



# Food Safety

NEWS

Food Safety CURRENT NEWS

## The State of Home Food Safety

### On the Web

#### Food Safety Education Month

[www.fsis.usda.gov/oa/educator/educator6-2a.htm](http://www.fsis.usda.gov/oa/educator/educator6-2a.htm)  
[www.restaurant.org/nfsem/](http://www.restaurant.org/nfsem/)  
[www.fsis.usda.gov/OA/consedu.htm](http://www.fsis.usda.gov/OA/consedu.htm)

#### Government sites

[www.fda.gov/opacom/factsheets/justthefacts/](http://www.fda.gov/opacom/factsheets/justthefacts/)  
[www.fsis.usda.gov/OA/pubs/facts\\_basics.htm](http://www.fsis.usda.gov/OA/pubs/facts_basics.htm)  
[www.fsis.usda.gov/oa/pubs/parasite.htm](http://www.fsis.usda.gov/oa/pubs/parasite.htm)  
[www.foodsafety.gov/](http://www.foodsafety.gov/)  
[www.fsis.usda.gov/oa/pubs/consumerpubs.htm](http://www.fsis.usda.gov/oa/pubs/consumerpubs.htm)

#### Eggs

[www.aeb.org/](http://www.aeb.org/)  
[www.fsis.usda.gov/oa/topics/eggsafe.htm](http://www.fsis.usda.gov/oa/topics/eggsafe.htm)

#### Produce Facts

[www.aboutproduce.com/](http://www.aboutproduce.com/)  
[www.foodsafety.gov/~fsg/produce.html](http://www.foodsafety.gov/~fsg/produce.html)

#### Food Allergy

[www.cfsan.fda.gov/~dms/whalrgy.html](http://www.cfsan.fda.gov/~dms/whalrgy.html)  
[www.fda.gov/opacom/backgrounders/foodlabel/newlabel.html](http://www.fda.gov/opacom/backgrounders/foodlabel/newlabel.html)

Do you remember the last time you had a stomachache? What was your initial thought? Was it "Where did I last eat out?" Most media reports are of foodborne illness outbreaks from restaurants. But what about what you last ate at home? In 1997, Audits International (A.I.) started the Home Food Safety Study (HFSS) to evaluate food-handling practices in homes across North America. In this first study, they found only four out of 106 participants met acceptable standards in home food preparation. This clearly shows that the public cannot blame foodborne illness solely on food service operations.

In A.I.'s 1999 survey, they found that lack of education was the main reason for participants to use unsafe food practices. In 2000, they decided to distinguish between education and awareness.

The study consisted of 115 households in 74 cities. On-site observations were done for meal preparation, service, cleanup and handling leftovers. Observations included temperature taking practices, storage and rotation practices, hot and cold ingredient

preparation, holding, sanitation and chemical storage, personal practices, and kitchen condition. Violations were noted as critical or major. To be critical, it causes foodborne illness by itself. To be major, it contributes to causing foodborne illness. An acceptable rating was given for no critical violations and no more than four major violations.

Only 24% of the households received an acceptable rating. The average was 1.6 critical violations and 2.7 major violations. In comparison to the two previous studies, there was a sharp decrease in the number of households

claiming to take more food safety precautions. This could be due to less negative food safety information from the media. There was also a sharp decrease in cross-contamination violations, now the third most common violation behind neglecting handwashing and improper food preparation techniques.

Auditors asked the participants if they knew they committed a violation. Their responses were classified into three categories of education, awareness, and motivation. Of violators, 40% were not educated in the food safety principle, 40% were not aware of the practice, and 20% did not

■ See HOME Page 2

### USDA Food Safety Web Site

The USDA recently launched a new Web site for food safety research programs. It includes information on food safety research projects, spending, and accomplishments by U.S. Federal agencies, along with links to other important food safety research information.

The searchable database provides information on nearly 500 food safety research projects dating from 1998 to the present including research done or funded by: USDA Agricultural Research Service; USDA Cooperative State Research, Education, and Extension Service; the Food Safety Consortium (researchers from the University of Arkansas, Iowa State University, and Kansas State University); and the U.S. Department of Health and Human Services' Food and Drug Administration.

Also on the Web site are:

- program and planning information, as well as various food safety reports,
- food safety news and information,
- and more than 100 links to Web-based food safety research information provided by U.S. and foreign governments, and educational and professional organizations.

The Web site is located at [www.nal.usda.gov/fsrio/](http://www.nal.usda.gov/fsrio/)

## FAQs

**Question:** How safe is homemade ice cream?

**Answer:** The main concern is making homemade ice cream with raw eggs because of possible contamination of *Salmonella*. Raw eggs should be cooked in a custard base before making ice cream. Other options in place of raw eggs include pasteurized eggs, egg substitutes or no eggs at all. There are some suggestions at these web sites...

[www.exnet.iastate.edu/Publications/N3274.pdf](http://www.exnet.iastate.edu/Publications/N3274.pdf)

[lancaster.unl.edu/factsheets/100.htm](http://lancaster.unl.edu/factsheets/100.htm)

**Question:** How safe is honey that has been stored in a 1 gallon jug for 10 years?

**Answer:** According to the manufacturers of Sue Bee Honey, honey will keep indefinitely if properly stored in a sealed container. Honey may darken with age, granulate or develop a stronger flavor, but it doesn't spoil. Honey should be stored in an airtight container at 70° to 80°F out of direct sunlight.

**Question:** Why are chicken bones dark? Is the chicken safe to consume?

**Answer:** Chicken bones are dark red because, just as in humans, the bones are where red blood cells are manufactured. You may have noticed that when chicken is cooked in a gas oven or on a grill, the meat surrounding the bones is sometimes pink even though it is thoroughly cooked. This is due to heme leaching from the bones and into the meat where it reacts with carbon monoxide, a by-product of gas combustion or burning charcoal. It is perfectly safe to eat. The heme has a tendency to leach out because the chickens processed these days are very young (6 weeks old) so the bones have not fully calcified. Again, from a safety standpoint, as long as the internal temperature is appropriate, the meat is safe to eat.

## Cheese Storage Tips

There are many different types of cheese on the market today. In fact, an estimated 4,000 varieties are consumed worldwide. Cheese varies in fat and moisture content as well as “age” of the cheese.

High moisture cheese, e.g. cottage cheese, is consumed soon after manufacture. Cheddar, Swiss and parmesan have lower moisture contents and are “aged” for 4 to 12 months. Cheese can be classified by appearance. Blue, Brie or Camembert are greatly appreciated and enjoyed for their flavors, textures and appearance, which are partly produced by the mold growth. This mold does not produce toxins and can be consumed by most people.

Camembert and Brie cheeses possess surface coats of tan-whitish mold. Another classification is processed vs. natural cheese. Processed cheeses contain salt and other compounds that allow for homogenous melting and delicate flavor.

Whether the cheese is aged or not, it is not retailed until it is ready to be consumed. For instance, a mild cheddar cheese is aged for 4 months and then cut and packaged for retail sales; but an extra sharp cheddar cheese is aged for

10 to 12 months and then cut and packaged for retail sales. Once a cheese has been sold, it should be consumed within a short period of time. The exception is processed cheese, which may be stable longer as long as the packaging has not been compromised.

For the most part, all but some processed cheese should be kept refrigerated. To maintain quality, cheese is sold in airtight and moisture-proof packaging to prevent unwanted mold growth and moisture loss. Air may encourage the growth of undesirable mold on cheese such as cheddar, mozzarella, etc. To protect against mold growth, handle cheese in a clean environment and use new packaging when storing leftovers.

There are many types of cheese, and storage procedures vary. Here are some tips to maximize storage life of opened cheese. Re-wrap tightly the unused portion in plastic wrap, waxed paper or foil. Place in an airtight container to prevent growth of unwanted mold and moisture loss.

Each variety should be wrapped and stored individually because odors and flavors may transmit from one variety to the other. Place properly wrapped cheese in the bottom

compartment of the refrigerator where minimum airflow occurs. Cheese will pick up odors and flavors from other refrigerated foods.

If the cheese is in its original vacuum packaged container, it will keep for about 2 months at 30 to 40°F. If the package has been opened, shelf life will be much shorter. Hard cheese can last up to a month or more in a refrigerator depending upon the storage temperature and conditions. Soft cheese, such as Brie, Camembert and Blue may only last 1 to 3 weeks. Shredded, hard cheese such as mozzarella, colby, etc. has a much shorter refrigerated shelf life than “block” cheese. Once a shredded cheese package has been opened, consumption should be within 5 days.

Though some processed cheeses can be stored at room temperature before opening, it is important to look at the label to see what the manufacturer recommends. Once a processed cheese product is opened, it should be treated the same as the natural cheeses—air tight packaging and away from air flow in the refrigerator. Unopened processed cheese should last about 6 to 9 months without significant changes in the flavor, texture and appearance.

## HOME

*continued from Page 1*

care. An example is “Cold Holding Temperature Too High” where 55% did not know what the proper temperature should be in the refrigerator. The other 45% were not aware their refrigerators weren't holding food at the proper temperature.

When comparing these results to the FDA baseline categories of cooking temperatures, cross-contamination, personal hygiene, chemical storage, and time/temperature ingredient storage, home food safety practices are no better than restaurants. The only exception is improper holding time/temperature practices. This is because food prepared at home is usually consumed

immediately. Restaurants tend to cook and hold food, which increases the chance for improper temperatures.

Health departments do not inspect private homes. However, when an illness occurs, these studies show it is important to improve food safety practices in the home, and reduce the blame of all foodborne illness on the food service industry.

# Product Liability and Foodborne Illness...Who Wins?

Foodborne illness can affect many people. But when it comes to deciding who is liable, it is a question not easily answered.

The USDA Economic Research Service conducted a study of 175 jury trials between 1988-1997 on product liability and foodborne illness. Compensations awarded by the courts may encourage companies to produce safer food, but awards made to the plaintiffs are modest for the suffering they incur. It is not known exactly how many consumers take companies to court for foodborne illness because

many are settled out of court.

The food industry has an economic incentive to produce safe food to prevent a case of foodborne illness from occurring. Sometimes, financial losses can be quite high. The negative publicity surrounding the case can be even more devastating. It would seem that the outcomes of these cases would give important feedback to the company to improve their system. But high costs and the complex legal system structure limit how effective plaintiff compensation is and how the company can improve.

In the cases studied, only 31.4% awarded compensation

to the plaintiffs. Jury trials were more likely to award compensation when the illness was traced to a specific pathogen or when the illness was very severe.

The median dollar amount awarded to plaintiffs in 1998 was \$25,560 for pathogen-contaminated foods. Plaintiffs rarely receive full compensation because of lawyer and court fees. The plaintiff, their families, employers, private health insurers, taxpayers, or some combination of any of these parties incurs the costs associated with these cases.

Future cases of foodborne illness outbreaks against food companies may move into class action lawsuits. Outbreaks with mild or similar symptoms, improvements in identifying and documenting outbreaks, growing legal expertise, and media coverage of successful class action cases will increase the number of cases being pursued.

In summary, the legal system gives little incentive for food companies to improve their food safety procedures. Current product liability laws are effective when a specific pathogen can be identified, the foodborne illness can be positively traced to a company, and plaintiffs are compensated for illness they have suffered.

Source: [www.ers.usda.gov/publications/aer799/](http://www.ers.usda.gov/publications/aer799/)

## How Do You Like Your Eggs?

A statement released by the Food and Drug Administration (FDA) on June 15, 2001, noted that eggs prepared sunny-side up or over-easy can still be served in restaurants. This is to clarify erroneous reports by the media that eggs these types of eggs are prohibited in restaurants.

The 1999 FDA Food Code says that if less thoroughly cooked egg dishes are served in restaurants, consumers should be provided with an advisory – on menus, brochures or other written materials – that there is an increased risk associated with eating undercooked eggs especially for vulnerable consumers. This includes the elderly, immuno-compromised, and young children.

Restaurants and other retail establishments should continue to follow their local and state health regulations covering food service establishments, many of which have adopted the FDA Food Code, partially or fully.

There is a new FDA rule relating to egg safety. However, it provides safe handling instructions to consumers. This final rule dated December 2000 will take effect on September 4, 2001, and states that egg cartons sold in supermarkets and other retail establishments must bear safe handling instructions. This label is an advisory to consumers, especially those most vulnerable to foodborne illness, about the potential of illness from *Salmonella enteritidis*.

This rule is one part of the larger Egg Safety Action Plan, a farm-to-table approach for ensuring the safety of our nation's egg supply. For more information on the Egg Safety Action Plan, go to [www.foodsafety.gov](http://www.foodsafety.gov).

Source: [www.fda.gov/bbs/topics/NEWS/2001/NEW00764.html](http://www.fda.gov/bbs/topics/NEWS/2001/NEW00764.html)

## Company discontinues produce cleaner

Proctor & Gamble has announced plans to discontinue the Fit Fruit & Vegetable Wash and Professional Line Fit Antibacterial Produce Cleaner by September 28, 2001. The products did sell to a significant number of consumers but not enough to meet Proctor & Gamble's sales goals.

The FDA still recommends washing produce with plain water. Before eating or preparing, wash fresh produce under cold running tap water to remove any lingering dirt. This reduces bacteria that may be present. If there is a firm surface, such as on apples or potatoes, the surface can be scrubbed with a brush. Consumers should not wash fruits and vegetables with detergent or soap. These products are not approved or labeled by the Food and Drug Administration for use on foods. You could ingest residues from soap or detergent absorbed on the produce.

When preparing fruits and vegetables, cut away damaged or bruised areas because bacteria that cause illness can thrive in those places. Immediately refrigerate any fresh-cut items such as salad or fruit for best quality and food safety.

Source: [www.fsis.usda.gov/OA/pubs/washing.htm](http://www.fsis.usda.gov/OA/pubs/washing.htm)  
United Fresh Fruit & Vegetable Association

DEPARTMENT OF ANIMAL SCIENCES  
AND INDUSTRY  
244 WEBER HALL  
KANSAS STATE UNIVERSITY  
MANHATTAN, KANSAS 66506



August 2001

Volume 4, Number 4

*Published Bi-Monthly by*

K-State Research and Extension  
Animal Sciences and Industry

Karen P. Penner  
Extension Specialist  
Food Science  
Animal Sciences and Industry  
kpenner@oznet.ksu.edu  
(785) 532-1672

#### Contributors

Karen P. Penner, Editor  
Professor, Food Science  
Animal Sciences and Industry

Karen Blakeslee  
Rapid Response Coordinator  
Animal Sciences and Industry

Karen Schmidt  
Associate Professor  
Dairy Foods Processing

**Sponsored in part by  
Kansas Department on Aging**

**Cooperative Extension Service**  
K-State Research and Extension  
Animal Sciences and Industry  
216 Call Hall  
Manhattan, Kansas 66506

K-State, County Extension Councils, Extension Districts,  
and U.S. Department of Agriculture Cooperating

All educational programs and materials are available  
without discrimination on the basis of race, color,  
religion, national origin, sex, age, or disability.

#### August 20 & 27 Independence

ServSafe  
Mercy Hospital – Marian Hall  
Contact: Linda Carr 620-331-2690

#### August 21 & 22 Overland Park

ServSafe  
Kansas City Regional Office Training  
Center  
Contact: Nada Thoden 913-764-6300

#### Sept 20 & 21 Hays

Ellis Co. Extension Office  
ServSafe  
Contact: Carla Morrical-Frederking  
785-628-9430

#### Sept 25 & 26 Pratt

ServSafe  
Pratt Community College  
Contact: Jean Clarkson-Frisbie  
620-672-6121

## Upcoming Events

#### October 16 & 17 Wichita

ServSafe  
Sedgwick Co. Extension Education Center  
Contact: Teresa Lang, 316-722-7721

#### November 13 & 14 Overland Park

ServSafe  
Kansas City Regional Office Training  
Center  
Contact: Nada Thoden, 913-764-6300

#### For Food Processors...

#### August 15-17, St. Louis, MO

#### Nov. 28-30, Lincoln, NE

HACCP Workshops  
Contact: Fadi Aramouni, 785-532-1668

#### October 11 Overland Park

Sanitation and GMP Workshop  
Contact: Liz Boyle, 785-532-1247

#### October 12 Overland Park

Product Recall Workshop  
Contact: Liz Boyle, 785-532-1247

#### Other Events...

#### Sept. 14

#### Call Hall, KSU

Excellence in Food Science  
Speaker: Carl Hosenev  
Topic: "Starlink Corn: A Lesson for  
Biotech Crops"

#### September 2001

Food Safety Education Month  
Theme: "Be Cool. Chill Out – Refrigerate  
Promptly"

#### October 9 & 10 Wichita

Kansas Conference for Food Protection  
Contact: Stephen Paige, KDHE  
785-296-0189