

What About Antibody Protection from COVID-19?

The latest revision to our pandemic guidelines includes a note about optional mask wearing for those who have a recent, positive antibody test (“recent” should be understood as within the past 30 days). If antibody protection should *not* be understood as equivalent to vaccine protection (and doctors certainly are encouraging all people, including those previously infected, to get vaccinated), why allow previously infected people to go without masks while transmission of the virus continues in our community?

To answer that question, let me share some points from the Centers for Disease Control and Prevention's (CDC) website. This information comes from three articles, one from [Nov. 3, 2020](#), another from [Feb. 2, 2021](#), and their most recent article on antibodies from [Mar. 17, 2021](#).

To be clear, the CDC is *not* including antibody protection as an element in shaping public health policy. The reason? “We don’t have enough information yet to say how protected someone might be from being infected again if they have antibodies to the virus.” That point is repeated in these articles. There just seem to be too many variables (i.e., age, severity of original infection, differing immune responses, resistance to COVID variants) to shape clear and consistent national policy.

But these articles do paint an encouraging picture in terms of what we have learned so far. Repeatedly, the articles emphasize, “Confirmed and suspected cases of reinfection with the virus have been reported, but remain rare.” While tracking reinfections remains somewhat limited (but has increased), that rarity has remained unchanged, with [one tracking site](#) listing only 72 cases of reinfection globally. That tracker also puts *suspected* cases of reinfection at over 40,000, but that's out of almost 166 million global cases (less than a tenth of one percent)(this is actually comparable to vaccination 'breakthrough' cases—as of Apr. 26, there were 9500 cases of infection out of 95 million vaccinated individuals). Even if there is an undercount of COVID reinfections, there seems to be no concern among health officials that this is a current problem (although as time drags on, it could become more of an issue).

This rarity of cases doesn't seem surprising given available data about our immune response to a COVID infection. The CDC states, “evidence indicates that antibody development following infection likely confers some degree of immunity from subsequent infection for at least 6 months,” and that “studies indicate that persons with anti-SARS-CoV-2 antibodies are less likely to develop subsequent infection than persons without such antibodies.” Their most recent article (Mar. 17) includes a summary of available data from a number of case studies of antibody protection. What's also being considered is antibody protection in similar viruses. That recent article states,

“While life-long immunity has not been observed with endemic seasonal coronaviruses (27), studies of persons infected with the novel SARS-CoV-1 and Middle East Respiratory Syndrome (MERS-CoV) coronaviruses demonstrated measurable antibody for 18 – 24 months following infection (28, 29), and neutralizing antibody was present for 34 months in a small study of MERS-infected patients (30).”

Beyond the CDC, a [National Institutes of Health article](#) from this year indicates, “The immune systems of more than 95% of people who recovered from COVID-19 had durable memories of the virus up to eight months after infection.” Similarly, a [World Health Organization brief](#) from this month indicates that available “scientific data suggests that in most people immune responses remain robust and protective

against reinfection for at least 6-8 months after infection (the longest follow up with strong scientific evidence is currently approximately 8 months).”

With all this in mind, and considering that many months of research have not changed things significantly, it seems unlikely that reinfected individuals are a cause for alarm. Therefore, if we ask how statistically likely it is that someone at Way of Grace, someone who was previously infected, would become reinfected and spread the virus, based on all available data, the risk seems minimal. But of course risk remains, just as it does with and for vaccinated individuals (and even more so, for unvaccinated individuals who have never been infected). This risk certainly does need to be factored into each person's decision making about attendance.

As the CDC seems to emphasize, ***the key concern*** in all this is the uncertainty of how long antibody protection lasts, its strength from person to person, and the amount of antibodies needed to mount an effective immune response. This is why we are asking those previously infected (and who know they were sick; that is, symptomatic) to have a ***recent*** (within 30 days), positive antibody test. And ideally, such a test would be taken every 30-60 days (especially in light of the date of the original infection, and current community transmission levels).

Of course, health officials, doctors, and epidemiologists are recommending the even better protection afforded by COVID-19 vaccines. As Jennifer Grier, a clinical assistant professor of immunology at the University of South Carolina, put it in [an article from late March](#), “COVID–19 vaccines generate both antibody and T cell responses – but this is much stronger and more consistent than immunity from natural infection.”