

Providence St. Joseph Health

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### Are you still on the fence about wearing a mask?

Richard Davis

*Department of Microbiology, Providence Sacred Heart Medical Center*

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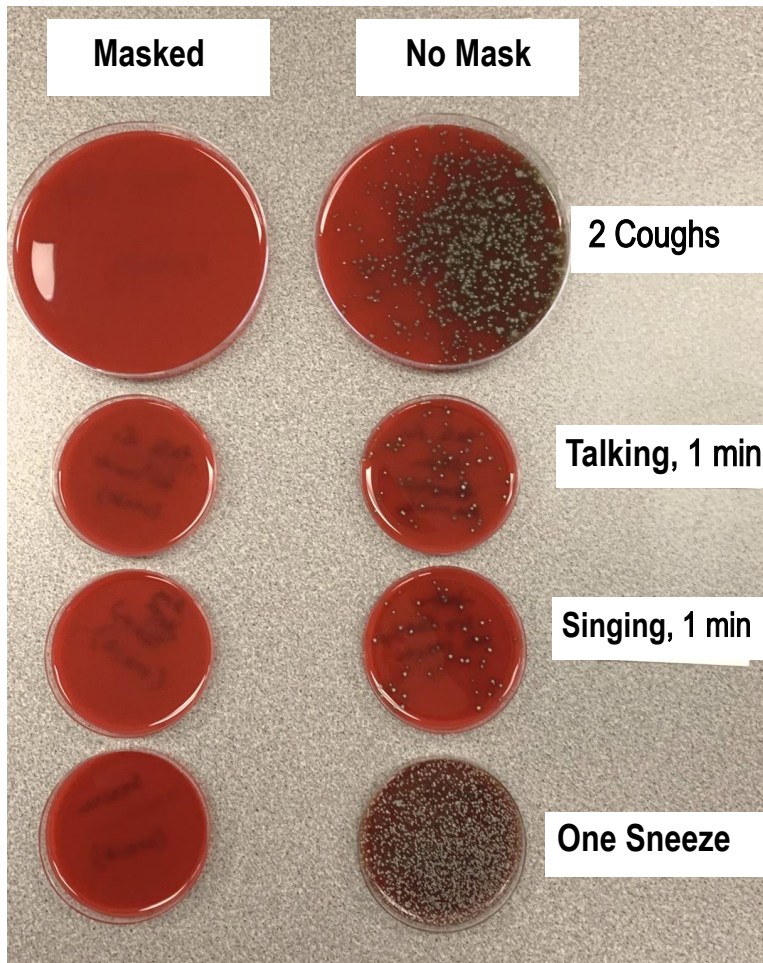
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**Microbe-containing droplets are produced by coughing, talking, singing and sneezing.  
Masks are effective at blocking most of these droplets, even when up close.**

Demonstration: To show the effect of mask use during different behaviors, a bacteria culture plate was held ~1 ½ feet in front of a person's mouth. Droplets from the upper respiratory tract and mouth landed on the plates and after culturing for 24 hours, colonies of bacteria (not viruses\*) can be seen.

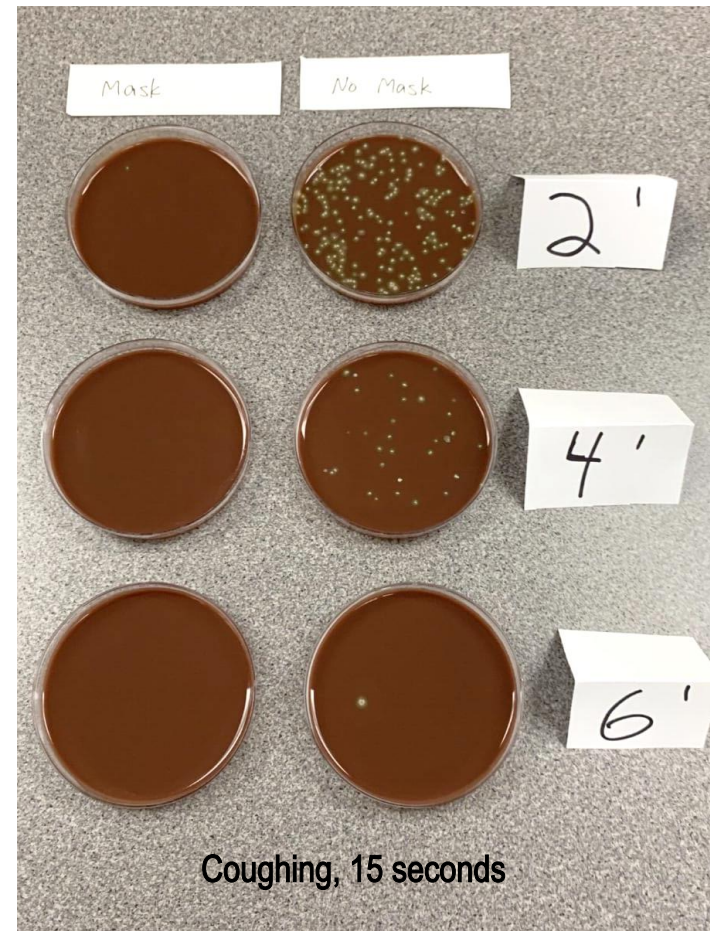
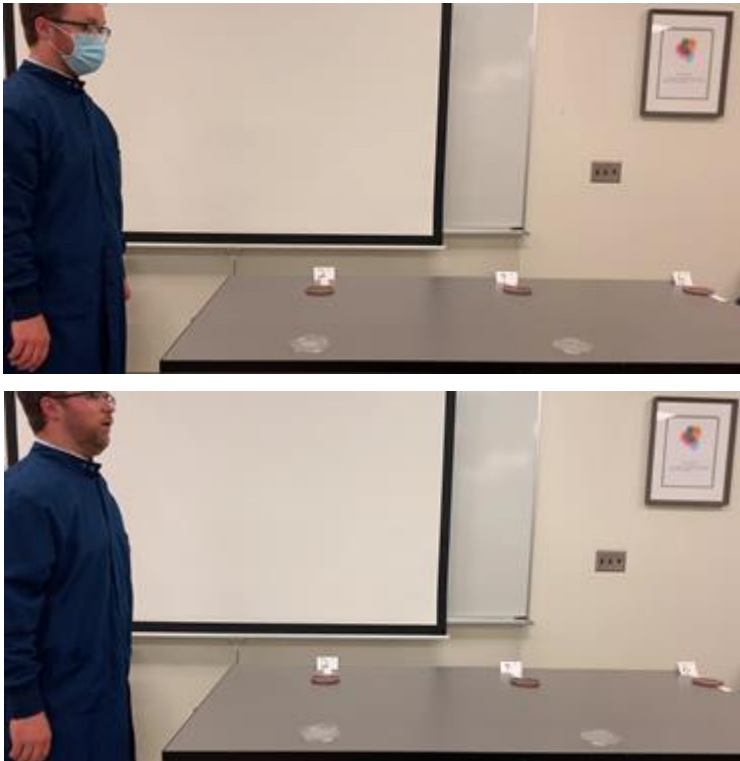


**\*Note:** It is likely that smaller aerosolized droplets (that could carry viruses like SARS-CoV-2) are also produced by coughing, sneezing etc. and that these would travel further and stay in the air longer than larger respiratory droplets.

Experiment performed by:  
Richard E. Davis, PhD, PHC Regional Director of Microbiology  
Providence Sacred Heart Medical Center and Children's Hospital

## Masks limit the spread of most microbe-containing droplets produced by coughing. Even without a mask, these droplets mostly traveled less than 6 feet.

Demonstration: To show the value of appropriate masking and distancing, bacteria culture plates were placed 2 feet, 4 feet and 6 feet away from a person who coughed aggressively for ~15 seconds. Droplets from the upper respiratory tract and mouth landed on the plates and after culturing for 24 hours, colonies of bacteria (not viruses\*) can be seen.



**\*Note:** It is likely that smaller aerosolized droplets (that could carry viruses like SARS-CoV-2) are also produced by coughing, sneezing etc. and that these would travel further and stay in the air longer than larger respiratory droplets.

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Sacred Heart Medical Center and Children's Hospital