



## When Eating Your Vegetables Makes You Sick

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Fruits and vegetables are, according to this story, now responsible for more large-scale outbreaks of food-borne illnesses than meat, poultry or eggs. Overall, produce accounts for 12 percent of food-borne illnesses and 6 percent of the outbreaks, up from 1 percent of the illnesses and 0.7 percent of outbreaks in the 1970s, according to data from the Centers for Disease Control and Prevention. Meanwhile, meat-related E. coli infections have been on the decline.

Several factors are responsible: the centralization of produce distribution, a rise in produce imports, as well as the growing popularity of pre-chopped fruits and vegetables. Both the government and the industry have identified five products that are particularly problematic: tomatoes, melons (especially cantaloupes), lettuce, sprouts and green onions.

The story says the U.S. federal government is stepping up efforts to get everyone along the produce chain --

growers, processors, supermarkets and restaurants--to clean up their acts. Earlier this month, the Food and Drug Administration issued a strongly worded letter -- its second in 20 months -- to the California leafy-greens industry, expressing concern over lettuce-related E. coli outbreaks and a lack of collaborative effort to combat the trend. While it acknowledged that the source of lettuce outbreaks is rarely discovered, it added that "claims that we cannot take action until we know the cause' are unacceptable."

A group within the FDA is pushing to expand certain food-safety practices beyond food processors to cover those who harvest, store and distribute raw agricultural products. The produce industry, too, is developing detailed guidelines covering each step of the journey to market. James R. Gorny, a vice president of United Fresh Fruit & Vegetable Association, a trade group, was cited as saying that the first publication, a 32-page farm-to-fork report on melons, was submitted to the FDA early this month and was released to the industry Monday. Among the recommendations: delaying harvest or extra washing after heavy rains, which increase the likelihood of contamination from the soil.

Scientists often have trouble tracing how fresh fruits and vegetables become contaminated. Even washed vegetables can be subject to contamination. Last July, salmonella-tainted tomatoes sickened 561 people in 18 states and in Canada. While washing fresh tomatoes gets rid of bacteria on the skin, salmonella can enter the tissue through the stem or cracks in the skin, says Michael Doyle, director of Center for Food Safety at the University of Georgia.

In the case of cantaloupes, bacteria from irrigation water, manure or wildlife like birds can sit on the skin or enter through cracks and crevices in the rind, he says.

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But scientists do know that fruits and vegetables with protective skins, such as melons and tomatoes, are more easily penetrated by bacteria when the skin is broken. American consumers and restaurants increasingly are purchasing melons, tomatoes and other produce that are pre-cut and packaged. Sales of fresh-cut produce -- mainly sold in clear bags -- reached \$12.5 billion in 2004, almost four times their sales in 1994, says Roberta L. Cook, an agricultural economist at University of California at Davis.

Vicki Nibecker of Arlington, Va., eats pre-cut salads at least twice a week. "It's very convenient," she says. "It's healthy, especially in a world where everybody is multitasking."

Food processors say that they go to great lengths to reduce the risk of contamination. But government food-safety experts say the greater the number of steps between farm and table, the greater the opportunity to introduce food-borne illnesses. And, because packages advise that washing precut produce isn't necessary, consumers often don't wash it.

Regulators say that the supply chain has grown longer and more complicated, covering growers, harvesters, packers, shippers and sellers. That increases the opportunities for contamination. For instance, shippers might use the same container for lettuce and meat or might not maintain low enough temperatures for the storage of fresh produce.

Centralized distribution of produce also enables any contamination to spread to a wider area and makes it harder to trace the source of a disease outbreak. The FDA, which regulates fruits and vegetables, doesn't conduct inspections of them unless there are particular safety concerns or research needs. The Agriculture Department conducts daily inspections on the meat, poultry and egg plants it oversees.

Robert E. Brackett, director of the FDA's Center for Food Safety and Applied Nutrition, was cited as saying the agency is stepping up scrutiny of imported fruits and vegetables; more imports need to come with production dates and farm information.

Bill Marler, a lawyer in Seattle, Wash., who handled a 1993 Jack in the Box Inc. case involving E. coli in hamburgers, has since turned to suing suppliers and restaurants on behalf of hundreds of people who became sick after eating lettuce, cantaloupe, sprouts,

spinach and green onions. In August, one of his 100 clients won \$6.25 million after contracting hepatitis A from eating green onions from Mexico at a Chi-Chi's restaurant near Pittsburgh.

Marler, who the story says calls himself the "The Lettuce Guy" was further quoted as saying, "We thought we were litigating ourselves out of business, but the lettuce industry has prevented us from doing that."

Donna Garren, a vice president at the National Restaurant Association, was quoted as saying, "Lawsuits and liability go down the chain. Restaurants, often the first ones hit by lawsuits after an outbreak, have stepped up monitoring their suppliers' safety programs."

Dr. Brackett was further cited as saying, that the outbreaks have put government officials "in a quandary" as they try to find a balance between touting the benefits of fresh produce and alerting consumers of potential hazards. They don't want to muddy the message that eating veggies is healthy, especially now that Americans are eating more fruits and vegetables. Per-capita consumption of fresh produce rose to 332 pounds in 2004 from 287 in 1990, according to the Produce Marketing Association, a trade group.

One thing officials stress is the importance of washing. A survey published in the Journal of Food Protection in 2002 found that 6 percent of consumers seldom or never wash fresh produce, more than 35 percent don't bother to wash melons, and nearly half don't wash their hands before handling fresh produce. The study estimated that each year 65 million to 81 million Americans become sick from eating food prepared at home.

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# Acute versus Chronic Effects

## *Pesticide exposures*

When an applicator is exposed to a pesticide, several things can happen. The applicator can have no reaction, the applicator experiences an immediate reaction, or the applicator feels the effects at a much later time. These effects are largely dependent upon the chemical in question, its toxicity, where the chemical came into contact with the body, and how much was absorbed.

## Acute Effects

Acute effects are reactions that occur immediately or shortly after exposure. Reactions can range from mild to severe, and in the case of materials with a high acute toxicity; a small amount can be deadly.

Examples of mild acute reactions are things such as a skin rash, fatigue, light-headedness, headache, and irritation to the eyes, nose, or throat. Most of these reactions are very similar to allergy symptoms.

A severe acute reaction can be things such as excessive salivation, stomach cramps, nausea, vomiting, blurred vision, blistered skin, convulsions, and unconsciousness. If the pesticide exposure occurred on a hot day, some of these symptoms can be mistaken for heat exhaustion or heat stroke.

## Chronic Effects

Chronic effects are reactions that do not appear immediately after an exposure. Chronic pesticide reactions are caused by a long-term exposure to a pesticide or by the delayed effect from an exposure.

Because chronic effects can take a long time to appear, it is sometimes difficult to associate the symptom with a pesticide exposure. To complicate things even further, some chronic effects are difficult to differentiate from some diseases. Chronic effects can include sensitization, dizziness, weakness, chronic headaches, weight loss, and jaundice.

Severe chronic effects can be things such as nerve or liver damage, reproductive disorders, genetic mutations, birth defects, cancer, and tumors.

## Labels and MSDS

Before you apply a pesticide, be sure to read the label and the material safety data sheet for the material. The label will mention the effects you

may experience if you are exposed. (Be aware that you may react a little differently than expected.) If you suspect a pesticide illness, let your supervisor know immediately and seek medical care. (By law, you cannot drive yourself to the doctor if you suspect you have a pesticide illness; you must be driven!)

The most important thing you can do to avoid acute or chronic effects is to wear all of the protective gear required by regulation or the pesticide label. Also keep in mind that safety gear is a last line of defense. Nothing substitutes for good application techniques!

## West Nile Virus in 2005



*Santa Clara County's first equine death.*

Horses have a high mortality rate when they contract West Nile Virus (WNV). A vaccine is available for horses, but some owners didn't complete the series of vaccinations or skipped them all together and the results were deadly. In California, 456 horses were infected and 200 died as a result of the disease this past year.

Santa Clara County's first positive case of WNV in a horse was identified in November 2005. The horse, a 20-year-old male, was located in the Almaden Valley.

The horse experienced the onset of illness on November 25<sup>th</sup> and was euthanized on November 28<sup>th</sup>. The horse did not have a history of travel and information on its vaccination history was not available.

This case is a reminder that working outside during the prime mosquito times of dawn and dusk presents a risk, even this time of year! Be sure to protect yourselves and wear your repellent!

## Year in review:

The West Nile Virus has spread to 48 states, Canada, and Mexico. There were 2,799 human cases detected in the United States, including 102 deaths. California accounted for 926 cases and 18 fatalities.

For more information regarding West Nile Virus, contact the Santa Clara County Vector Control District at (408) 792-5010. You can also visit this helpful website: <http://www.westnile.ca.gov/>

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