

What doctors wish patients knew about wearing N95 masks

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Throughout the COVID-19 pandemic, physicians and other health professionals have continued to stress the everyday necessity and importance of wearing masks to protect against the spread of SARS-CoV-2. While reusable cloth masks have been recommended until recently, the Centers for Disease Control and Prevention (CDC) and other experts acknowledge N95, KN95 or KF94 masks provide the most protection when in public indoor spaces given how transmissible the SARS-CoV-2 Omicron variant is.

With National Institute for Occupational Safety and Health (NIOSH)-approved N95 masks no longer in short supply, CDC guidance provides that people may choose to wear a NIOSH-approved N95 mask for personal use instead of a cloth mask. N95 masks filter up to 95% of particles in the air when approved by NIOSH and proper fit can be achieved. People should be aware, though, that about 60% of KN95 masks in the United States are counterfeit and do not meet NIOSH standards.

In fact, N95 and KN95 masks were found to be 48% more effective than surgical or cloth masks, according to a CDC study. Wearing an N95 or KN95 mask reduces the odds of testing positive for SARS-CoV-2 by 83%. This is compared with 66% for surgical masks and 56% for cloth masks, further pushing the need to swap out such face coverings for an N95 or KN95 mask for protection from SARS-CoV-2.

The AMA's What Doctors Wish Patients Knew™ series provides physicians with a platform to share what they want patients to understand about today's health care headlines, especially throughout the COVID-19 pandemic.

In this installment, two AMA members took time to share what patients should know about wearing N95 or KN95 masks, which are types of specialized filtering masks that doctors and others in health care call respirators. They are:

- Louito Edje, MD, a family physician and associate dean of graduate medical education at the University of Cincinnati Medical Center.

- Luis Seija, MD, an internal medicine and pediatrics resident at Icahn School of Medicine at Mount Sinai in New York City. Dr. Seija is also a delegate for the AMA Resident and Fellow Section and the AMA Minority Affairs Section.

There's added protection with N95s

“Now, more than ever, we need to decrease the transmission of COVID-19,” said Dr. Edje, noting that “Omicron is the most contagious of the variants, so far. It is three times higher than that of the Delta variant and the second most contagious virus known to man, only second to measles.

“This is the reason that N95s are recommended for use by the general public,” she added, noting that “N95 masks offer the highest level of protection because they protect against both large and small particles rather than just large particles.”

Additionally, N95 masks “are made of multiple layers of a synthetic fiber called polypropylene and if they are worn as instructed, they block 95% of particles in the air from passing through,” said Dr. Edje.

KN95 and KF94 masks also protect

It is also important to note that “international brands of N95s are KN95s—certified in China—and KF94s, which are certified in South Korea,” said Dr. Edje. “The KN95 and KF94 masks block 94% of particles in the air.”

But be mindful of “masks with valves that make them easier to breathe through,” she said. That’s because “they don’t filter the air the wearer breathes out and are not recommended.”

Make sure the mask covers your face

“All masks should cover the face from the bridge of the nose—where glasses would sit—to under the chin,” said Dr. Edje. “The wearer should be able to turn his or her head to either side, and up and down without the mask gaping at the edges.”

With N95s, “do not twist the loops to tighten the mask as this produces gaps and decreases the effectiveness of a mask by about 60%,” she said.

N95s can be fitted

“N95 masks can be specifically fit to a person’s face, fit-tested, as they are for health care workers,” said Dr. Edje. “This means there is a process whereby the wearer’s ability to smell and taste certain substances in the air is tested while they are wearing the N95.”

“Typically, bearded individuals have to shave to be properly fit-tested,” she said. “Only 1% of an infectious dose of COVID-19 will be able to penetrate a fitted N95 mask and it will take 2,500 hours of exposure for this transmission to occur.”

“A nonfit-tested N95 will protect the wearer from an infected individual who is also wearing an N95, for 25 hours of exposure,” said Dr. Edje. “This is in contrast to two unmasked individuals—one infected and one not infected—who can only be together for 15 minutes without the uninfected becoming infected.”

Always wear in public spaces

“If the wearer will be indoors, in an unventilated space, in a home with a person who is quarantined or isolating in an area where known exposure is likely, it is recommended to mask continuously,” said Dr. Edje. “Additionally, if one is emerging from quarantine or isolation, masks should be worn until day 10.”

“For health care workers, we can try to at least dispose of our N95 every day or after a one-time use,” said Dr. Seija. “But say you’re going to get three or four—meaning you’re going to get it from the government—you’re going to have to be diligent and aware of when to use or not to use them to optimize protection against COVID.”

“The CDC recommends that we consider using high-filtration respirators anytime that we are going out into public,” he said. “That is what we have learned, especially with Omicron.”

Watch out for counterfeits

The unfortunate reality is counterfeit masks are widely available. That is why it is important to be mindful of what to be on the lookout for when identifying if an N95 mask might be fake.

The AMA worked with the National Institute for Occupational Safety and Health to help physicians identify counterfeit respirators. Purchasing a mask directly from a NIOSH-approved manufacturer is the best way to ensure you are not getting a counterfeit mask.

Try to relax when wearing N95s

“The biggest thing when it comes to breathing is there’s probably a sense of anxiety or suffocating that comes with it,” said Dr. Seija. “And that’s a totally natural reaction, particularly for people who are not used to it.

“But we’re heading towards the direction where this is our new normal, so the most important consideration about wearing a respirator is how does it fit? Is it comfortable for you?” Dr. Seija said as he modeled a mask that caused his ears to stick out. “This is too small for me and it’s too tight. “I can use this if I need to, but it’s not going to be the right fit for me, and it is going to affect how I breathe.”

That’s why, when wearing N95s, people should “try to be relaxed and breathe as normally as possible,” said Dr. Edje, noting that it is important to “make sure it fits snugly but does not leave gaps.”

“I often tell patients there’s a stepwise approach to wearing N95s,” said Dr. Seija. “If you’re not comfortable, try walking around in your house or somewhere that you’re comfortable and you feel safe first.”

Better seal helps prevent glasses fog

“Most people—at the beginning of the pandemic—when they started wearing masks, their glasses would get foggy,” said Dr. Seija. “While the fog is annoying, it also reflects that your seal is not good enough.

“What you can do is put on your mask first with your glasses off,” he said. “Then get your seal in place firmly against your nose and cheeks, and then you’ll be good.”

Additionally, “to decrease the likelihood of this happening, washing the glasses with soapy water can decrease water tension and decrease the fogging,” said Dr. Edje, adding that it is also key to “wear glasses over the mask.”

Irritation happens with improper fit

Sometimes when wearing a mask, there can be irritation on the face. Other times, if the mask is too tight, people can experience headaches.

“There’s a couple reasons why this happens and the primary one is that you’re not fitted for the right mask,” said Dr. Seija, who noted that “if I wore a small mask, I would pass out.”

“What we actually recommend, especially with the N95s, is that you have to make sure that you have your seal. If you don’t have a proper seal, then you’re increasing your risk of COVID exposure and potential transmission,” he said. “And you’re going to feel some sense of tightness, but you have to see what you’re willing to tolerate.”

Touch ear loops when removing KN95s

“When removing a used mask, be sure to only touch the ear loops or ties,” said Dr. Edje. This is so that you do “not get contaminated with virus particles from the outside of the respirator.”

And make sure you “do not keep the respirator tucked under your chin for any reason,” she said, noting that it must be worn to cover your nose and mouth.

Cloth masks are better than nothing

“We also have to recognize that wearing an N95 is not realistic for all,” said Dr. Seija. “For some people, a surgical mask or cloth mask is more sustainable—that is all they have.”

“And that’s where other things come in like double masking by wearing a cloth mask over a surgical mask,” he said. “Because the thing is, wearing any type and/or combination of masks is better than no mask.”

“A multilayered, tightly woven cloth mask—such as cotton—is better than no mask,” said Dr. Edje, adding that N95 masks offer the best protection against infection and there has been a shift in guidance since the emergence of the Omicron variant.”

If a person is wearing a cloth mask, remember that “cloth masks should be washed daily and fully dried,” she said.

Wear a mask for your loved ones

“You have to really take a look at the risk and benefits as well as your own personal responsibility to be wearing a mask,” said Dr. Seija. “What I ask myself and others is: Who do you wear a mask for?”

“I wear a mask for my mom. I’m here in New York, but I wear a mask for my mom,” he added. “As someone who has gotten COVID twice now, she’s the person that I can wear a mask for even though I’m here and she is in Texas.”

Visit the AMA COVID-19 resource center for clinical information, guides and resources, and updates on advocacy and medical ethics.

Learn more from the CDC about how to wear your N95 mask so it is most effective.