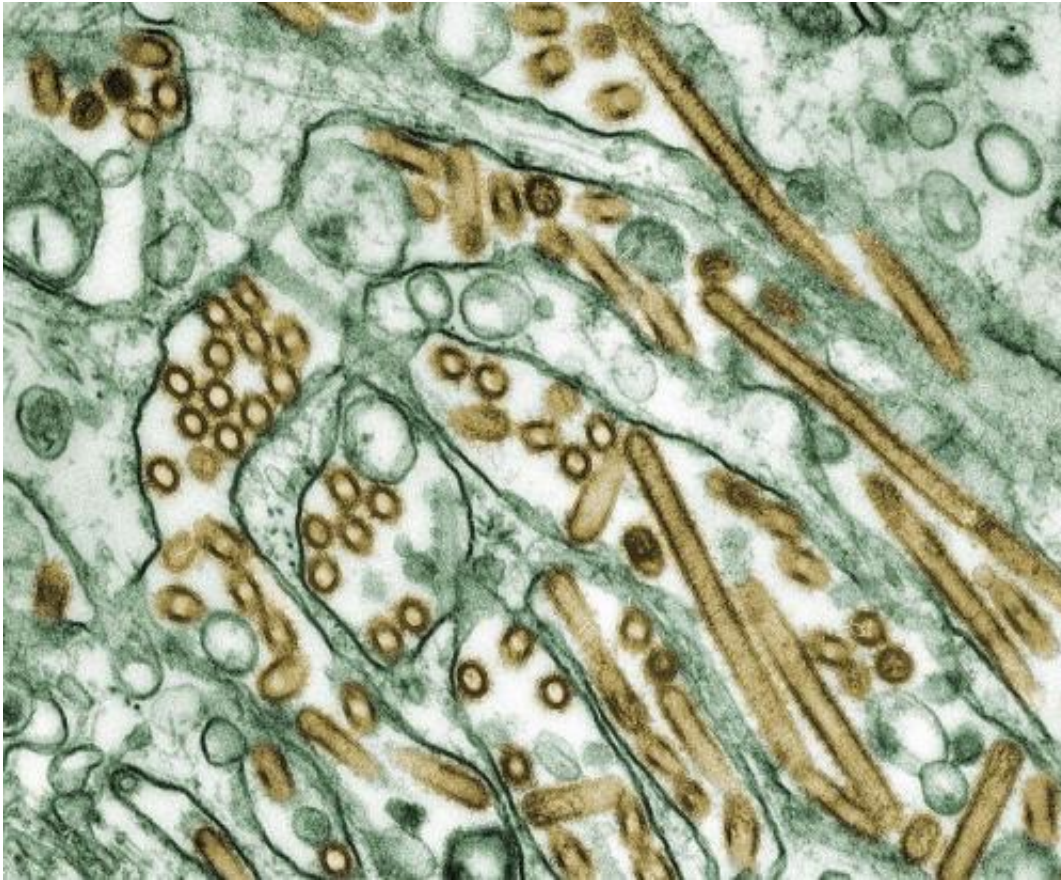


Bird flu in humans? Experts see little risk

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Colorized transmission electron micrograph of Avian influenza A H5N1 viruses.
Credit: Public Domain

The discovery of traces of the bird flu virus in pasteurized cow milk in the United States sparked questions over whether the disease could spread to humans, but experts say there is little risk from food contamination.

US authorities on Tuesday said that they had discovered traces of [bird flu](#) virus in the cow milk supply during the course of a large study, but the samples likely posed no health risk to humans.

What do we know?

An outbreak of Highly Pathogenic Avian Influenza (HPAI) has spread among dairy cattle herds throughout the United States and infected one human, who had [mild symptoms](#), authorities said.

Though the H5N1 strain of HPAI has killed millions of poultry during the current wave, affected cows have not fallen severely sick.

The US Food and Drug Administration said that during the course of a national survey, it had discovered viral particles in "milk from affected animals, in the processing system, and on the shelves".

But the samples were run through a quantitative polymerase chain reaction (qPCR) test, which is able to detect remnants of the pathogen's [genetic material](#)—though the virus itself was inactivated by the heat of the pasteurization process.

How did it happen?

The bird flu A/H5N1 strain first appeared in 1996 but since 2020 the number of contaminated bird populations has exploded, and a growing number of mammals have since been infected.

In March, both cows and goats joined the list, a surprise for experts because until now the animals had not been considered at risk of catching this type of virus.

"In the United States, a new H5N1 virus has intermingled with local viruses, and has the ability to multiply extremely rapidly in a cow's udder," said Jean-Claude Manuguerra, director of the environment and infection risks department at the Pasteur Institute in Paris.

But even though H5N1 has killed millions of poultry during the current wave, infected cows have not become seriously ill.

Pandemic risk?

Based on studies to date, most experts say that even if the bird flu virus spreads to a human, the chances of widespread contamination are slim.

"Is the fact that virus traces have been found in [cow milk](#) worrying? No, although the fact that another animal is susceptible to contamination by this virus is not good news," said Bruno Lina, a virologist at the Lyon hospital in southeast France.

"There's a risk of random cases, in animals or humans. But we're not seeing any major mutation of the virus that would lead to a greater pandemic risk than three or four months ago," he said.

Human health threat?

US authorities said earlier in April that a person working on a [dairy farm](#) in Texas was recovering from bird flu after being exposed to cattle.

The symptoms were mild, with only an [eye infection](#), after being in direct contact with a cow.

"What we know is that the virus can cause in humans an infection in two specific places: an eye infection—which is mild—or in the pulmonary

alveoli, the deepest parts of the lung," Lina said.

In the latter case, the infection can prove serious—of the roughly 900 cases of H5N1 documented in humans over the past 20 years by the World Health Organization, half have ended in death.

But when it comes to drinking pasteurized milk, the risks drop to nearly zero even if virus traces are found.

"Pasteurization destroys the virus even if it doesn't eradicate every trace of its presence," Lina said.

What about raw milk?

Several countries such as France are fond of their raw chesses, but experts note that the sanitary conditions of their production are strictly controlled.

"Has anyone ever been exposed to non-pasteurized milk contaminated by H5N1, and developed an infection by the normal means of consumption, the mouth or digestive tract? It's never been demonstrated," Lina said.

And for now, the latest virus strain discovered in the United States is different from those currently circulating in Europe, said Manuguerra.

And no H5N1 infections have so far been found in French cows for example, he said.

"The warning has been sounded, there is extra vigilance—and these viruses can mutate so rapidly that you have to keep an eye on them," he added.

"But I think that consumers should absolutely not be worried."

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