

13 August 2020

New Zealand Food Safety Scientific Opinion on Covid-19 transmission through food packaging

Currently there is general consensus that the risk of COVID-19 transmission by food or food packaging is negligible and does not warrant application of specific risk management measures. This consensus results from epidemiological observations from the large number of global cases, the limited ability of the organism to survive on inanimate surfaces and the unlikely probability that an infectious dose would survive and be transmitted in food packaging scenarios, especially that moving in international trade. In terms of presence only, China implemented a testing programme for imported food packaging in July 2020 and it is our understanding there have only been 6 positives from over 200,000 tests run. Further these testing results do not determine presence of infectious particles.

A comprehensive review of the published literature on transmission risks, in particular for foodborne transmission of SARS-Cov-2 and related viruses was reported by the New Zealand Food Safety Science Research Centre in July and found no evidence of transmission of COVID-19 through food or food packaging.

Current regulatory statements on negligible risk:

WHO: Covid-19 and food safety: guidance for food businesses, April 2020

"There is no evidence to date of respiratory viruses being transmitted by food or food packaging"

UKFSA: Qualitative risk assessment on the risk of food or food contact materials as a transmission route for SARS-CoV-2, June 2020

"Consumer consumption of food or handling food contact materials is VERY LOW (very rare but cannot be excluded)"

Canada CFIA Monthly Reports: Contamination of food or food production and handling

"Risk remains very low"

US FDA website, 29 July 2020

"At this time, there is no evidence of transmission of the COVID-19 virus, a respiratory virus, through food or food packaging, and the FDA does not anticipate that food products would need to be recalled or be withdrawn from the market because of COVID-19"

US CDC website, 25 June 2020

"Currently, no cases of COVID-19 have been identified where infection was thought to have occurred by touching food, food packaging, or shopping bags"

Survivability on inanimate surfaces:

Current knowledge on the likely survivability of SARS-Cov-2 outside the host is limited but there is evidence that it could be up to a day on cardboard and up to three days on plastic or stainless-steel

surfaces. Even with limited survival there is no evidence that there would be sufficient infectious particles to constitute and transfer an infectious dose in a food packaging exposure scenario.

Conclusion

At this time, we conclude that the risk of COVID-19 transmission by food or food packaging is negligible and does not warrant application of specific risk management measures.

In providing guidance to food businesses on preventing person-to-person transmission, New Zealand Food Safety is of the view from the scientific literature and from the recent experience of global public health authorities that transmission by airborne droplets and aerosols is by far the dominant pathway.

Supporting references

Emanuel Goldman. Exaggerated risk of transmission of COVID-19 by fomites. The Lancet Infectious Diseases, 2020, Volume 20, Issue 8, 892 – 893.

Neeltje van Doremalen, Trenton Bushmaker, Dylan H. Morris, Myndi G. Holbrook, Amandine Gamble, Brandi N. Williamson, Azaibi Tamin, Jennifer L. Harcourt, Natalie J. Thornburg, Susan I. Gerber, James O. Lloyd-Smith, Emmie de Wit, Vincent J. Munster. Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1. New England Journal of Medicine, 2020; DOI: 10.1056/NEJMc2004973