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By Kayla Rivas, Fox News

Live coronavirus found on meat, seafood weeks later, researchers say

WHO officials have said people should not fear contracting the virus from food or food packaging

After recent coronavirus outbreaks occurred in areas otherwise virus-free for some months, researchers sought an explanation.

A puzzling new cluster of coronavirus cases recently resurfaced in New Zealand, for instance, after more than 100 days free of local transmission. Several members of a household in Auckland tested positive earlier in August, though the source of the infections has since stumped officials. There was no history of overseas travel among the infected cluster, leaders had said. Some of those infected work at an Auckland refrigerated food facility, leading to speculation the virus could have survived from abroad on chilled or frozen food.

On Monday, New Zealand officials reported nine new cases of COVID-19, including one probable case, all of which were linked to the Auckland cluster. There are 123 active infections, and 151 people linked to the cluster have been moved into an Auckland quarantine facility, including 82 people who tested positive and their household contacts, officials wrote.

“To date, despite comprehensive testing at the border, comprehensive work within our isolation facilities, we have as yet not been able to find what occurred here. We continue to look,” Jacinda Ardern, New Zealand prime minister, said at a press conference on Monday.

Researchers from Singapore and Ireland published a study in bioRxiv last week, exploring the possibility of infectious virus lingering on imported foods as a plausible reason for the virus resurgence in Vietnam, New Zealand and parts of China. The study was not certified by peer review.

The team added SARS-CoV-2 to sliced cubes of salmon, chicken, and pork sourced from supermarkets in Singapore and stored the samples at three different temperatures (4°C, –20°C and –80°C) and harvested at specified time points (1, 2, 5, 7, 14 and 21 days post-inoculation), study authors wrote.



Researchers say their findings, as well as other reports, "should alert food safety competent authorities and the food industry of a 'new normal' environment where this virus is posing a non-traditional food safety risk." (iStock)

They found that the food was still contaminated with the virus three weeks later in both the refrigerated (4°C) and frozen (−20°C and −80°C) samples.

"When adding SARS-CoV-2 to chicken, salmon, and pork pieces there was no decline in infectious virus after 21 days at 4°C (standard refrigeration) and −20°C (standard freezing)," they wrote.

"We do know from studies overseas that actually, the virus can survive in some refrigerated environments for quite some time," Ashley Bloomfield, New Zealand director-general of health, said in mid-August, per the Associated Press.

However, the World Health Organization (WHO) officials have previously said there's no need to fear the possibility of contracting the virus from food or food packaging.

"People should not fear food, or food packaging or processing or delivery of food," Mike Ryan, the executive director of the WHO Health Emergencies Programme, said this month, according to Reuters.

The researchers from Singapore and Ireland argued that though the risk of transmission is minimal, its potential to spur an outbreak still exists.

"While it can be confidently argued that transmission via contaminated food is not a major infection route, the potential for movement of contaminated items to a region with no COVID-19 and initiate an outbreak is an important hypothesis," they wrote.

"It is necessary to understand the risk of an item becoming contaminated and remaining so at the time of export, and of the virus surviving the transport and storage conditions," they added.

Working conditions at meat processing plants have been attributed to virus transmission due to prolonged close contact between workers, poor ventilation, crowding, and shouting, as the researchers also noted. Operations were temporarily paused across meat processing facilities amid the pandemic in the U.S. as workers became infected.

Study authors hypothesized that "with a significant burden of virus present in infected workers and the environment, then contamination of meat with SARS-CoV-2 is possible during butchering and processing."

Virus-infected chicken wings made headlines less than two weeks ago when a batch of frozen chicken wings exported from Brazil to China was positive for coronavirus. Several days prior, Chinese officials in the city of Yantai announced the virus was found on the packaging of frozen seafood shipped from Ecuador.

Officials sealed off the goods and those who handled the seafood were under quarantine and tested negative, the government said.

The researchers from Singapore and Ireland said their lab work shows the virus can endure the time and temperatures associated with transportation and storage conditions for international food trade.

"We believe it is possible that contaminated imported food can transfer virus to workers as well as the environment. An infected food handler has the potential to become an index case of a new outbreak," study authors wrote.

As for the virus outbreak in New Zealand, some of the infections were reported among workers at the Auckland Americold facility, and surface testing was reportedly underway last week.

"Our findings, coupled with the reports from China of SARS-CoV-2 being detected on imported frozen chicken and frozen shrimp packaging material, should alert food safety competent authorities and the food industry of a 'new normal' environment where this virus is posing a non-traditional food safety risk," study authors wrote.

Fox News' Madeline Farber, Greg Norman, Peter Aitken, Bradford Betz and The Associated Press contributed to this report.