

## Still Confused About Face Masks?

Here's the Science Behind  
How Face Masks Prevent  
Coronavirus and Other  
Pandemic viruses.





## WHAT EVIDENCE DO WE HAVE THAT WEARING A MASK IS EFFECTIVE IN PREVENTING COVID-19?

- There are several strands of evidence supporting the efficacy of masks.
- One category of evidence comes from laboratory studies of respiratory droplets and the ability of various masks to block them. An experiment using high-speed video found that hundreds of droplets ranging from 20 to 500 micrometers were generated when saying a simple phrase, but that nearly all these droplets were blocked when the mouth was covered by a damp washcloth. Another study of people who had influenza or the common cold found that wearing a surgical mask significantly reduced the amount of these respiratory viruses emitted in droplets and aerosols.
- But the strongest evidence in favor of masks come from studies of real-world scenarios. “The most important thing are the epidemiologic data.” Because it would be unethical to assign people to not wear a mask during a pandemic, the epidemiological evidence has come from so-called “experiments of nature.”
- A recent study published in *Health Affairs*, for example, compared the COVID-19 growth rate before and after mask mandates in 15 states and the District of Columbia. It found that mask mandates led to a slowdown in daily COVID-19 growth rate, which became more apparent over time. The first five days after a mandate, the daily growth rate slowed by 0.9 percentage-points compared to the five days prior to the mandate; at three weeks, the daily growth rate had slowed by 2 percentage-points.
- Another study looked at coronavirus deaths across 198 countries and found that those with cultural norms or government policies favoring mask-wearing had lower death rates.
- Two compelling case reports also suggest that masks can prevent transmission in high-risk scenarios. In one case, a man flew from China to Toronto and subsequently tested positive for COVID-19. He had a dry cough and wore a mask on the flight, and all 25 people closest to him on the flight tested negative for COVID-19. In another case, in late May, two hair stylists in Missouri had close contact with 140 clients while sick with COVID-19. Everyone wore a mask and none of the clients tested positive.

## DO MASKS PROTECT THE PEOPLE WEARING THEM OR THE PEOPLE AROUND THEM?



- “I think there’s enough evidence to say that the best benefit is for people who have COVID-19 to protect them from giving COVID-19 to other people, but you’re still going to get a benefit from wearing a mask if you don’t have COVID-19, or other Pandemic viruses.
- Masks may be more effective as a “source control” because they can prevent larger expelled droplets from evaporating into smaller droplets that can travel farther.
- Another factor to remember, is that you could still catch the virus through the membranes in your eyes, a risk that masking does not eliminate.

## HOW MANY PEOPLE NEED TO WEAR MASKS TO REDUCE COMMUNITY TRANSMISSION?



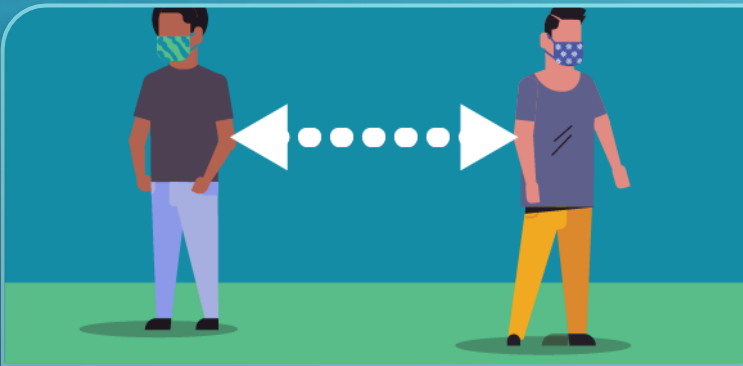
- “What you want is 100 percent of people to wear masks, but you’ll settle for 80 percent.” In one simulation, researchers predicted that 80 percent of the population wearing masks would do more to reduce COVID-19 spread than a strict lockdown.
- The latest forecast from the Institute of Health Metrics and Evaluation suggests that 33,000 deaths could be avoided by October 1 if 95 percent of people wore masks in public.
- Even if you live in a community where few people wear masks, you would still reduce your own chances of catching the virus by wearing a mask.

## DOES THE TYPE OF MASK MATTER?



- Studies have compared various mask materials, but for the general public, the most important consideration may be comfort. The best mask is one you can wear comfortably and consistently. **Surgical masks** are generally more protective than cloth masks, and some people find them lighter and more comfortable to wear.
- The bottom line is that any mask that covers the nose and mouth will be of benefit.
- “The concept is risk reduction rather than absolute prevention” “You don’t throw up your hands if you think a mask is not 100 percent effective, but you’re reducing your risk substantially.”

## IF WE'RE PRACTICING SOCIAL DISTANCING, DO WE STILL NEED TO WEAR MASKS?



Three W's to ward off COVID-19 or other Pandemic viruses: wearing a mask, washing your hands, and watching your distance.

“But of the three, the most important thing is wearing a mask”

Compared to wearing a mask, cleaning your phone or wiping down your groceries are “just distractors.” There’s little evidence that fomites (contaminated surfaces) are a major source of transmission, whereas there is a lot of evidence of transmission through inhaled droplets.

“You should always wear masks and socially distance” I would be hesitant to try to parse it apart. But, yes, I think mask wearing is more important.

# THIS IS WHAT WE CAN OFFER TO YOU!



## STANDARD / CERTIFICATION

**Surgical facemasks must conform to:**  
**BS EN 14683:2019 or any equivalent standard**  
Medical face masks. Requirements and test methods

Surgical facemasks are medical devices covering the mouth, nose and chin, and should be worn during any activities where there is a risk of blood, body fluids, secretions or excretions splashing onto the wearer's mouth or eyes.

All Type IIR facemasks must comply with the following:

- The mask must be marked as Type IIR;
- Must have a splash resistance pressure equal to or greater than 120mm Hg;
- Must provide a bacterial filtration efficiency (BFE) of 98% or above;
- Must be single use;
- Each mask must dispense from packaging individually;
- Must be free from chemical smells, resulting from the manufacturing process, which prevent the end user from breathing comfortably;
- Must have no residue left from the manufacturing process on the finished product which may lead to irritations on the skin;
- Must be close fitting in order to prevent venting (exhaled air 'escaping' at the sides of the mask);
- The nose band must deform when pressed to mould over the nose and cheeks and must maintain its shape over time; and
- The nose band must not kink or break when adjusted.



# LINDBLAD SOLUTION, GLOBAL CONSULTING!

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