



Sprouts - Sprouting Questions

Sprouts have become a standard item in salad bars and produce departments across the country. An increasing frequency of sprout-related food borne illness has accompanied their growing presence in supermarkets and restaurants.

What are sprouts?

Sprouts are germinating forms of seeds and beans and are easy to produce. They require no soil, only water and cool temperature. They emerge in 2 – 7 days, depending on the type of seed or bean. In addition to raw alfalfa sprouts, other varieties include clover, sunflower, broccoli, mustard, radish, garlic, dill, and pumpkin, as well as various beans such as mung, kidney, pinto, navy, and soy, and wheat berries. While versatile, sprouts also are favored for their nutritional value. Like other fresh produce, sprouts are low in calories and fat and provide substantial amounts of key nutrients, such as vitamin C, foliate, and fiber.

Are sprouts dangerous?

The most common kind, alfalfa sprouts, has been linked to a number of food borne illness outbreaks worldwide. Since 1995, health officials have attributed 13 food borne illness outbreaks to sprouts. Ten of these outbreaks occurred in the United States, resulting in illnesses in approximately 1,000 Americans and at least 1 death. The largest outbreak occurred in Japan in 1996; 9,000 people were sickened and 17 died after eating radish sprouts contaminated with E. Coli O157:H7. Most of the outbreaks have involved sprouts contaminated with either E. Coli O157:H7 or Salmonella.

How do sprouts become contaminated?

It is believed that the seeds from which sprouts are derived are often the source of contamination. The seeds may become contaminated by animals in the field or during post-harvest storage. Mishandling of sprouts during production, packing, or distribution has not been implicated as the source of sprout contamination. However, bacteria already present in the sprouting seed can continue to thrive in conditions in which poor food handling techniques are practiced, for example, lack of proper refrigeration, infected food handlers, and dirty/unsanitary sprouting facilities.

Who is most at risk of foodborne illness from consuming raw seed sprouts?

Following the three 1998 outbreaks involving raw alfalfa sprouts, the Food and Drug Administration reaffirmed a warning that had been issued by the Centers for Disease Control and Prevention in 1997. It urges people at high risk, children, the elderly, and people with compromised immune systems, to avoid raw alfalfa sprouts until safe methods are identified and put in place. **In establishments serving a highly susceptible population, the use of raw seed sprouts is prohibited.**

What measures are being taken to render sprouts safe to eat?

High on the list of possible strategies was decontamination of sprout seeds by chemical treatment with calcium hypochlorite, irradiation, heat treatment as in

pasteurization process, Hazard Analysis and Critical Control Points (HACCP) program for sprout growers, and good agricultural and manufacturing practices. Another option might be to include a list of safe handling practices or mandatory warning labels on sprout packages.

How can I reduce my risk of foodborne illness from eating sprouts?

- If you belong to a high-risk group, avoid raw sprouts.
- Buy only sprouts kept at a refrigerated temperature of 41°F or below; select crisp sprouts with the buds attached. Avoid musty-smelling, slimy sprouts.
- Refrigerate sprouts at home, no higher than 41°F.
- Wash hands with soap and warm water before and after handling any raw foods.
- Rinse sprouts thoroughly with water before use.

FDA offers the following advice to all consumers concerning sprouts:

- Cook sprouts. This significantly reduces the risk of illness.
- Check sandwiches and salads purchased at restaurants and delicatessens. These entrées often contain raw sprouts. Consumers who wish to reduce their risk of foodborne illness should specifically request that raw sprouts not be added to their food.
- Sprouts grown in the home also present a risk if eaten raw. Many outbreaks have been attributed to contaminated seed. If pathogenic bacteria are present in or on seed, they can grow to high levels during sprouting even under clean conditions.
- Sprouts should not be a menu item in food establishments serving highly susceptible populations.

For information on growing sprouts in a retail food establishment, the FDA offers information at the following website: <http://www.cfsan.fda.gov/~dms/sprouret.html>. The Houston Department of Health and Human Services also requires a variance and a HACCP plan if your food establishment grows sprouts for sale or service. For additional information on HACCP plans and variances for retail establishments, [click here](#).

Please call the [Bureau of Consumer Health Services](#) at 713-794-9200 for more information on any other food-safety related topic.