

Why some experts recommend upgrading to N95 masks to help fight the delta variant

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The debate over masks is heating up again, with increasing calls for all Americans, regardless of coronavirus vaccination status, to return to wearing face coverings in indoor public places to help thwart the spread of the highly contagious delta variant. But some experts say the recommendations should specify the kind of masks people should be using.

“Delta is so contagious that when we talk about masks, I don’t think we should just talk about masks,” Scott Gottlieb, former commissioner of the Food and Drug Administration, said during a recent appearance on CBS’s “Face the Nation.” “I think we should be talking about high-quality masks,” such as N95 respirators.

In an interview with The Washington Post, Monica Gandhi, a professor of medicine and an infectious-disease expert at the University of California at San Francisco, expressed a similar sentiment: “We can’t say we’re going back to masks without discussing type of mask.”

Vaccinations, experts emphasized, remain the first line of defense against the coronavirus. “Far and away the best prevention we have are still the vaccines,” said Paul Sax, clinical director of the Division of Infectious Diseases at Brigham and Women’s Hospital in Boston. “All of these things pale in comparison to getting the remaining people who are eligible for vaccination vaccinated.”

But amid concerns about the rapid spread of the delta variant, “it’s a fantastic idea at this point in time to move toward higher-quality masks,” especially if you’re unvaccinated or otherwise vulnerable to severe disease, said Chris Cappa, an environmental engineer and professor at the University of California at Davis. And for fully vaccinated individuals who may still be at risk of breakthrough infections, he noted, “the delta variant is a good reminder that we shouldn’t necessarily quit wearing masks when we’re in environments that might be prone to transmission.”

Here are factors that Cappa and other experts say you should consider about the use of N95 masks.

Not all masks are created equal

The efficacy of a mask is based on its material and fit. Medical-grade respirators, such as N95 masks, can provide greater protection from infectious coronavirus particles than surgical masks or cloth masks, said Linsey Marr, an aerosol expert at Virginia Tech who studies airborne virus transmission.

And because the delta variant is much more easily transmissible than previously circulating strains of the coronavirus, “we really need highly protective masks along with everything else,” Marr said. “Where a simple cloth mask was helpful before, it’s not helpful enough now,” particularly for people who remain unvaccinated.

The woven material of many cloth masks isn’t as effective at filtering particles as the nonwoven, meltblown polypropylene used to make surgical masks and respirators, Marr said. And properly worn N95s have a leg up on standard surgical masks because they are designed to fit snugly to the face — which allows them to filter at least 95 percent of airborne particulates.

“A surgical mask is just a rectangle and you’re trying to pull it to your face,” she said. “Obviously, our faces aren’t in the shape of a flat rectangle, so you inevitably end up with lots of leaks.”

But, Marr noted, it’s important to be wary of counterfeit respirators. The Centers for Disease Control and Prevention has an online guide with lists of N95 masks approved by the National Institute for Occupational Safety and Health, and tips for spotting

counterfeit ones.

KN95 masks, which are manufactured in China and can be equivalent to N95s in effectiveness, have not gone through the NIOSH approval process. But the Food and Drug Administration had authorized some KN95s for emergency use by health-care workers when there was a shortage of N95 masks during the pandemic. While you can

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It's also critical to wear N95s properly, experts said: There should be no gaps between the edges of the mask and your face. To test the seal of your mask, Marr suggested putting on your mask and cupping your hands around it to hold the edges down. If breathing becomes noticeably more difficult, that's a sign that the mask likely isn't well-fitted. People who wear glasses can also gauge if their mask is leaky by how much their lenses fog up, Cappa said.

Unlike cloth masks, N95s can't be washed, so pay attention to the state of your mask. Gandhi said she typically swaps out an N95 every three days as long as it doesn't become soiled. Between uses experts suggested letting masks air out, preferably in the sun. If there's any visible signs of wear and tear, it's time to get a fresh one.

When handling your mask, try to avoid touching the front and make sure to wash or sanitize your hands after, Marr said.

Some people are more at risk

SOME PEOPLE ARE MORE AT RISK

Switching to an N95 mask may especially be a good idea for more vulnerable people, experts said. This includes the unvaccinated as well as those who are vaccinated but may still be at increased risk, Sax said, such as the elderly and the immunocompromised or people with multiple medical problems. “If they need to be in settings where they’re mixing with unvaccinated people or they don’t know the vaccination status, then upgrading their mask is very reasonable.”

It may be less important for fully vaccinated healthy people to have a high-performance mask, experts said. Combining “really almost any mask-wearing” and vaccination still “provide generally quite good protection,” Cappa said.

He recommended that vaccinated, low-risk individuals make decisions about upgrading their masks based on situational factors. Keep in mind, he said, that the longer you’re in an enclosed space in proximity to other people, the more your odds of catching something go up. Community rates of transmission and hospitalizations should also be considered.

There are other ways to boost protection

Although N95s are considered by many experts to be the gold standard, the respirators — which can become uncomfortable after prolonged use — may not be appropriate for all vulnerable populations. Take, for instance, children who are not eligible to receive vaccines but old enough to wear masks.

The [CDC notes](#) that NIOSH doesn’t approve any respiratory protection, such as N95s, for use among children. What’s more, standard N95s are likely going to be too big to fit tightly on a child’s face.

Because any face covering has to be worn properly to be effective, Gandhi said, you should prioritize making mask-wearing “palatable for children and easier to do.”

It’s also important to remember that children are generally less susceptible to contracting the coronavirus. But if a child is immunocompromised, Gandhi suggested [increasing protection](#) with a three-layer mask made of tightly woven fabric outer layers sandwiching a middle filter layer. Just be mindful that the filter layer needs to be

replaced when the mask is washed.

Activities and surroundings matter

Although mask debates are once again moving to the forefront of public attention, Sax said, the conversation should center on other factors that affect the spread of the coronavirus.

“A lot of the focus on transmission should shift not so much to the mask-wearing or not mask-wearing, but the activities” people are doing, Sax said, such as dining indoors or holding parties.

These are the settings where transmission is happening, especially if there is crowding or the ventilation is poor, he said. “And that’s occurring even more efficiently with the delta variant.”

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