

Turtles remain a potential reservoir for human salmonellosis

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A US, multi-state salmonellosis outbreak involving at least 75 people, many of them children, has been linked to contact with turtles or the environment where turtles are kept. The outbreak should be a reminder about the biosecurity risk turtles represent.

Restrictions on the retail sale and import of turtles in Canada and the US, originally designed to curtail the sale of small turtles representing the greatest risk for children, were never flawless; the main exception being the legal sale of small turtles for scientific, educational and exhibition purposes. During 2001 to 2006, the number of turtles kept as pets in the USA increased 86 percent. The exception proved to be a mechanism by which small turtles entered the retail trade.

In Alberta there are a half-dozen set of laws involved. By regulation, a CFIA permit is required for import from all countries. The mid-80's brought the new Alberta Health Act, which prohibited sale or trade of many species already banned from import. The Alberta Wildlife Act and Species at Risk legislation prohibits possession of additional species. The Alberta Health Act and the federal Plant Protection Act basically prohibited the import or sale of sliders, cooters, painted, map, and snapping turtles. Changes to the Wildlife Act made most turtles legal to own. Other provinces have different laws. For instance, many of the turtles that can't be sold in Alberta, are available from Montreal.

Turtles, like other reptiles, commonly carry *Salmonella*. Fecal carriage rates can be as high as 90 percent. Small turtles sold as pets frequently come from breeding farms, where turtles are housed in crowded ponds and nesting areas in a way that promotes *Salmonella* transmission. Attempts to treat turtles, turtle eggs, and turtle breeding ponds with antibiotics to eliminate *Salmonella* are generally unsuccessful and frequently result in a high prevalence of antibiotic resistance. Other treatments reduce but do not eliminate shedding from turtles and the turtles that continue to shed often re-contaminate other turtles during rearing or shipment. Because shedding is often intermittent and stress related, determining whether turtles are free of the bacteria is difficult.