



## UNIVERSITY OF CALIFORNIA

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# Safe Handling of Fruits and Vegetables

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**E**ating a variety of fruits and vegetables is healthy, but care must be taken to be sure fruits and vegetables do not become contaminated with harmful bacteria. In the United States, one out of four people suffers from foodborne illness each year. Some of these illnesses have been traced to eating raw fruits or vegetables.

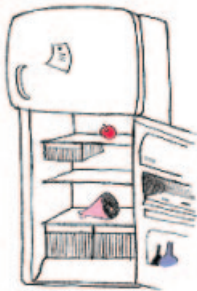
Everyone is at risk for foodborne illness, but people who are younger than 5, older than 50, diabetic, take antibiotics or antacids, and whose immunity is compromised are at higher risk.

Bacteria are everywhere. Harmful bacteria may be on fruits and vegetables, hands, and kitchen counters and sinks, even when they look, feel, or smell clean.




This publication provides guidelines for protecting you from harmful bacteria.

## AT THE SUPERMARKET





-  In the grocery cart, separate fruits and vegetables from meat, poultry, and fish to avoid cross-contamination.
-  When bagging fresh fruits and vegetables to take home from the supermarket, put fresh produce and meat, poultry, and fish in separate bags.



## HOME STORAGE

-  All cut or prepared fruits and vegetables should be stored in the refrigerator along with many types of whole fruits and vegetables.
-  When using the refrigerator, place produce in the produce drawer or on a refrigerator shelf.
-  Store meat, poultry, and fish in the clean meat drawer or on a tray on the bottom shelf below other refrigerated foods. This prevents meat, poultry, or fish juices from dripping on other foods.

## PREPARE THE KITCHEN

-  Clean the sink with hot, soapy water or cleanser before and after washing and preparing fresh fruits and vegetables.
-  Always wash cutting boards and preparation areas before and after food preparation. Wash preparation areas and utensils especially well after preparing meat, poultry, or fish and before preparing foods that will be eaten without cooking.
-  If possible, use one cutting board and preparation area for fresh fruits and vegetables and a different cutting board and preparation area for meat, poultry, and fish.
-  Always wash knives after cutting meat, poultry, or fish with hot soapy water before cutting fresh fruits and vegetables; or, use different knives for cutting meat products and fresh produce.



Washing with soap or detergent removes soil and food, but it removes only some bacteria. For **additional safety, always sanitize cutting boards and food preparation areas** after cutting meat, poultry, or fish, or any produce item with visible dirt or that grows on or in the ground. Sanitize by one of the following methods:

- Pour boiling water over the clean wood or plastic cutting boards for 20 seconds.
- Rinse clean wood and plastic cutting boards with a solution of 1 teaspoon chlorine bleach in 1 quart (4 cups) of water.
- Place plastic cutting boards in the dishwasher and run, using normal cleaning cycle.



### WASH YOUR HANDS

Always wash hands with hot, soapy water for at least 20 seconds before and after handling fresh fruits and vegetables.



### WASH ALL FRUITS AND VEGETABLES

Always wash fruits and vegetables, including those that are organically grown, come from a farmer's market, or were grown in your own garden.

Wash fruits and vegetables just before cooking or eating.

Wash under running water.

When possible, scrub fruits and vegetables with a clean scrub brush or with hands.

For melons, scrub the rind with a brush under running water before cutting or peeling. This removes bacteria before it is spread by the knife when slicing. Sanitize the brush by putting it in the dishwasher, placing it in boiling water for 20 seconds, or rinsing it in a bleach solution of 1 teaspoon chlorine bleach in 1 quart (4 cups) of water.

Dry fruits and vegetables with **disposable** paper towels.

Do not use antibacterial soaps or dish detergents to wash fruits and vegetables because soap or detergent residues can remain on the produce. The FDA has not evaluated the safety of the residues that could be left from soaps and detergents. Some commercial cleaning solutions specifically designed for fresh fruits and vegetables may help remove additional dirt on some types of produce. However, the effectiveness of these washes is not currently standardized.

Soaking fruits and vegetables in water is not recommended because of the potential for cross-contamination.

Remove outer green leaves from items like lettuce or cauliflower **before** washing. Trim the hull or stem from items like tomatoes, strawberries, and peppers **after** washing.

Ready-to-eat, prewashed, bagged produce can be used without further washing if it has been kept refrigerated and is used by the "use-by" date. If desired, produce can be washed again under running water.

Precut or prewashed produce sold in **open** bags or containers should always be washed under running water before using.



### REFRIGERATE ALL LEFTOVERS

Peel leftover melons and store the fruit in the refrigerator.

Store all cut produce in a clean container in the refrigerator.

## FOR MORE INFORMATION

### Useful Web sites

USDA/FDA Foodborne Illness Education Information Center  
<http://www.nal.usda.gov/foodborne/index.html>

U.S. FDA/Center for Food Safety and Applied Nutrition  
<http://vm.cfsan.fda.gov/list.html>

Gateway to Government Food Safety Information  
<http://www.foodsafety.gov/>

### ANR Communication Services Publications

You'll find more information on food safety in the following ANR Communication Services publications available for free downloading at <http://anrcatalog.ucdavis.edu>:

*Cantaloupe: Safe Methods to Store, Preserve, and Enjoy*, Publication 8095, 2003

*Garlic: Safe Methods to Store, Preserve, and Enjoy*, Publication 7231, 1997

*Peppers: Safe Methods to Store, Preserve, and Enjoy*, Publication 8004, 1998

*Safe Methods of Canning Vegetables*, Publication 8072, 2003

*Guidelines for Food Safety during Short-Term Power Outages: Consumer Fact Sheet*, Publication 7264, 2002

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