamination spreads illness-causing bacteria from one food to another. An example of cross-contamination is cutting raw meat or fish on a cutting board and then cutting salad vegetables on the same cutting board without washing it.

Another example is carrying raw meat on a plate to a charcoal broiler, then putting the meat on the same plate after cooking it. Research shows that cross-contamination is a contributing factor in many foodborne disease outbreaks. More information will be distributed in June and July to promote this important food safety information. If you are an educator, plan ahead to incorporate this information into your Food Safety education program. The web site for the International Food Safety Council is <http://www.foodsafetycouncil.org/>