

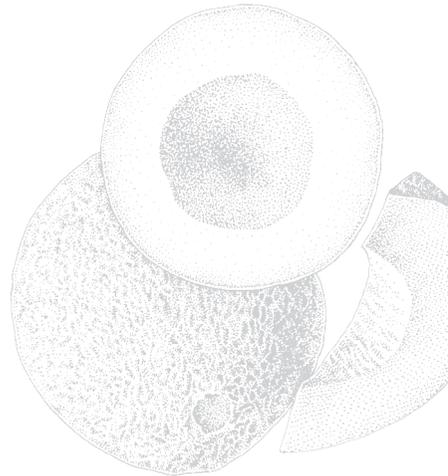
## Preparation

- Wash your hands before preparing foods. Hands should be washed thoroughly with hot, soapy water for 20 seconds before and after handling fresh produce, raw meat, poultry, or seafood, as well as after using the bathroom, changing diapers, or handling pets.
- Removing outer leaves or peeling may decrease the amount of pesticide residues or harmful microbes on fruits and vegetables.
- Wash all fruits and vegetables with cool tap water to remove dirt and residues. Some companies are marketing “produce-cleaning” solutions, but these have not been proven more effective than plain water in removing microorganisms.
- Scrub firm produce with a clean produce brush. Melons and cantaloupes have been involved in several cases of foodborne illness. Before slicing these fruits, the rind must be scrubbed thoroughly to prevent the knife from transferring bacteria to the cut surface.

- Don't wash fruits and vegetables with household soaps and detergents. These products have not been approved for washing produce.
- Don't cross-contaminate. Use clean cutting boards and utensils when handling fresh produce. Use one clean cutting board for fresh produce and a separate one for raw meat, poultry, and seafood.
- Wash surfaces often. Cutting boards, dishes, utensils, and countertops should be washed with hot, soapy water after coming in contact with fresh produce or raw meat, poultry, or seafood.
- Cutting boards and countertops can be sanitized with a solution of one teaspoon of chlorine bleach in one quart of water. However, be aware of the hazards associated with storing and using bleach, and do not apply the solution directly to fruits and vegetables.
- Refrigerate fresh produce within two hours of peeling or cutting. Discard cut produce left at room temperature for more than two hours.

## Serving

- Fresh produce should be held unrefrigerated on the table no longer than two hours.
- At the serving table, don't let the outer rinds of melon or cantaloupe touch freshly cut surfaces.
- Use a cooler with ice or ice gel packs to transport or store cut fresh fruits and vegetables at picnics or other summer events. Keep raw meats in a separate cooler.



For more information about food safety, contact Penn State's Department of Food Science at (814) 865-5444.

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PROPER CARE AND HANDLING OF

# FRUITS AND VEGETABLES

*From Purchase to Preparation*



To reduce the risk of  
foodborne illness, you

need to know how to

handle, store, and

prepare fresh fruits and  
vegetables properly.

Following the guidelines

in this brochure can

help you make sure that

the food you're serving

is safe.

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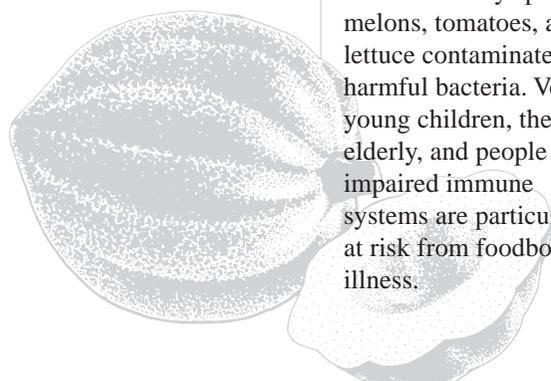
## PROPER CARE AND HANDLING OF FRUITS AND VEGETABLES



Fruits and vegetables are an important part of a healthful diet. They are low in calories, fat, and sodium. They also supply fiber, vitamins, minerals, and other health-promoting phytochemicals.



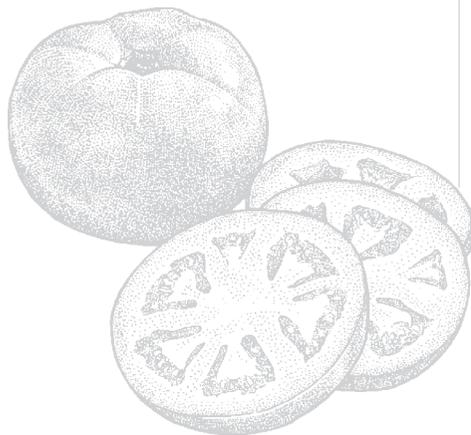
People who eat five or more servings of fruits and vegetables every day have half the risk of developing cancer as those who only eat one or two servings a day. A diet containing fruits and vegetables also may reduce the risk of heart disease, diabetes, stroke, obesity, birth defects, high blood pressure, cataracts, diverticulosis, and osteoporosis.



However, there have been rare cases of people becoming ill from eating contaminated fruits and vegetables. Outbreaks of foodborne illness have been caused by sprouts, melons, tomatoes, and lettuce contaminated with harmful bacteria. Very young children, the elderly, and people with impaired immune systems are particularly at risk from foodborne illness.

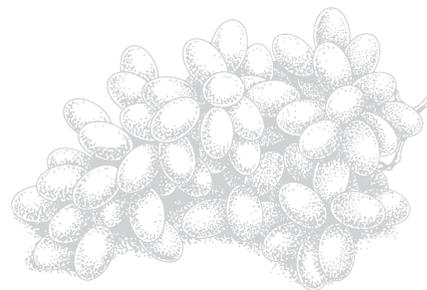
Many people also have concerns about pesticides on the surface of fruits and vegetables. However, pesticide residues are generally well within limits set by the federal government, which means they are not present at levels that could harm individuals. Contamination with harmful bacteria and viruses is a far greater threat to health.

Simple steps can ensure that the fruits and vegetables you eat are safe. To reduce your risk of exposure to microbial and chemical contaminants, follow these guidelines.



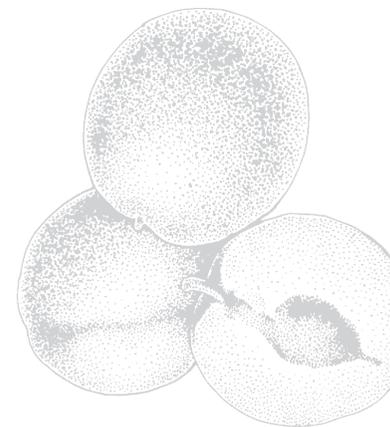
### At the Grocery Store

- Purchase only high-quality fruits and vegetables. Bruised, shriveled, or slimy produce may harbor harmful bacteria.
- Be sure the produce you buy has been kept refrigerated or on ice. Most bacteria grow slowly, or not at all, at temperatures below 40°F.
- Add perishable fruits and vegetables to your cart toward the end of your shopping trip, so that they remain cool.
- In the shopping cart, keep meats, fish, and poultry in plastic bags to prevent juices from dripping onto fruits and vegetables. Make sure these items are packed in separate bags at the checkout counter.



### On the Way Home

- In summer, minimize the time that food sits in the car. Plan ahead so that grocery shopping is your last trip of the day.



### In the Kitchen

- Immediately refrigerate perishable fruits and vegetables. Store them in the refrigerator's crisper drawer to maintain quality and safety.
- Put meats, poultry, and seafood in containers, then store them below fruits and vegetables in the refrigerator. This will prevent meat juices, which may contain harmful bacteria, from dripping on your produce.
- Potatoes, tomatoes, pears, whole melons, and other fruits and vegetables are sometimes stored at room temperature to maintain quality or speed ripening. Keep these items in a clean, dry place, away from areas where meats, fish, and poultry are prepared.
- Discard fruits and vegetables that have been stored beyond their shelf life, or that are shriveled or slimy.

