

March 14th, 2020

Read and annotate the text. Then, respond to the prompt, citing evidence from the text.

Microbes are all tiny living organisms that may or may not cause disease.

Germs, or pathogens, are types of microbes that can cause disease.

Wet your hands with clean, running water (warm or cold), turn off the tap, and apply soap.

Why? Because hands could become recontaminated if placed in a basin of standing water that has been contaminated through previous use, clean running water should be used ¹. However, washing with non-potable water when necessary may still improve health ³. The temperature of the water does not appear to affect microbe removal; however, warmer water may cause more skin irritation and is more environmentally costly ⁴⁻⁶.

Turning off the faucet after wetting hands saves water, and there are few data to prove whether significant numbers of germs are transferred between hands and the faucet.

Using soap to wash hands is more effective than using water alone because the surfactants in soap lift soil and microbes from skin, and people tend to scrub hands more thoroughly when using soap, which further removes germs ^{2,3,7,8}.

To date, studies have shown that there is no added health benefit for consumers (this does not include professionals in the healthcare setting) using soaps containing antibacterial ingredients compared with using plain soap ^{9, 10}. As a result, FDA issued a final rule in September 2016 that 19 ingredients in common “antibacterial” soaps, including triclosan, were no more effective than non-antibacterial soap and water and thus these products are no longer able to be marketed to the general public. This rule does not affect hand sanitizers, wipes, or antibacterial products used in healthcare settings.

Rinse your hands well under clean, running water.

Why? Soap and friction help lift dirt, grease, and microbes—including disease-causing germs—from skin so they can then be rinsed off of hands. Rinsing the soap away also minimizes skin irritation ¹⁵. Because hands could become recontaminated if rinsed in a basin of standing water that has been contaminated through previous use, clean running water should be used ^{1, 12}. While some recommendations include using a paper towel to turn off the faucet after hands have been rinsed, this practice leads to increased use of water and paper towels, and there are no studies to show that it improves health.

This text was taken from the CDC - <https://www.cdc.gov/handwashing/show-me-the-science-handwashing.html>

Prompt: Is it necessary to leave the faucet running while you wash your hands? Explain, using evidence from the text.