

# How soap annihilates a virus

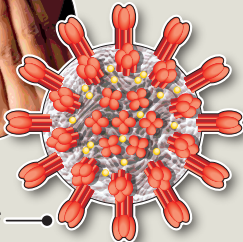
Viruses are a package of nucleic acid bundled inside a collection of lipids and proteins which can include a fat-based viral envelope – soap can destroy a virus from your hands before it can lead to infection



**Sars-CoV-2 virus**

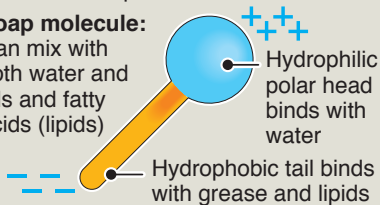
*Protein spikes* —  
Virus relies on spike to enter human cell and replicate

◀ **Infection:** Studies show that people on average touch their faces 23 times per hour, including 10 contacts with eyes, nose or mouth – infection points of coronavirus



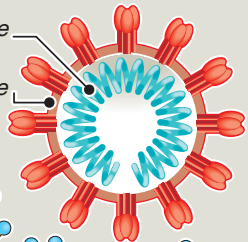
## Soap molecule:

Can mix with both water and oils and fatty acids (lipids)

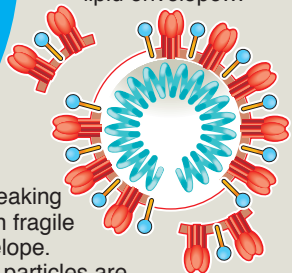


*Virus genome*

*Protective lipid envelope*



Soap molecules in water bind to lipid envelope...



...breaking down fragile envelope.  
Viral particles are washed away by water

**Destruction of virus takes at least 20 seconds**



## Hand sanitizers:

Vigorous hand-clean with alcohol-based sanitiser with alcohol concentration of at least 60% is good alternative