

## The Risks of COVID-19: Know Them and Avoid Them!

(summarized from an [article](#) by Dr. Erin Bromage)

It is *far too early* to breathe a sigh of relief about this virus.

Reopening will undoubtedly increase the number of new infections, but we can lessen that risk by avoiding high-risk situations. These include:

- **High density** groups of people gathering indoors.
- **Areas with low air circulation**--such as nursing homes and crowded office buildings.

**How much contact does it take to get sick?** To answer that, you need to know three things:

1. How many people?
2. How much air circulation?
3. How long will I be exposed while I am there?

To transmit infection, there must be significant contact: 10-15 minutes of face-to-face contact (without masks) is thought to represent a significant risk for infection. Why? Although the exact number is not known, some experts estimate that about 1000 particles of the virus are needed for infection.

- One **cough** or **sneeze** disperses *millions of* viral particles at great speed (50-200mph!).
  - **Speaking** releases about *200 viral particles per minute*.
  - **Breathing** releases much lower levels, around *20 viral particles per minute*.
- The takeaway: **successful infection = exposure \* time**

**The good news:** Brief contact -- such as passing encounters with joggers and brief grocery trips -- is likely not enough to cause infection due to the short exposure time.

### **What is the role of asymptomatic people in spreading the virus?**

People without symptoms can be infected with the virus. They can release viral particles and unknowingly infect many others.

### **What settings are high-risk?**

High risk settings include: restaurants, workplaces (especially if indoors and crowded), bathrooms, and gatherings such as weddings, funerals and birthday parties. The majority of outbreaks happen in crowded places like nursing homes, prisons, religious gatherings, and workplaces, but can happen anywhere with **high density** and **low air circulation**.

Very few outbreaks have been connected to outdoor environments.

**As reopening continues, there is a risk that infection rates will increase. Be aware of these high-risk situations and do your best to avoid them.**

**Takeaway:** If you have COVID or cold symptoms, **stay home!**

**Resources:** For further guidance, see: [“What you should know about COVID-19 to protect yourself and others”](#) on the CDC website.