Risk of Consumption of Raw Milk

Raw milk can be very dangerous to your health as it can harbor numerous disease-causing organisms such as *Campylobacter spp., E. coli O157:H7, Listeria monocytogenes, Yersinia spp. and Brucella spp.* Pasteurization of raw milk can prevent these and other diseases such as tuberculosis, diphtheria, polio, salmonellosis, strep throat, scarlet fever, and typhoid fever. More than 300 people in the United States got sick from drinking raw milk or eating cheese made from raw milk in 2001, and nearly 200 became ill from these products in 2002, according to the Centers for Disease Control and Prevention.

People at high risk for severe infections from illnesses associated with raw milk include people with weakened immune systems, such as elderly people, children, and individuals with certain diseases or conditions. For instance, in pregnant women, listeriosis can result in miscarriage, fetal death, or illness or death of a newborn infant. Also, *E. coli* O157:H7 infection has been linked to hemolytic uremic syndrome, a condition that can cause kidney failure and death.

Common symptoms of foodborne illness from many of these types of bacteria include diarrhea, stomach cramps, fever, headache, vomiting, and exhaustion. Most healthy people recover from foodborne illness within a short period of time, but others may have symptoms that are chronic, severe, or life-threatening.

References (in descending chronological order):

Food Safety and Cheese, Institute of Food Science and Technology Position Statement, n.d., http://drinc.ucdavis.edu/dfoods5_new.htm

FDA Warns Consumers to Avoid Consuming Raw Milk, FDA News, December 16, 2005, http://www.fda.gov/bbs/topics/NEWS/2005/NEW01278.html

USA (Washington, Oregon): E coli outbreak blamed on raw milk, EINet, no date, http://depts.washington.edu/einet/?a=printArticle&print=1269

Epidemiology of *Escherichia coli* O157:H7 Outbreaks, United States, 1982–2002, Rangel, J.M., et al. Emerging Infectious Diseases, 11(4):603-609, April 2005, http://www.cdc.gov/ncidod/eid/vol11no04/pdfs/04-0739.pdf

Coxiella burnetii in Bulk Tank Milk Samples, United States, Kim, S.G., et al. Emerging Infectious Diseases, 11(4):619-621, April 2005, http://www.cdc.gov/ncidod/EID/vol11no04/pdfs/04-1036.pdf.

Got Milk? Make Sure It's Pasteurized, FDA Consumer Magazine, September-October 2004, http://www.fda.gov/fdac/features/2004/504_milk.html (accessed 07/28/05).

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Multistate Outbreak of *Salmonella* Serotype Typhimurium Infections Associated with Drinking Unpasteurized Milk --- Illinois, Indiana, Ohio, and Tennessee, 2002—2003. MMWR, July 4, 2003, 52(26):613-615,

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5226a3.htm.

Outbreak of *Campylobacter jejuni* Infections Associated with Drinking Unpasteurized Milk Procured through a Cow-Leasing Program — Wisconsin, 2001. Harrington, P. et al. MMWR, June 28, 2002, 51(25) 548-549, http://www.cdc.gov/mmwr/PDF/wk/mm5125.pdf.

Outbreak of Multidrug-resistant Salmonella Newport Associated with Consumption of Italian-style Soft Cheese, Connecticut, McCarthy, T., et al., International Conference on Emerging Infectious Diseases. Atlanta, GA, March 2002, http://www.cdc.gov/foodnet/pub/publications/2002/mccarthy 2002.pdf .

Outbreak of Multidrug-resistant Salmonella Newport Associated with Consumption of Italian-style Soft Cheese, Connecticut, McCarthy, T., et al. Foodnet publication, 2002: http://www.cdc.gov/foodnet/pub/publications/2002/mccarthy 2002.pdf (accessed 07/28/05).

Food Safety and Irradiation: Protecting the Public from Foodborne Infections, Tauxe, R. Emerging Infectious Diseases, 7(3)Supplement:516-521, June 2001, http://www.cdc.gov/ncidod/eid/vol7no3 supp/pdf/tauxe.pdf

Goat-Associated Q Fever: A New Disease in Newfoundland, Hatchette, T.F., et al. Emerging Infectious Diseases, 7(3):413-419, May-June, 2001, http://www.cdc.gov/ncidod/eid/vol7no3/pdfs/hachette.pdf.

Outbreak of Listeriosis Associated With Homemade Mexican-Style Cheese --- North Carolina, October 2000--January 2001. MMWR, July 06, 2001, 50(26);560-2, http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5026a3.htm.

Outbreak of *Escherichia coli* O157:H7 Infection Associated With Eating Fresh Cheese Curds --- Wisconsin, June 1998. MMWR, October 13, 2000 / 49(40);911-3, http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4940a3.htm..

Mass Treatment of Humans Who Drank Unpasteurized Milk from Rabid Cows -- Massachusetts, 1996-1998. MMWR, March 26, 1999 / 48(11);228-229, http://www.cdc.gov/mmwr/preview/mmwrhtml/00056759.htm.

The epidemiology of raw milk-associated foodborne disease outbreaks reported in the United States, 1973 through 1992, Headrick ML, Korangy S, Bean NH, et al. Am J Public Health. 1998;88:1219-1221.

Brucellosis associated with unpasteurized milk products abroad -- United Kingdom. CCDR, Volume 22-02, 15 January 1996, http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/96vol22/dr2202eb.html .

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Two Outbreaks of Multidrug-Resistant Salmonella Serotype Typhimurium DT104 Infections Linked to Raw-Milk Cheese in Northern California. Cody, S. et al. JAMA 1999;281:1805-1810.

Investigation of Multidrug-Resistant *Salmonella* Serotype Typhimurium DT104 Infections Linked to Raw-Milk Cheese in Washington State. Villar, R. et al. JAMA, 1999;281:1811-1816.

Campylobacter enteritis outbreaks associated with drinking raw milk during youth activities. A 10-year review of outbreaks in the United States, Wood, R.C., et al. JAMA. 1992 Dec 9;268(22):3228-30.

Epidemiologic Notes and Reports Bovine Tuberculosis – Pennsylvania. MMWR, March 30, 1990, 39(12);201-203, http://www.cdc.gov/mmwr/preview/mmwrhtml/00001581.htm

Epidemiologic Notes and Reports Update -- Listeriosis and Pasteurized Milk. MMWR, December 16, 1988, 37(49);764-766, http://www.cdc.gov/mmwr/preview/mmwrhtml/00001316.htm.

Epidemiologic Notes and Reports Campylobacter Outbreak Associated with Raw Milk Provided on a Dairy Tour – California. MMWR, May 16, 1986, 35(19);311-2, http://www.cdc.gov/mmwr/preview/mmwrhtml/00000734.htm

A point-source outbreak of campylobacteriosis associated with consumption of raw milk, Korlath, J.A., et al. Journal of Infectious Diseases,152(3):592-6, September 1985.

An outbreak of multiple-drug-resistant Salmonella enteritis from raw milk. Tackett, C.O., et al. JAMA, 1985 Apr 12;253(14):2058-60.

Salmonellosis from Inadequately Pasteurized Milk – Kentucky, Adams, D., et al. MMWR, September 14, 1984, 33(36);505-6, http://www.cdc.gov/mmwr/preview/mmwrhtml/00000400.htm.

Unpasteurized milk. The hazards of a health fetish. Potter, ME, et al. JAMA, 1984 Oct 19;252(15):2048-52.

Epidemiologic Notes and Reports Campylobacter Outbreak Associated with Certified Raw Milk Products – California. MMWR, October 05, 1984 / 33(39);562, http://www.cdc.gov/mmwr/preview/mmwrhtml/00000412.htm.

Epidemiologic Notes and Reports Chronic Diarrhea Associated with Raw Milk Consumption – Minnesota. MMWR, September 21, 1984, 33(37);521-2,527-8, http://www.cdc.gov/mmwr/preview/mmwrhtml/00000406.htm.

Salmonellosis from Inadequately Pasteurized Milk – Kentucky, MMWR, September 14, 1984, 33(36);505-6, http://www.cdc.gov/mmwr/preview/mmwrhtml/00000400.htm.

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Salmonella dublin and Raw Milk Consumption – California. MMWR, April 13, 1984, 33(14);196-8, http://www.cdc.gov/mmwr/preview/mmwrhtml/00000318.htm.

Campylobacteriosis Associated with Raw Milk Consumption – Pennsylvania. MMWR, July 08, 1983, 32(26);337-8,344,

http://www.cdc.gov/mmwr/preview/mmwrhtml/00000104.htm .

Epidemiologic Notes and Reports Multi-State Outbreak of Yersiniosis, Lofgren, J.P., et al. MMWR, September 24, 1982, 31(37);505-6, http://www.cdc.gov/mmwr/preview/mmwrhtml/00001162.htm