

# SOLUTION

Hand washing and the use of hand sanitizers have been found as a very effective agent in order to eradicate the diseases covid- 19 and gastrointestinal infections. The human skin normal flora has been reported to play an essential role in resisting infection from non-resident pathogenic microorganism and in maintaining health by contributing to innate defense of the skin. These observations have inspired speculation that the use of common hand washing techniques may be detrimental to the epidermal antibacterial defense system by altering the normal flora of the skin. Eventually, people are now more interested to use hand sanitizer more frequently instead of only hand washing due to its better performance to prevent COVID-19 which far outweigh the potential risks to our skins microbiome. One aspect of hand sanitizers that is usually overlooked is that they can affect bodies microbiomes in few ways, and some of these ways could be bad. While they are killing potentially dangerous microbes, they are also altering the communities of beneficial bacteria on the resident skin flora such as Staphylococcus aureus, Staphylococcus epidermidis and Enterococcus faecalis. Millions of bacteria reside on our hands, skin, and inside our guts. When we use hand sanitizers, we are attempting to kill off almost every microbe that resides on our hand- the good and the bad. As a result, many companies have now launched varieties of hand sanitizers in the market without verifying the proper concentration and activity of the products which is making huge dissatisfaction among the customers.

In addition, hand sanitizers contribute to antibiotic resistance. Even though they generally do not contain standard antibiotics, when microbes become sanitizers this can make it easier for them to be resistant to more important antibiotics. So I recommend that people use hand sanitizers with caution, and only if really needed but in what situation we are now using a hand sanitizer is best for now and the three most common effective hand sanitizers are purell, Dettol and savlon.