



Aerosols and droplets: Why a mask is a necessary hygienic precaution!

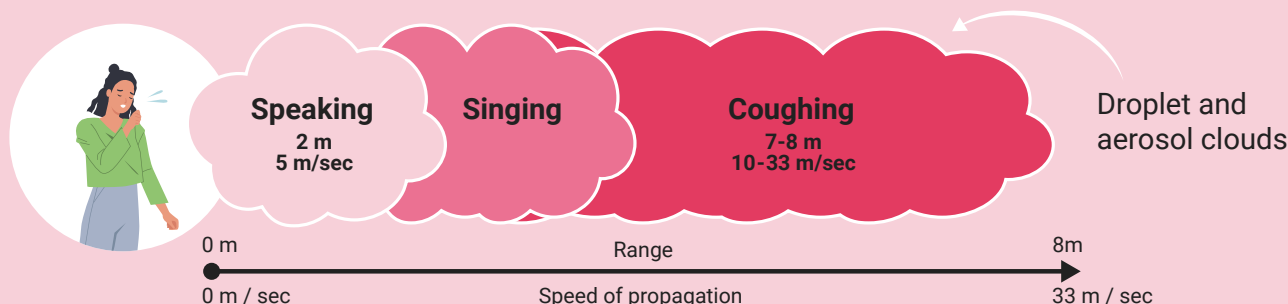
Size Comparison

Diameter in μm ($1\mu\text{m} = 0.001\text{ mm}$)

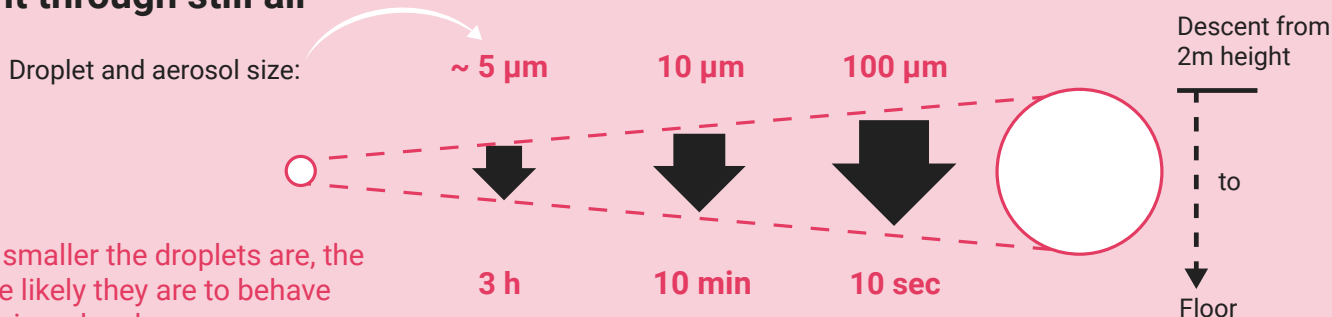


Speaking - Singing - Coughing uncontained

Source: JAMA (2020)
Cambridge University Press (2009)



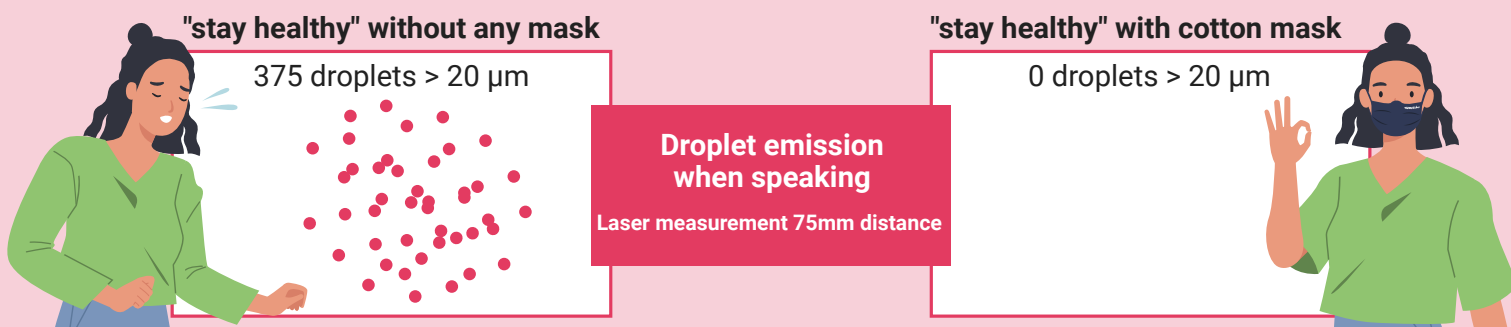
Descent through still air



The smaller the droplets are, the more likely they are to behave like air molecules...

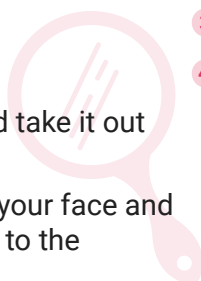
Demonstrated benefit of cotton Masks

Source: New England Journal of Medicine (2020)



Experiment for adults and children Make your aerosols visible

- Put a small mirror in the refrigerator and take it out after a minute.
- Hold the mirror about 10 cm in front of your face and breathe on it. The mirror will fog up due to the aerosols in your breath.



- Repeat step 1 while putting on your cotton mask.
- Now try step 2 again. With a good mask it is impossible to fog up the mirror - aerosols are deflected with the air flow through the mask and intercepted.