Why Face Masks Are Crucial Now in the Battle Against COVID-19

Homemade face coverings probably won't protect you against COVID-19, but they can help prevent you from spreading the disease to others if you have the virus. Spencer Platt/Getty Images

- As confirmed cases of COVID-19 continue to rise, the CDC is recommending that everyone wear a cloth mask when they go out in public.

- Experts say the homemade masks won't protect someone from getting sick, but they can help prevent the spread of the disease by those with the virus.
- Experts also recommend that everyone continue social distancing and other preventive measures in addition to wearing face coverings.

Public use of face masks has been common in China and other nations in Asia since the beginning of the new coronavirus disease outbreak.

Now, as the United States faces an increasing number of COVID-19 confirmed cases and deaths, the Centers for Disease Control and Prevention (CDC) has started advising

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 Americans to wear masks, too.

"We now know from recent studies that a significant portion of individuals with coronavirus lack symptoms ("asymptomatic") and that even those who eventually develop symptoms ("pre-symptomatic") can transmit the virus to others before showing symptoms," according to the advisory published by the CDC. "This means that the virus can spread between people interacting in close proximity — for example, speaking, coughing, or sneezing — even if those people are not exhibiting symptoms."

"In light of this new evidence, CDC recommends wearing cloth face coverings in public settings where other social distancing measures are

difficult to maintain (e.g., grocery stores and pharmacies) especially in areas of significant community-based transmission," the advisory stated.

The CDC supported its new position by citing several studies about the asymptomatic spread of the disease, the first of which was published on March 5 in the New England Journal of Medicine.

"It is becoming increasingly clear that all people should be wearing masks while out in public. Masks are a likely reason why the virus has been better controlled in China, South Korea, Japan, and other countries," Dr. Subinoy Das, chief medical officer of Tivic Health and the chief executive officer of the U.S. Institute for Advanced Sinus Care and Research, told [name removed].

The CDC is recommending, not requiring, mask use when going out in public. The agency stressed that the advisory applies to cloth masks — including homemade masks — not hospital-grade surgical masks and microparticle-filtering N95 masks.

"Those are critical supplies that must continue to be reserved for healthcare workers and other medical first responders," according to the CDC.

Protecting others, not you

When asked about the CDC recommendation, President Donald Trump indicated that he would not comply.

"I just don't want to wear one myself," the president told reporters.

Most experts say you should.

"Masks should be worn anytime you are in public or people are nearby. Masks act as a physical barrier to protect you and others from viral and bacterial particulates. Many people unknowingly infect others by going out and spreading germs by coughing or touching others," Keane Veran, co-founder and chief executive officer of Oura, a maker of face masks, told [name removed].

"You can go out in public areas without a mask if there is no one nearby. Otherwise, regardless if it's close quarters or spaced out, you should wear a mask with others around. This is precaution and courtesy to yourself and those nearby you."

A cloth mask alone is unlikely to prevent you from inhaling microscopic virus particles, according to Rodney Rohde, PhD, chair of the Clinical Laboratory Science Program and associate dean for research at the College of Health Professions at Texas State University.

"The coronavirus will go right through cloth and bandanas… but it will provide a bit of respiratory protection, which can reduce depositing of droplets of the virus on surfaces and to people near you," Rohde told [name removed].

Dr. Luke Padwick, an emergency physician and founder of Austin Emergency Center in Texas, likens the benefit of wearing a mask to coughing or sneezing into your elbow.

"Wearing a mask is good for two reasons: It's going to cut down 95 percent of the breathing that sends the virus up to 6 feet away in a room, and also will reduce fecal/oral transmission by preventing the virus from getting into your nose or mouth" if you touch a contaminated surface and then your face," Padwick told [name removed]. "I think this will slow down the virus a lot."

Cloth face masks aren't respirators

N95 masks, which are worn by medical professionals who come into close contact with those with COVID-19, are actually respirators.

They form a tight seal over the nose and mouth and filter all air coming in or out.

Cloth masks, on the other hand, are much more akin to surgical masks, which are not airtight and are primarily intended to prevent healthcare workers from spreading germs to patients.

Cloth masks "protect the environment from the wearer, whereas respirator N95 masks protect the wearer from the environment," Dr. Natasha Fuksina,

an internal medicine physician with Astra MD Health in Newark, New Jersey, explained to [name removed].

Stay vigilant on other measures

Reports from Asia suggest that mask wearing plays an important role in promoting a sense of community solidarity and collective effort in fighting diseases like coronavirus.

What wearing a mask won't do, however, is take the place of other, more important COVID-19 prevention protocols, such as social distancing and handwashing.

"Masks may lead to a false sense of protection," warned Rohde.

"If you put on a mask and then go into a grocery store and touch everything, your risk is going to go up," added Padwick.

Just as important as wearing a mask is proper handling when using them, said Rohde. Hand hygiene in conjunction with "donning and doffing" masks is especially critical.

"Avoiding handling the cloth without washing your hands," he said. "Be careful when taking it off to handle the mask by the bands, not the cloth."

Cloth masks should be washed daily or after every extended use.

"Wash it with a detergent containing bleach or a bleach-like ingredient, dry it, and it is good to go," said Rohde.

How to make a mask

"Cloth face coverings fashioned from household items or made at home from common materials at low cost can be used as an additional, voluntary public health measure," according to the CDC.

Patterns for making homemade masks are appearing online, including on the CDC website

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Cloth face coverings should "fit snugly but comfortably against the side of the face, be secured with ties or ear loops, include multiple layers of fabric, allow for breathing without restriction, and be able to be laundered and machine dried without damage or change to shape," the CDC stated.

Some studies

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 suggest that certain cloth, such as dishcloth material, offer superior filtration of virus particles than others. Do-it-yourself plans also call for integrating HEPA filter material from vacuum cleaner bags into mask designs.

However, without an airtight seal, none of those materials will provide significant protection against the contraction of the virus for the wearer.

On the other hand, almost any cloth mask will capture exhaled droplets of virus-containing moisture and cause them to consolidate on the inside of the mask rather than being spread in the environment, said Padwick.

Comfort, not material, should be king when designing a mask. An uncomfortable mask that requires constant adjustment means more face touching and removal, he said, leading to more, not less, risk of contamination.

"A mask that you'll wear 100 percent of the time will be more effective than one you'll wear 75 percent of the time," said Padwick.