



Understanding Exposure Risks

Updated Aug. 11, 2022

Learning about how COVID-19 spreads and the factors that can increase or decrease that risk can help you make informed choices.

The questions below are written in past tense to help you assess the likelihood that you were infected when you were around a person with COVID-19. **If multiple factors below indicate higher transmission risk, you should follow the steps for [what to do if you are exposed](#).**

You can also ask yourself the same questions, but about future interactions with others, to help you decide what prevention actions to take. If multiple factors below indicate higher transmission risk, you should consider [adding more prevention actions](#).

Factors that lower or increase risk of transmission

Length of time: How long were you with the infected person?

Longer exposure time **increases** the risk of transmission (for example, contact longer than 15 minutes is more likely to result in transmission than two minutes of contact).

Shorter exposure time

Lower Risk

Medium exposure time

Moderate Risk

Longer exposure time

Higher Risk


Cough or heavy breathing: Was the infected person coughing, singing, shouting, or breathing heavily?

Activities like coughing, singing, shouting, or breathing heavily due to exertion **increase** the risk of transmission.


Less

Moderate


Elevated



Lower Risk




Moderate Risk



Higher Risk


Symptoms: Did the infected person have symptoms at the time?
Being around people who are symptomatic **increases** the risk of transmission.

No symptoms



Lower Risk


Symptoms



Higher Risk


Masks: Were you or the infected person or both wearing a **respirator** (for example, N95) or high-quality **mask**?
If one person was wearing a mask, the risk of transmission is **decreased**, and if both people were wearing masks, the risk is **substantially decreased**. Risk is also lower if the mask or respirator is a **type that offers greater protection**.

Yes, both masked




Lower Risk

Only one masked



Moderate Risk

Neither masked



Higher Risk

Lower Risk


Moderate Risk

Higher Risk

Ventilation and filtration: How well-ventilated was the space?

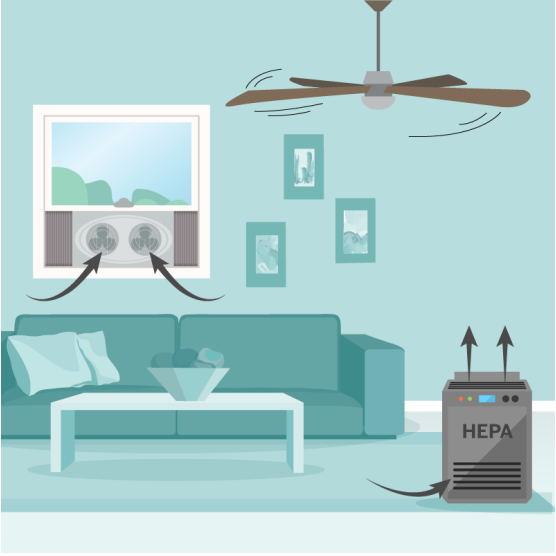
More outdoor air can **decrease** the risk of transmission. Being outside would be lower exposure risk than being indoors, even with good ventilation and filtration; both of those options would be lower risk than being indoors with poor ventilation or filtration. See the [Interactive Home Ventilation Tool](#).

Outdoors




Lower Risk

Well-ventilated indoors



Moderate Risk

Poorly ventilated indoors




Higher Risk

Distance: How close was the infected person to you?


Being closer to someone who is infected with COVID-19 **increases** the risk of transmission. Crowded settings can raise your likelihood of being close to someone with COVID-19.

Distant




Lower Risk

Moderately close



Moderate Risk

Very close or touching



Higher Risk

ⁱ <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1003987> [↗](#)
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