



Salmonella contamination is preventable

It's great to think of life as just a bowl of cherries, but in reality it is a continuous series of calculated risks. One of those risks is related to what we eat.

The incidence of food-borne diseases has increased over the last few decades due to food contamination from a variety of microorganisms. One of these problematic microbes is called *Salmonella enteritidis*.

Question: Why are raw and undercooked eggs unsafe?

Answer: Eggs are one of the foods that can harbor salmonella. If an egg contains salmonella, the organism is killed by cooking.

Q: What is the risk of getting an egg contaminated with salmonella?

A: In the 1990s it was estimated that on the mainland United States, one in every 20,000 eggs might contain salmonella. It is not possible to say exactly what those odds are now.

In 1999 the President's Council on Food Safety developed an Egg Safety Action Plan with a goal of reducing egg-associated salmonella by 50 percent. Hawaii established an Egg

Quality Assurance Plan, a cooperative effort of the U.S. Food and Drug Administration, state Health and Agriculture departments and the University of Hawaii College of Tropical Agriculture & Human Resources Cooperative Extension Service.

Q: Is salmonella a problem in Hawaii?

A: Just over 208 cases of illness due to salmonella have been reported in Hawaii since 1999, with 114 of those cases related to eggs produced on one farm. That chicken flock was destroyed, and since then all new flocks entering Hawaii are certified free of *Salmonella enteritidis*. Michael Duponte, livestock specialist with the College of Tropical Agriculture & Human Resources, heads an ongoing educational and farm visitation program to verify and encourage the continuance of the Egg Quality Assurance Plan on Hawaii's chicken farms.

Q: Are all salmonella cases related to eggs?

A: No. An outbreak of 23 cases in 2001 was related to sprouts. Because salmonella organisms live in the lower intestinal tracts of humans and other

animals, salmonella can be transmitted to humans by foods contaminated with animal feces. Any food that comes in contact with salmonella and is not cooked properly can cause illness.

Q: How quickly can a contaminated egg become a serious health threat?

A: Under the ideal temperature conditions of our tropical climate, a single organism can multiply to a million in just six hours. Refrigeration of eggs slows microbe reproduction to make eggs safer.

Q: How can consumers minimize their risk of salmonella exposure yet still eat eggs?

A: Although the odds are very low for any individual, the risk of illness from salmonella in eggs can be reduced greatly by consuming eggs that are fully cooked. Avoid eggs with cracks as well as eggs whose contents are cloudy. Stay away from uncooked foods made from raw eggs unless you know they were prepared from pasteurized eggs. Some common raw-egg foods are Hollandaise sauce, Caesar salad dressing and meringue topping on pies.

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