

Safe Handling of Fresh Fruits and Vegetables

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Family and Consumer Sciences

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Fruits and vegetables are an important part of the American diet. Providing customers with safe, wholesome fruits and vegetables is a priority of farmers and produce managers.

Each year, people get sick from fruits and vegetables that have been contaminated with pathogens that can cause foodborne illness. Fruits and vegetables pick up dust and soil from the environment where pathogens can be found. People can also transfer pathogens to produce through handling.

Consumers play an important role in making sure the food they eat is good for them and their families. Here are suggestions for safe handling of fruits and vegetables.

Buying fresh fruits and vegetables

At the store or farm market: Look for fresh-looking fruits and vegetables that are not bruised, shriveled, moldy, or slimy. Do not purchase anything that smells bad, and do not buy packaged vegetables that show signs of decay.

Buy only the amount of fresh produce that you can use within a few days. The exceptions are apples, potatoes, and citrus fruits that can be stored longer. Handle produce gently at the store or market. Keep produce at the top of the cart because putting other items on top can bruise the food. Bruised produce will spoil faster.

At home: Moisture is needed for pathogens to grow and can cause the food to become unsafe if fresh fruits or vegetables are stored wet. Put produce away without washing first. If produce must be washed before refrigeration, such as for muddy vegetables picked fresh from the garden, be sure to dry the surface thoroughly with paper towels or in a salad spinner. Fresh produce keeps best in the refrigerator crisper with the temperature below 41°F. The slightly higher humidity in

the crisper prevents fruits and vegetables from drying out too much, the opposite problem being too wet. Throw away any produce that shows any sign of dehydration or spoilage from excess moisture.

If all of the produce will not be used in a single meal, such as a head of lettuce or bunch of greens, only wash the amount needed for the meal. Cut off the portion of peppers or cucumbers to be used in the meal and store the unused part in the refrigerator. When the remainder is later used for a meal, make a clean cut to remove the exposed cut surface. If there are other cuts or bruises, remove those also. Pathogens thrive on wet produce and in the cut or bruised areas where the juices feed the bacteria letting them grow.

Some packaged fruits and vegetables may be marked on the label that they have been double or triple washed when packaged. Washing again before preparation for a meal may remove some dust or soil, but actually there is little more to be removed than what was removed commercially. Washing again is no guarantee that pesticides or pathogens will be removed by the water. The Food and Drug Administration has not approved soap, dish detergent, or chlorine bleach for home sanitizing foods. Therefore, these products should not be used in an attempt to make the food safer.

How should fresh fruits and vegetables be washed at home?

Temperature: At mealtime, all firm fruits and vegetables, such as apples, pears, tomatoes, peppers, cucumbers, and avocados, should be washed in water between 80 and 110°F (that is, slightly warm water). A vegetable brush will be more efficient at removing surface soil. Produce used in salads, such as lettuce, radishes, carrots, etc., should be washed in the coldest tap water available to maintain crispness.

Spray washing: The best method for washing ripe or fragile greens and berry fruits, such as spinach, leaf lettuce, strawberries, raspberries, blackberries, and blueberries, is to spray with water from a kitchen sink sprayer. Use a colander so the food can be gently turned as it is sprayed.

Immersion: If a sink sprayer is not available, berries, other soft fruit and leafy greens should be placed in a wire basket or colander and into a 5 to 8 quart pot of clean water. Move the basket in and out of the water several times. Change the water until the water remains clear. Don't soak the food. If fruit or greens absorb too much water, they will lose flavor, texture, and aroma.

Dry: Dry with a paper towel. Washed berries should be eaten and not stored in the refrigerator. Greens, such as spinach, chard, kale, and collards should be cooked while wet, immediately after washing.

In addition to washing fruits and vegetables, you should:

- Wash hands before handling fresh fruits and vegetables. Since these are foods that are ready-to-eat (that means, that don't have to be cooked before eating), the food could be cross-contaminated with pathogens from unwashed hands. Use warm water and soap, scrub for at least 20 seconds, then air dry or use a paper towel to dry hands.
- Clean and sanitize counters, sinks, and utensils before preparing food or after touching raw meat and poultry. Use 1 teaspoon unscented chlorine bleach in 1 quart water to make a simple homemade sanitizer for food preparation surfaces. Remake at least weekly and store in a dark place to maintain sanitizer potency.
- Keep refrigerators clean and cold. Clean the refrigerator with 5% vinegar and rinse with clean water to dilute the odor of the vinegar. Baking soda only cleans, whereas vinegar can also sanitize the refrigerator. Be sure the refrigerator is below 41°F, but not so cold that the fruits and vegetables begin to freeze.
- Cover and refrigerate produce you have cut. You can use plastic wrap or store in a container to prevent cross contamination.
- Read and follow label instructions such as "triple washed," "keep refrigerated," or the "use by" date.
- Discard cut produce that has been out of the refrigerator for more than two hours. For food safety, it is best to not purchase cut fruit if you don't know how it has been stored. If you prepare cut fruit for a meal at home, either discard leftovers, or eat them within a day.

Sources

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