

Backyard Poultry

[Announcer] This program is presented by the Centers for Disease Control and Prevention.

[Sarah Gregory] Today, I'm talking with Dr. Colin Basler, an epidemiologist with CDC, about keeping live poultry in the backyard. Welcome, Dr. Basler.

[Colin Basler] Thank you for having me.

[Sarah Gregory] So, is poultry the new dog? I know people who have kept their chickens in the house. What's going on here?

[Colin Basler] Over the past 25 years, backyard poultry ownership has become more popular across the United States. Some people like having access to fresh eggs, others have them as an educational opportunity for their kids, and some just like having them as pets. Most people are keeping chickens and other poultry in pens and coops in their backyard. Some people do keep chickens in their house, especially in the early spring when people first get baby chicks and it's still cold outside. We have had reports of people keeping chicks in their bathroom, kitchen, or even their children's bedroom.

[Sarah Gregory] If people find chickens as kissable as a pooch, what's wrong with having them around?

[Colin Basler] This biggest problem is that, as backyard flocks become more popular, we are seeing more *Salmonella* outbreaks linked to contact with live poultry, such as chicks and ducklings. Between 1990 and 2014 there were 53 outbreaks of *Salmonella* linked to backyard poultry. These outbreaks included 2,630 illnesses, 387 hospitalizations, and five deaths. Almost half of those who got sick were children under the age of 10.

It is also important for backyard poultry owners to know that *Salmonella* can live in the intestines of chickens and can survive on feathers for some time. So if you are cuddling or kissing a pet chicken you could easily come in contact with these germs. Even if the chickens look healthy and clean, they can still shed and excrete *Salmonella* in their feces, which can make people sick.

[Sarah Gregory] Is this true of all fowl? Ducks, geese, flamingos?

[Colin Basler] Many different bird species can harbor *Salmonella* in their intestines. Baby poultry, such as chicks and ducklings, are often linked to *Salmonella* illness outbreaks because they may shed or excrete *Salmonella* in greater amounts than adults when stressed. We have also investigated a number of outbreaks linked to backyard ducks and ducklings.

[Sarah Gregory] Tell me about One Health. What is it and how does it relate to people getting sick from their backyard poultry?

[Colin Basler] One Health is the concept that the health of people is connected to the health of animals and the environment and that a collaborative approach across disciplines is needed to improve health.

A One Health approach has been very important for investigating and preventing outbreaks associated with backyard poultry. Doctors, veterinarians, public health officials, environmental health scientists, and laboratorians are just some of the people involved in this issue.

[Sarah Gregory] Why did you do this study? What clued you and the other authors into the problem initially?

[Colin Basler] We decided to do this study because we were seeing more *Salmonella* illness outbreaks associated with backyard poultry. We wanted to document this emerging problem, as well as understand the practices sick people had in common, like touching or kissing pet poultry. This type of information helps us create the right public messages that help reduce illnesses in the future.

For example, upon learning that people who become sick were keeping poultry in their homes, including in their bedrooms, we provided public health messages encouraging people to practice good husbandry practices for raising poultry, including housing them in their own coop instead of keeping them in the house.

[Sarah Gregory] Is this a trend that will continue and possibly grow? And if so, what are the public health consequences?

[Colin Basler] Unfortunately, we are still seeing *Salmonella* outbreaks linked to live poultry. 2016 was a record breaking year with almost 900 people getting sick and three deaths reported in eight separate outbreaks linked to backyard poultry. Unless people are informed about how to own and care for backyard poultry in a way which keeps them and their families healthy, these outbreaks will continue to happen.

[Sarah Gregory] Is there a solution?

[Colin Basler] A very effective solution is education. Forty two percent of the respondents in our study reported that they didn't know of the connection between poultry contact and *Salmonella*. People know that they can get sick from raw or undercooked chicken. We need to let people know that live chickens can carry germs, such as *Salmonella*, that can make them sick. Young children, the elderly, and people who have a weakened immune system are especially vulnerable to getting very sick from a *Salmonella* infection.

We also want to let people know that there are steps they can take to reduce the risk of getting sick from backyard poultry. The main step is washing hands right after touching live poultry. The other steps are: Do not let live poultry inside the house, clean any equipment or materials associated with raising or caring for live poultry outside the house, wear dedicated shoes and clothing when cleaning chicken coops and keep these materials outside of the house, do not

snuggle or kiss live poultry, and finally, do not touch your mouth, eat, or drink around live poultry.

[Sarah Gregory] Thank you, Dr. Basler, for talking with me today. Listeners can read the entire October 2016 article, “Outbreaks of Human *Salmonella* Infections Associated with Live Poultry, United States, 1990–2014”, online at cdc.gov/eid.

I’m Sarah Gregory for Emerging Infectious Diseases.

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