

Q&A: Bird flu has spread to cows in Colorado. Is avian influenza a threat?

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The bird flu has arrived in Colorado, and while it doesn't represent anywhere near the threat that COVID-19 did at the beginning of the pandemic, people should take some precautions with animals that could

carry it, experts say.

The Denver Post compiled the latest information on H5N1 highly [pathogenic avian influenza](#), the bird flu virus that has jumped to cows in at least nine states—including Colorado—and has infected a small number of people.

While the virus at this point is only a threat to people who work with animals, scientists are concerned that it could mutate enough to spread between people, possibly sparking another pandemic.

The Colorado Department of Public Health and Environment and the Colorado Department of Agriculture held a virtual town hall on avian flu at 9:30 a.m. Wednesday.

How widespread is the virus in Colorado?

The U.S. Department of Agriculture confirmed H5N1 highly pathogenic avian influenza had reached a dairy cow herd in northeast Colorado as of late April. The state also is investigating a second herd, but hasn't released any information while waiting for testing results.

Cows typically don't get influenza A viruses, the family that includes H5N1, so it was a shock to find they were infected, said Jenna Guthmiller, an assistant professor of immunology and microbiology at the University of Colorado's Anschutz Medical Campus

At least 36 herds across nine states have tested positive, but without routine testing, the virus could be spreading undetected in others.

Over the last two years, some Colorado poultry operations have had to cull their birds (killing and properly disposing of all members of an infected flock to avoid spreading the virus to other farms), and the state

health department has found infected wild birds or mammals in more than half of Colorado's counties. You can reasonably assume that birds in your county also are carrying the virus, even if testing hasn't found it.

Right now, the country doesn't have a clear picture of how widely the virus has spread, particularly among cattle and people who work with them, Guthmiller said. Cows often have mild symptoms and may be able to spread the virus even if they're asymptomatic, she said.

"The major concern right now is still in dairy farm workers," she said.

'Highly pathogenic' sounds worrisome. How concerning is this virus?

The name refers to the [high mortality rate](#) among poultry. It doesn't appear to make cows severely ill, however, and we don't know how bad it could be for people.

A separate subgroup of H5 avian influenza, found in Asia in the 1990s, presented an official human mortality rate of about 50%. The subgroup that's spreading now has caused 13 confirmed human cases worldwide and one death, though given the lack of testing, other cases may have flown under the radar, Guthmiller said. (Flu viruses are named based on two types of proteins on their surfaces. The current subgroup and the high-mortality one in Asia share one major protein—H5—but have different forms of the second protein.)

So far, we only know of two human cases in the current U.S. outbreak: a poultry worker in Colorado in 2022 and a dairy worker in Texas this year. Both had mild symptoms and recovered.

So far, the current avian flu hasn't picked up mutations that would allow

it to spread efficiently between humans in the way that the seasonal flu does. As it infects more mammals, however, it gets additional chances to adapt to bodies that are closer to our own. Scientists are watching for infections in pigs, in particular, because they can carry multiple types of flu viruses, which could swap genes and grant each other new abilities.

"The concern is that if H5N1 spilled over to humans, it could cause a pandemic and stay with us" as another seasonal flu virus, Guthmiller said.

Is the food supply safe?

Farmers are required to dispose of eggs and meat from infected birds. Since the virus is so severe in poultry, the odds of products slipping through because no one realized the birds were sick are extremely low.

Scientists found fragments of the [bird flu virus](#) in milk from grocery stores, but couldn't grow any live viruses, meaning the process of heating the milk to kill bacteria also killed the virus. Other products made with pasteurized milk also are safe to eat.

Raw milk might not be safe, however, because it hasn't undergone pasteurization to kill viruses and bacteria. (This made drinking it a risky decision even before the avian flu started to infect cows.) Cats in Texas died of neurological symptoms related to bird-flu infection after drinking raw milk, though researchers couldn't rule out that they could have caught the virus by eating wild birds.

Colorado doesn't allow sales of raw milk, though people in "cowshare" programs can receive it from the cow they partially own.

A sampling of ground beef from animals in states with avian influenza dairy outbreaks didn't find the virus in meat, according to the U.S.

Department of Agriculture, though other studies are ongoing to find out if the virus could get into muscle tissue in cattle.

What are the state and federal governments doing?

Veterinarians in Colorado have to report flu-like illnesses in cattle, and can request testing of herds.

The federal government also requires testing a sample of cows when moving a herd of lactating animals between states. It exempts calves and adult cows not involved in milk production. (The current leading theory is that the virus is spreading between cows during the milking process.)

On Monday, the Centers for Disease Control and Prevention asked state health departments to work on distributing personal protective equipment to dairy and poultry farms, as well as slaughterhouses. Workers aren't required to wear masks and other protection, however.

States and the federal government could do a better job working with people whom farmers trust, such as local veterinarians, to increase testing, Guthmiller said. Right now, farmers don't see a reason to invite attention, because H5N1 isn't causing significant harm to their herds, she said.

"There's the presumption it's controlled," she said.

What should I do?

The Colorado Department of Agriculture advises people who own domestic birds to keep them away from [wild birds](#), and report any unusual illnesses or deaths.

The agency also said people and pets should avoid contact with sick or dead birds. If you have to remove a dead bird from your property, wear gloves and a mask, and place the bird in two bags. Then immediately throw out the bird, mask and gloves, and thoroughly wash your hands.

People who spend time around cattle or raw milk should monitor themselves for flu-like symptoms or eye inflammation, Guthmiller said. Most clinics don't have the ability to test for specific influenza subtypes, so people with risk factors need to tell them so they can send the sample to a lab that does, she said.

"You should go to a clinic to be seen and report these risk factors," she said.

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