

Chickensplash! Exploring the health concerns of washing raw chicken

September 26 2022



Credit: Pixabay/CC0 Public Domain

Health experts recommend against washing chicken before cooking it because that can spread harmful bacteria. But if you're among the nearly 70% of people who do, according to a [survey](#) of U.S. grocery shoppers,

there are ways to make it safer.

Many cooks continue to wash [raw chicken](#) despite this warning, however, and there is a lack of scientific research assessing the extent of microbial transmission in splashed droplets. In a study recently published in the *Physics of Fluids*, scientists used large agar plates to confirm that bacteria can be transferred from the surface of raw chicken through splashing.

Scientists also identified and created a phylogenetic tree of the bacteria present on the chicken and the bacteria transferred during splashing. While no food-borne pathogens were identified, they note that organisms in the same genera as pathogens were transferred from the chicken surface through these droplets.

Raw chicken can be fouled by Salmonella and other bacteria that can cause [foodborne illnesses](#). Even minor splashing may contaminate sinks with germs that can spread through contact with other foods and hands

Researchers showed that faucet height, flow type, and surface stiffness play a role in splash height and distance. Using high-speed imaging to explore splashing causes, they found that increasing faucet height leads to a flow instability that can increase splashing. Furthermore, splashing from [soft materials](#) such as chicken can create a divot in the surface, leading to splashing under flow conditions that would not splash on a curved, hard surface.

"We conclude that washing raw chicken does risk pathogen transfer and cross-contamination through droplet ejection, and that changing washing conditions can increase or decrease the risk of splashing," says Dr. Chlumsky, a researcher from University of Chemistry and Technology in Prague.

More information: Caitlin D. Carmody et al, Chickensplash!
Exploring the health concerns of washing raw chicken, *Physics of Fluids*
(2022). [DOI: 10.1063/5.0083979](https://doi.org/10.1063/5.0083979)

Provided by University of Chemistry and Technology Prague

Citation: Chickensplash! Exploring the health concerns of washing raw chicken (2022, September 26) retrieved 19 April 2024 from <https://phys.org/news/2022-09-chickensplash-exploring-health-raw-chicken.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.