

Pet Turtles: Cute But Contaminated with *Salmonella*

The little glassy-eyed creatures may look cute and harmless, but small turtles can make people very ill. Turtles commonly carry bacteria called *Salmonella* on their outer skin and shell surfaces. People can get *Salmonella* by coming in contact with turtles or their habitats.

Salmonella can cause a serious or even life-threatening infection in people, even though the bacteria do not make turtles sick. An example is the 2007 death of a four-week-old baby in Florida linked to *Salmonella* from a small turtle. The DNA of the *Salmonella* from the turtle matched that from the infant.

People infected with *Salmonella* may have diarrhea, fever, stomach pain, nausea, vomiting, and headache. Symptoms usually appear six to 72 hours after contact with the bacteria and last about two to seven days. Most people recover without treatment, but some get so sick that they need to be treated in a hospital.

Who Is at Risk?

Anyone can get *Salmonella* infection, but the risk is highest in

- infants
- young children
- elderly people
- people with lowered natural resistance to infection due to pregnancy, cancer, HIV/AIDS, diabetes, and other diseases

"All reptiles (turtles, lizards, snakes) and amphibians (frogs, salamanders), are commonly contaminated with *Salmonella*," says Joseph C. Paige, D.V.M., a Consumer Safety Officer in the Food and Drug Administration's Center for Veterinary Medicine. "But it is the



Centers for Disease Control and Prevention

Because young children are more vulnerable to the effects of *Salmonella*, since 1975, FDA has banned the sale of turtles with a shell less than four inches long.

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small turtles that most often are put in contact with young children, where consequences of infection are likely to be severe." Because of this health risk, since 1975, FDA has banned the sale of small turtles with a shell less than four inches long.

"Young children are ingenious in constructing ways to infect themselves," says Paige. "They put the small turtles in their mouths or, more often, they touch the turtles or dangle their fingers in the turtle tank water and then put their hands in their mouths. Also, sometimes the tanks and reptile paraphernalia are cleaned in the kitchen sink, and food and eating utensils get cross-contaminated."

Surfaces such as countertops, table-tops, bare floors, and carpeting can also become contaminated with the bacteria if the turtle is allowed to roam on them. The bacteria may survive for a long period of time on these surfaces.

Infection From Turtles on the Rise

Infectious disease specialists estimate that banning small turtles prevents 100,000 *Salmonella* infections in children each year in the United States. But disturbingly, *Salmonella* infections have recently increased because of a resurgence in the sales of small turtles by some pet shops, flea markets, street vendors, and online stores.

From May 1, 2007, to January 18, 2008, the Centers for Disease Control and Prevention (CDC) received reports of *Salmonella* infection in 103 people—most of them children—in 33 states. Fortunately, there were no deaths. However, 24 people were so sick that they landed in the hospital. The investigation showed that most of the sick people were exposed to a tur-

tle (touching, feeding, cleaning habitat, changing water) shortly before they got sick. Two teenaged girls who became ill had been swimming in an unchlorinated, in-ground pool where the family's pet turtles had also been allowed to swim.

Health officials found that the strain of *Salmonella* that caused the outbreak in people was the same strain found on many of the turtles (or their habitats) belonging to those who became ill.

FDA and CDC are working together to determine the source of the turtles causing this outbreak and to stop the distribution of illegal pet turtles. The two government agencies, along with other government and public health partners, held "Salmonella Day" in Atlanta on Jan. 22, 2008, to strategize on how to decrease these preventable infections.

Advice for Consumers

- Don't buy small turtles for pets or as gifts.
- If your family is expecting a child, remove any pet turtle (or other reptile or amphibian) from the home before the infant arrives.
- Keep turtles out of homes with children under 5 years old, the elderly, or people with weakened immune systems.
- Do not allow turtles to roam freely through the house, especially in food preparation areas.
- Do not clean turtle tanks or other supplies in the kitchen sink. Use bleach to disinfect a tub or other place where turtle habitats are cleaned.
- Always wash hands thoroughly with soap and water after

touching any turtles, their housing, or anything (for example, food) that comes in contact with a turtle or its housing.

- Be aware that *Salmonella* infection can be caused by contact with turtles in petting zoos, parks, child day care facilities, or other locations.
- Watch for symptoms of *Salmonella* infection, such as diarrhea, stomach pain, nausea, vomiting, fever, and headache. Call your doctor if you or your family have any of these symptoms. [FDA](#)

For More Information

Reptiles and *Salmonella*
www.cdc.gov/Features/ReptilesSalmonella/

MMWR Weekly: Multistate Outbreak of Human *Salmonella* Infections Associated with Exposure to Turtles—United States, 2007-2008

www.cdc.gov/mmwr/preview/mmwrhtml/mm5703a3.htm

Human Health Hazards Associated with Turtles

Information for Regulators and Public Health Educators

www.fda.gov/cvm/turtlereg.htm