

# Should face shields replace face masks to ward off coronavirus?

April 30 2020, by E.j. Mundell

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Hundreds of millions of Americans heeded recent government advice

and rushed to wear cloth face masks, hoping they might prevent transmission of the new coronavirus.

But there's another option: The clear plastic face shield, already in use by many health care personnel.

Now, a team of experts say face shields might replace masks as a more comfortable and more effective deterrent to COVID-19.

"Face shields, which can be quickly and affordably produced and distributed, should be included as part of strategies to safely and significantly reduce transmission in the community setting," said a trio of physicians from the University of Iowa.

Reporting in the April 29 *Journal of the American Medical Association*, experts led by Dr. Eli Perencevich, of the university's department of internal medicine, and the Iowa City VA Health Care System, said the face shield's moment may have come.

While the U.S. Centers for Disease Control and Prevention began advocating the use of cloth masks to help stop COVID-19 transmission in April, laboratory testing "suggests that cloth masks provide [only] some filtration of virus-sized aerosol particles."

According to Perencevich's group, "face shields may provide a better option."

To be most effective in stopping viral spread, a face shield should extend to below the chin. It should also cover the ears and "there should be no exposed gap between the forehead and the shield's headpiece," the Iowa team members said.

Shields have a number of advantages over masks, they added. First of

all, they are endlessly reusable, simply requiring cleaning with soap and water or common disinfectants. Shields are usually more comfortable to wear than masks, and they form a barrier that keeps people from easily touching their own [faces](#).

When speaking, people sometimes pull down a mask to make things easier—but that isn't necessary with a face shield. And "the use of a [face shield](#) is also a reminder to maintain social distancing, but allows visibility of facial expressions and lip movements for speech perception," the authors pointed out.

And what about the ability of a [face shield](#) to prevent coronavirus transmission?

According to the Iowa team, large-scale studies haven't yet been conducted. But "in a simulation study, face shields were shown to reduce immediate viral exposure by 96% when worn by a simulated health care worker within 18 inches of a cough."

"When the study was repeated at the currently recommended physical distancing distance of 6 feet, face shields reduced inhaled virus by 92%," the authors said.

No studies have yet been conducted to see how well face shields help keep exhaled or coughed virus from spreading outwards from an infected wearer, Perencevich and his colleagues said, and they hope that studies on that issue will be conducted.

And they stressed that face shields should only be one part of any infection control effort, along with social distancing and hand-washing.

There will never be any intervention—even a vaccine—that can guarantee 100% effectiveness against the coronavirus, the authors said,

so face shields shouldn't be held to that standard.

Dr. Robert Glatter is on the front lines of the COVID-19 pandemic in his role as emergency physician at Lenox Hill Hospital in New York City. Reading over the new report, he agreed that "common sense" measures are crucial in curbing infections.

"One approach that makes the most sense, especially in light of the limitations of face [masks](#) and face coverings, is the use of face shields," Glatter said.

"While we don't have hard trials or data on the efficacy of face shields at this time, early data from their use in patients with influenza [which is droplet-spread] is promising," he noted. "What's clear is that their success in hospital settings provides the basis for their utility in the community setting as we relax physical distancing going forward."

**More information:** The U.S. Centers for Disease Control and Prevention has more on the [new coronavirus](#).

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