Vaccinated and Confused? Answers About Masks, the Delta Variant and Breakthrough Infections

By Tara Parker-Pope

Vaccines protect against the variants, but conflicting advice from health authorities about masks has bewildered a worried public.

The World Health Organization wants everybody to wear masks, but the U.S. Centers for Disease Control and Prevention says vaccinated people often don't need to wear them.

So who do we listen to?

Virus experts and epidemiologists also offer mixed advice, but largely agree on one point: Whether a fully vaccinated person needs to wear a mask really depends on the circumstances and what's happening in your community.

"At this point, thinking about wearing a mask is a little like dressing for the weather," said Linsey Marr, a professor of civil and environmental engineering at Virginia Tech and one of the world's leading experts on viral transmission. "You need to consider the caseload and vaccination rates wherever you're going, what activity you'll be doing, and your own health."

But the new push to ask vaccinated people to mask up has sown confusion. Does the call for masking mean the vaccines don't offer enough protection? Why is everyone so concerned about the Delta variant? And should vaccinated people be worried about breakthrough infections? Here are some answers.

Why is the W.H.O. telling vaccinated people to wear masks?

Mask mandates are largely intended to protect the unvaccinated — people who are vaccinated are already well protected by vaccines, and breakthrough infections are still very rare. But since you can't always tell who is vaccinated and who is not, telling everyone to wear a mask can help stop the spread of the virus by people who are infected but don't have any symptoms.

And while cases and deaths are falling in the United States, large parts of the world are still grappling with the rapid spread of the virus and many people remain unvaccinated. In the United States, 67 percent of adults have received at least one dose of vaccine. In addition, vaccines given in other parts of the world, like the Sinovac vaccine, have not performed as well against the variants as the vaccines available in the United States.

"W.H.O. is providing guidance for the whole world, and in areas where Delta is dominant, cases are high, vaccination rates are low, and the vaccines that have been distributed are less effective against Delta, it makes sense for vaccinated people to wear masks," said Dr. Marr.

The C.D.C. director, Dr. Rochelle P. Walensky, on Wednesday stood by advice that people fully vaccinated against the coronavirus do not need to wear masks in most situations, but added that there are instances where local authorities might impose more stringent measures to protect the unvaccinated.

Dr. Marr said her advice to a fully vaccinated friend about mask wearing would be to follow local mask rules and to take extra precautions in certain situations.

“I would tell them that, in general, they do not need to wear a mask,” said Dr. Marr. “But they should continue to carry one with them for times when they are in a very crowded indoor setting for a long period of time, like air travel, where masks are required anyway, or a crowded movie theater, playhouse or concert venue, for example.”

If I’m vaccinated, should I be worried about the Delta variant?

The Delta variant, which was first identified in India, is worrisome because it is highly contagious and spreading rapidly around the globe. Unvaccinated people who are infected with Delta are twice as likely to be hospitalized as those infected with Alpha, the dominant variant in the United States that was first detected in Britain.

What has been surprising about the Delta variant is how easily it seems to be transmitted. In Australia, security cameras documented a brief encounter of two people passing each other in a shopping mall; one of them was unknowingly infected. The shoppers were facing each other at one point and breathed each other’s air for only seconds, which led to the second person getting infected. (The transmission was confirmed through genetic sequencing.) While such a brief encounter typically wouldn’t lead to transmission, the case signaled how important it is that people get vaccinated before the Delta variant spreads further.

The Delta variant now accounts for about one in every four infections in the United States, according to new estimates this week from the C.D.C.

But if you are among the vaccinated, most experts say you don’t need to be fearful. Studies show that two doses of the Pfizer vaccine offer 88 percent protection against the Delta variant, compared to 93 percent protection against Alpha. The Moderna vaccine has performed similarly to Pfizer in other studies, so it’s expected to give a similar level of protection against Delta. Moderna has said test tube studies using blood samples from vaccinated people showed the vaccine is still highly effective against the Delta variant, which caused only a “modest reduction” in virus-fighting antibodies in the samples.

A recent Public Health England study found that people who are partially vaccinated are 75 percent less likely to be hospitalized than an infected person who isn’t vaccinated. Those who are fully vaccinated are 94 percent less likely to be hospitalized.

“If you’ve had two doses of the Pfizer vaccine, like me, you should be protected against the Delta variant,” said Gregg Gonsalves, assistant professor of epidemiology at the Yale School of Public Health. “I could go maskless and feel fine about it from that perspective. I think for the U.S. — where we have states that have poor vaccination coverage and among populations who haven’t been vaccinated — the Delta variant is a problem.”

Dr. Gonsalves said that even though he is fully vaccinated, he will continue to mask up in the grocery store and other public spaces as we wait for more people to get vaccinated.

“Am I going to wear a mask among friends who are fully vaccinated? Probably not,” he said. “However, in public, I certainly will. This is about promoting a social norm: Right now there are enough people unvaccinated that we should be modeling good behavior, showing social solidarity.”

Does the Johnson & Johnson vaccine protect against the Delta variant?

Johnson & Johnson had lagged behind the other vaccine makers in collecting data about how its vaccine performed against the Delta variant. But the company on Thursday finally released results from two studies that showed its vaccine remained effective against the highly contagious variant. The company also found that antibodies stimulated by the vaccine grow in strength over time.

The Johnson & Johnson vaccine initially was studied after new variants began circulating. It was 72 percent effective in the United States and 66.3 percent effective globally. Most important, the Johnson & Johnson vaccine was 86 percent effective against severe disease. The vaccine showed only a small drop in potency against the Delta variant, the company said, although it didn’t go into further detail. You can read more about the Johnson & Johnson report here.

A Public Health England study found that the AstraZeneca vaccine, which has performed similarly to the J&J shot, provided 60 percent protection against Delta, down from 66 percent against the Alpha variant.

What’s my risk of getting Covid-19 after I’m fully vaccinated?

Although the Covid vaccines are highly effective, no vaccine offers 100 percent protection. While breakthrough infections happen, they are extremely rare, and in most cases, breakthrough infections cause only mild illness.

The risk of being hospitalized or dying as a result of a breakthrough infection is minuscule (less than .003 percent), based on data collected from the C.D.C. As of June 21, more than 150 million people in the United States had been fully vaccinated against Covid-19. As of that date, the C.D.C. reported that 4,115 patients had Covid-19 vaccine breakthrough infections that resulted in hospitalization or death, including 3,907 who had been hospitalized and 750 who had died.

But because the risk of getting Covid-19 after vaccination isn't zero, some health experts still advise that vaccinated people take reasonable precautions, like wearing a mask in crowded spaces.

People who live in areas with low vaccination rates may also want to consider wearing masks in public, where they are more likely to encounter an unvaccinated person than someone living in a highly vaccinated region.

In the United States, 64 percent of people 12 and older have received at least one dose and 54 percent are fully vaccinated. But in some cities like Seattle and San Francisco, more than 75 percent of those eligible are at least partially vaccinated. Many states in the Northeast, the West and Pacific Northwest have vaccinated more than 60 percent of the adult population. But the pace of vaccinations varies across the country. Several states in the South, including Mississippi, Tennessee, Alabama and Arkansas, have vaccinated fewer than 45 percent of adults. You can learn more from The Times's vaccine tracker.

Dr. Paul Offit, a professor at the University of Pennsylvania and a member of the Food and Drug Administration's vaccine advisory panel, is fully vaccinated but still wears a mask when he rides the bus in Philadelphia, because the rules require it, as well as when he's in a crowded and enclosed space. He masks up when he shops at the grocery store, because he doesn't know the vaccination status of the other shoppers. But he also dines in restaurants, as long as the tables are spaced at least four feet apart and the servers are wearing masks.

And even though the risk of breakthrough infections for fully vaccinated people is very low, Dr. Offit said the risk goes up when you're in a community where most people aren't vaccinated, because it creates more opportunities for you to encounter the virus. He cites a study in the Netherlands of the measles vaccine, which, like the Covid vaccine, offers high levels of protection, that found an unvaccinated person was safer in a highly vaccinated community than a vaccinated person in an area with low vaccination rates.

"If you're in a highly vaccinated community you have sort of a moat around you," he said.

Dr. Offit said the problem with the current guidance about mask wearing in the United States is that it requires trust.

"You have to trust that the other people you're coming into contact with are vaccinated if they're not wearing a mask," said Dr. Offit. "That's a lot to trust. The same people who aren't masked often aren't vaccinated. Those two things usually go hand in hand. When you see people masked inside, they're often the ones who are vaccinated."

Dr. Marr added that everyone should be prepared for evolving guidance on masks, distancing and other precautions.

“We should be prepared for things to change as we learn more,” Dr. Marr said. “I know everyone wants this to be over or wants a one-size-fits-all rule, but we need to get used to things changing as the virus changes, vaccines roll out, public health responses in different countries shift, and scientists learn more. The 1918 flu pandemic lasted two years.”

https://www.nytimes.com/2021/06/30/well/live/delta-variant-vaccines-masks.html