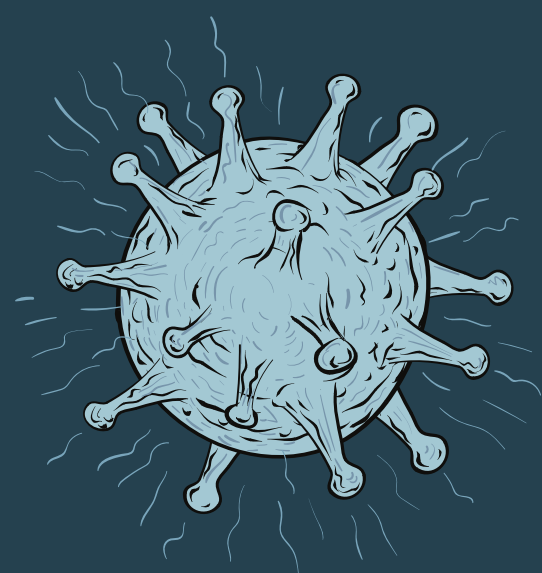
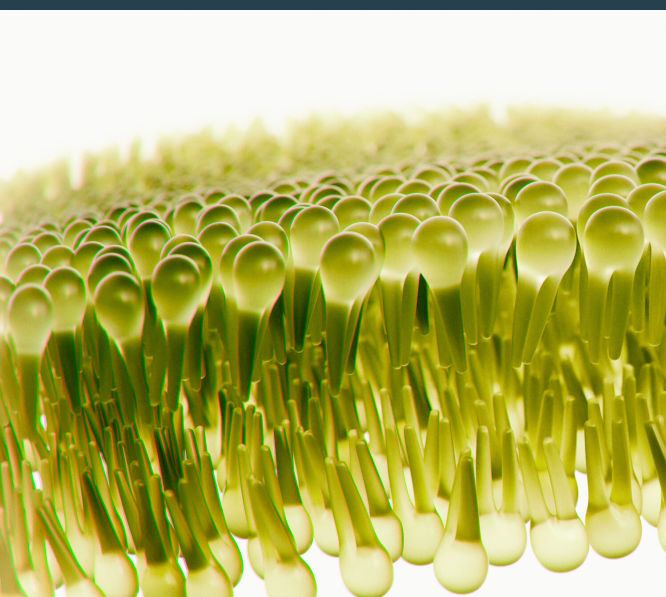


# WHY WASHING YOUR HANDS WORKS



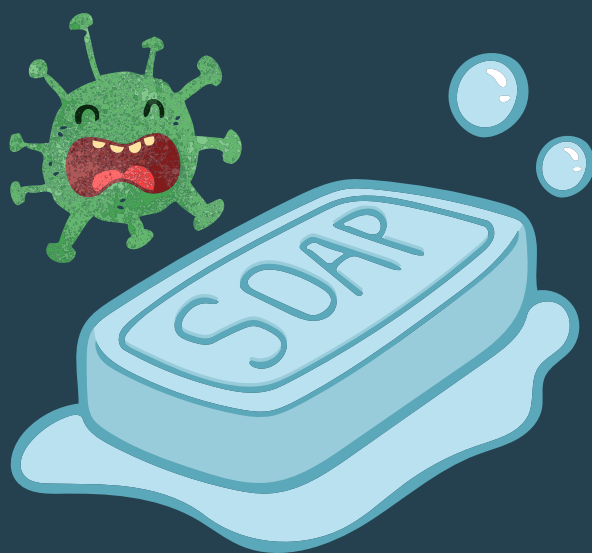
## Structure of the virus

COVID-19 has a protective covering surrounding itself called a lipid bilayer.



## What is a lipid bilayer?

A lipid bilayer consists of several individual molecules packed tightly together. Each molecule has two different components on each end. The end exposed on the outside loves water (hydrophilic). The inner side abhors water (hydrophobic). Due to the tightly packed nature, the hydrophilic side protects the inner hydrophobic side.



## Soap molecules

Soap molecules also have hydrophilic and hydrophobic structures. The similar structures of the virus lipid bilayer and the soap molecules increases the attraction the virus' lipid bilayer has to the soap molecules. Meaning, the hydrophilic side sticks to the hydrophilic portion of the soap molecule, exposing the hydrophobic side. The hydrophobic side then sticks to the soap's hydrophobic side. The lipid bilayer dissolves, killing the virus.



## Hand Sanitizer

Hand sanitizer containing 60-95% alcohol is another method to kill the virus. The alcohol is an antiseptic meaning it has the capability of killing the virus. However, if your hands are visibly dirty, you should wash your hands instead of using hand sanitizer.



## Website Link

<https://www.sciencefocus.com/news/coronavirus-can-hand-washing-really-stop-the-spread-of-covid-19/>

Check out this link on how to wash your hands:

[https://www.youtube.com/watch?v=yQIKBi\\_s6k&feature=youtu.be](https://www.youtube.com/watch?v=yQIKBi_s6k&feature=youtu.be)