Misinformation about flu viruses in cow's milk spreads faster on TikTok than any real viral infection

Coffee Beans

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In early April this year, the first of a series of outbreaks of avian influenza (H5N1) in dairy cows was confirmed in the US. Subsequently, the CDC (Centers for Disease Control and Prevention), based in Atlanta, USA, confirmed this viral infection in a farmer who had been in close contact with dairy cattle (State of Texas). This is the second known human case of this infection ever captured and laboratory confirmed in the United States (1). The previous case occurred in 2022 in Colorado (3).

Human infections with avian influenza A viruses, including H5N1 viruses, are uncommon but occur sporadically around the world. These human illnesses range in severity from mild (e.g., eye infections, upper respiratory tract infection symptoms) to severe (e.g., pneumonia), which can lead to death of the infected individual. Infection of humans with avian influenza virus most often occurs after close or prolonged unprotected contact (i.e. without the use of gloves or respiratory or eye protection) with infected birds or sites contaminated with their saliva or faeces. Very rarely, humans have previously been infected with avian influenza virus via an animal intermediary, including cats and cows. The virus enters the human body by inhalation or through the mucous membranes of the eyes, nose or mouth (1, 2).

Based on the initial detection of avian influenza transmission to farmers, follow-up tests were conducted in U.S. states in the second half of April 2024, which showed infection with avian influenza virus in more than fifty additional cow herds. In this context, a situation has also been documented where more than half of the domestic cats on a Texas farm died after drinking raw milk from cows infected with the H5N1 virus (2).

And it is unpasteurised raw milk that has great appeal to that part of our human population that demands 'natural' untreated food. There are a number of posts on social media by the now so trendy influencers that deal with healthy eating. For example, model Liz Siebert, who has over a million followers on TikTok, made videos last year about how drinking fresh unpasteurized milk from an Amish farm helps keep her in great shape and reduces the allergy symptoms she claims to suffer from. Eating raw milk is also a big hit among fitness influencers (4).

"People are seeing more and more influencers talking about raw milk," says Jessica Gall Myrick, a professor of health communication and media psychology at Penn State University. As a result, more people are buying raw milk. Ambrook Research reports that its sales in the United States have increased by nearly a dozen percent. In TikTok videos, some influencers admit that there are people

who find their obsession with raw milk bizarre or even dangerous, but they still claim that they drink it because it improves their health. So apparently they are not worried about diseases such as salmonellosis, listeriosis, tuberculosis, diphtheria or typhoid fever. "Seeing an attractive influencer claiming to be healthier and happier by drinking raw milk can inspire people and give them hope for a similar outcome. The more people open this type of content promoting raw milk consumption on their social media accounts, the more the relevant algorithms favour these messages," Professor Myrick (5) argues. Fortunately, many states still don't allow raw milk to be sold in stores, except for some farms, so people inspired by influencers can't easily access this food. Fortunately, "likes" and social media sharing are not keeping the relevant public health regulators sane (for now, that is).

The process of pasteurising milk clearly eliminates the risk of infections. Fresh milk does not go through this process, so consuming it exposes both humans and animals to the risk of contracting not only the H5N1 virus, but also other viruses and bacteria that may be present in fresh milk. Pasteurisation is effective. It is a method that has been successfully used for more than 100 years to destroy pathogens in milk by heating the milk to a temperature of at least 71.7 °C for 15 seconds (7). This denatures key proteins and enzymes necessary to maintain pathogen viability. Although inanimate pathogens or fragments of their bodies are detectable in pasteurised milk by technically demanding laboratory molecular biological methods, they are completely harmless to humans. When such analyses are undertaken by lay people without the appropriate professional training, there is a complete misunderstanding, misinterpretation of the results of studies and the dissemination of nonsensical claims such as 'pasteurised milk is contaminated with viruses, e.g. avian influenza' (8-10).

Given the worldwide spread of avian influenza virus and the current prevalence of this pathogen in dairy cows in the United States, it is therefore very important that in any country in the world, including the Czech Republic, an information campaign is conducted to explain to the population that the basic defence against infection is to consume only pasteurised products. The claim that pasteurised milk can transmit bird flu and cause infection is typical misinformation that contradicts scientific evidence and the expert opinions of health authorities. Unfortunately, even in the Czech Republic there is a growing interest in unpasteurised milk, often considered a healthier alternative, especially among some mothers. It is therefore important to work very carefully with the information published, for example, on the website "lovime.bio" in the article "Do not be afraid of unpasteurised farm milk, it has many health benefits"(12), in the context of the above facts.

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11. Nebojte se nepasterizovaného mléka z faremní produkce, má řadu zdravotních benefitů | Lovime.bio

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