# Sipping Cider Safely

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As autumn arrives, so does the seasonal favorite of apple cider. Unfortunately, unpasteurized fresh apple cider and other unpasteurized juices have been linked with outbreaks of food-borne illness several times over the past 30 years.

There is a risk of apples becoming contaminated by food borne pathogens, like *Escherichia coli* O157:H7. There are several possible ways that the apples used to produce the juice or cider can become contaminated. The first is by using windfall apples, sometimes called "drops" or "grounders", which get contaminated by harmful bacteria on the ground. Windfall apples can be contaminated by manure of either cattle or deer, both carriers of *E. coli* O157:H7. In addition, people harvesting apples can transfer manure or other contaminates to the apples still on the tree if their hands touch the rungs of the ladder where dirty shoes or boots have been. Also, pathogen-contaminated water sources, such as wells and lakes, are sometimes inadvertently used to wash apples. Washing apples with safe, potable water is not guaranteed to remove all pathogens.

Certain groups of people, including infants, children, the elderly, pregnant women and persons with compromised immune systems are at greater risk of complications from *E.coli* O157:H7-related illnesses. These people should take special precautions to protect themselves from any food that might have been contaminated by this pathogen. The symptoms of *E. coli* O157:H7 food poisoning include diarrhea and possibly bloody diarrhea, which may be followed by conditions leading to kidney failure A lifelong need for kidney dialysis or death may result.

Be sure to use freshly harvested apples for home production of juice and cider. As apples age, they become less acid and *E. coli* O157:H7 is better able to survive in the juice or cider that is produced. Never use drops (apples that have fallen to the ground) for home cider making Remember to do the heat treatment on all homemade apple juice or cider. Do not purchase cider made from drops, even cider that has been pasteurized.

Pasteurization is a heat treatment designed to kill harmful bacteria and to prolong the shelf life of the product. Grocery shelf apple juice and cider have been pasteurized and commercially frozen juice concentrate has also been heat treated. Apple juice and cider that is sold refrigerated in the produce department or in the dairy case may or may not be pasteurized. Be sure to check the product label, ask your grocer, or check with the producer to be sure. Some ciders contain preservatives, such as sodium benzoate or potassium sorbate. Potassium sorbate inhibits growth of yeasts and molds whereas sodium benzoate inhibits growth of yeasts and bacteria

Precautions for safe cider consumption include boiling the unpasteurized cider before drinking it or drinking only pasteurized cider or juice. When heating fresh cider, the cider needs to be brought just to a boil. Stir the cider while heating so that it heats evenly. Boiling will change the flavor of the cider somewhat. Freezing or refrigerating unpasteurized cider *will not* destroy pathogenic microorganisms such as *E. coli* O157:H7. Once opened; pasteurized cider and juice should be stored in the refrigerator to minimize growth of other microorganisms. Cider or juice which is contaminated by *E. coli* O157:H7 does not look, smell or taste any different than uncontaminated apple cider. *Always* boil or pasteurize apple juice or cider before consuming!

Enjoy this seasonal favorite, but do it safely!

*Sources:*
*"Fresh Apple Cider Safety", Rutgers Cooperative Extension, October 11, 1997.*
*"Safe Consumption of Apple Juice and Apple Cider", Department of Food Science, University of Wisconsin, 1997.*
*"Apple Cider and E coli: Cider Processing and Reducing Risk", Food Safety Update New York State Agricultural Experiment Station, November 5, 1996.*