

POULTRY AND PUBLIC HEALTH

Introduction

Keeping backyard poultry can be enjoyable, however, owners should be aware that healthy birds can sometimes carry harmful germs that make people sick. Public health concerns linked to backyard poultry include infection caused by *Salmonella* spp., *E. coli*, *Campylobacter* spp., and avian influenza. These germs can cause a variety of illnesses in people, ranging from minor skin infection to serious illness that can even cause death.

High-risk individuals, such as children less than 5 years of age, adults over 65, pregnant women, and those with weakened immune systems, are more likely to have severe illness.

Whether you are building your first coop or are a seasoned backyard poultry owner, it is important to know the public health concerns associated with keeping poultry and the simple things you and your family can do to stay healthy.

Salmonella

The risk of Salmonella transmitted from healthy chickens to people is very well established. There are outbreaks every year that are traced back to activities that bring people and backyard poultry together. Most people with salmonellosis develop diarrhea, fever, and stomach cramps between 6 hours to 6 days after being exposed. Illness usually lasts 4-7 days, and most people recover without treatment, however, some individuals will require hospitalization. In one recent, multistate outbreak, one-third of the ill were children under 5 years of age.

Avian influenza

Avian influenza, or bird flu, is a contagious respiratory illness caused by influenza viruses. Some avian influenza viruses that primarily circulate in animals can infect people on rare occasion. As with salmonellosis, those with a weak immune system are at high risk for serious flu complications. People who work closely with large numbers of birds, such as commercial poultry producers, are also more likely to get bird flu if their animals become infected.

Birds can be infected with flu viruses without showing symptoms, however, signs of disease can range from decreased egg production to extremely high death rates. Disease in humans can resemble the human seasonal flu, ranging from fever, weakness, poor appetite, and coughing to

serious flu complications, including inflammation of the heart, brain, or muscle tissues, and even multi-organ failure.

Tips for staying healthy around backyard poultry

WASH YOUR HANDS

- DO wash your hands thoroughly with soap and running water for at least 20 seconds immediately after touching birds or anything in the area where birds live. Use hand sanitizer if soap and water are not readily available. You can also put hand sanitizer near your coop for easy access.

BE SAFE AROUND BACKYARD FLOCKS

- DO clean and disinfect any equipment or materials used to raise or care for poultry outdoors (not in your household), including cages and food and water containers

Tips for cleaning poultry cages or enclosures:
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| <ul style="list-style-type: none">• Remove debris first.• Wear work or utility gloves to clean droppings and cages.• Do NOT pick up chicken poop with your bare hands.• Once the surface is generally clean, apply the disinfectant.• Leave the disinfectant on the surface for the time instructed on the label (usually anywhere from 30 seconds to 10 mins).• Rinse well and allow the surface to dry before use. |
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- DO set aside a pair of shoes to wear while taking care of poultry and keep those shoes outside of the house.
- DO set up your coop so there is no runoff to neighboring properties or kid's play areas.
- DO NOT keep chickens or flock supplies inside the house, especially in areas where food or drinks are prepared, served, or stored, such as kitchens or outdoor patios.
- DO NOT put fresh chicken manure directly on food gardens because there is a risk of bacterial contamination. Using [fully composted chicken manure](#) in your garden is safe.
- DO NOT eat or drink in areas where poultry live or roam.
- DO NOT kiss or snuggle your chicken as this can spread germs to your mouth that can make you sick.

SUPERVISE KIDS

Because their immune systems are still developing, young children (<5 years of age) are more likely to get sick from germs commonly associated with poultry.

- DO supervise children around poultry and supervise their handwashing afterwards.
- DO NOT allow young children, or other individuals with weakened immune systems, to touch poultry, including chicks and ducklings, or poultry-related items.
- DO NOT give chicks or ducklings to young children as gifts.

HANDLE EGGS SAFELY

Eggshells can become contaminated with *Salmonella* and other bacteria from poultry poop.

- DO wash your hands after touching bird eggs.
- DO regularly clean the coop, including the floor, nests, and perches. This will help to keep the eggs clean.
- DO carefully remove dirt and debris from eggs using fine sandpaper, a brush, or a cloth.
- DO collect eggs often. Eggs that sit in the nest will become dirty or break.
- DO discard cracked eggs. Bacteria on the shell can more easily enter the egg through a cracked shell.
- DO refrigerate eggs after collection to maintain freshness and slow bacterial growth.
- DO cook eggs until both the yolk and white are firm to an internal temperature of 71°C (160°F) or higher to kill all germs. Raw and undercooked eggs may contain *Salmonella* that can cause illness.
- DO NOT clean warm, fresh eggs because water can pull bacteria into the egg.

KEEP YOUR BIRDS HEALTHY

- DO keep new poultry separate from your flock for at least 30 days.
- DO feed and clean your existing flock BEFORE caring for your new (quarantined) bird(s).
- DO clean your hands, shoes, clothing, and equipment when moving between your existing flock and your new birds. Dedicate a set of gloves, coveralls, and boots for use with quarantined birds.
- DO wash your hands or use alcohol-based hand sanitizer when you go between your existing flock and quarantined birds.
- DO isolate your birds from visitors and other birds.
- DO clean bird housing and equipment regularly to prevent germs from spreading
- DO clean shoes, tools, and equipment to prevent the spread of germs.
- DO clean vehicles and cages used to transport birds.

- DO monitor your flock for early signs of illness to prevent the spread of disease.
- DO contact your veterinarian or local extension agent if any signs of illness are observed in your birds.

Signs of illness in poultry	
<ul style="list-style-type: none"> • Less active than normal • Eat or drink less than normal • Ruffled feathers • Discharge from the eyes or nose • Difficulty breathing 	<ul style="list-style-type: none"> • Runny diarrhea • Produce fewer eggs than normal • Produce discolored, irregular, misshapen eggs • Die unexpectedly of no apparent cause

- DO NOT share poultry tools and equipment with neighbors.

HANDLE BIRDS SAFELY

If you are scratched by poultry, wash the wound with soap and warm water immediately. Seek medical attention if the bird appears sick or is acting unusual OR if the wound or injury is serious or if the wound becomes red, painful, warm, or swollen.

REFERENCES

Centers for Disease Control. CDC Investigating New Outbreaks of Salmonella Infections Linked to Backyard Poultry. CDC Web site May 20, 2021. Available at <https://www.cdc.gov/media/releases/2021/s0520-salmonella-infections-backyard-poultry.html>. Accessed August 13, 2021.

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