

Making a virus less infectious

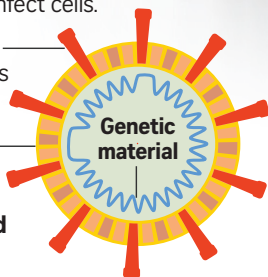
The use of soap and other disinfectants can help to break the structure of the coronavirus. This makes the virus unable to infect a host.



The coronavirus has a membrane of oily lipid molecules, which is studded with proteins that help the virus infect cells.

Spike protein
(helps the virus enter cells)

Lipid membrane and other proteins



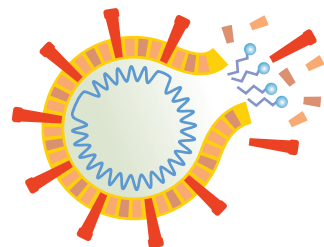
Soap molecules have a hybrid structure, with a head that bonds to water and a tail that avoids it.

Hydrophilic head
(bonds with water)

Hydrophobic tail
(avoids water, bonds with oil and fat)



Soap destroys the virus when the water-shunning tails of the soap molecules wedge themselves into the lipid membrane and pry it apart.



Soap traps dirt and fragments of the destroyed virus in tiny bubbles called micelles, which wash away in water.

