



## COVID and Polio Survivors Two Years into the Pandemic

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**I**t has now been over two years since COVID-19 was first identified and the world began to deal with it. We thought that, certainly in 2020, with our years of learning and all our technology, we'd be able to conquer and vanquish this tiny little virus. We have made strides with the development of multiple vaccines, treatments, learning more and more about how the disease passes from one person to another, and learning how to better monitor and treat those who become infected. Yet here we are, with waves of infection occurring with one variant after another and the disease still very much in our midst and on our minds.

Information specific to polio survivors was published and circulated by many polio-related organizations. But as recently as December 2021, I still was receiving occasional calls from polio survivors questioning whether they should get the vaccine. In my personal interactions with polio survivors, it appears that the majority have taken the steps to be fully vaccinated. I think this is because polio survivors are fully aware of what damage a tiny virus can do to one's body, and they have wished that the polio vaccine had been available prior to their contracting polio.

A theory was proposed that, perhaps, individuals who had contracted or been immunized for other viral infections (such as polio) might also have some immunity to COVID. In the real world, we do know that some polio survivors have indeed been infected with COVID and some have died. So, *If* there is some protection, it certainly is not 100%.

It has been difficult to determine accurate information in a situation where there was no historical knowledge of this particular germ. As new information has emerged, the guidance has changed—

sometimes several times! That is confusing and disconcerting to us and can lead to misinformation.

This infection and immunity to this virus has not functioned identically as other infections/viruses have in the past. Generally, getting to a point of “herd immunity”—with around 80% of the individuals who either have been vaccinated or who have contracted the disease—pretty much controls further spread of the disease, but this has not been the case with COVID. It has mutated faster than we have been able to get to herd immunity.

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In addition, the immunity induced by vaccines or by having the disease decreases over time and fairly quickly. After initially believing that two doses of the Pfizer and Moderna vaccines or one dose of the J&J vaccine would confer sufficient immunity, we are learning that there have been several “breakthrough” infections even in those who have received a “booster.” It may turn out that we need yearly doses like we do for influenza.

From my vantage point in mid-January 2022, this is what appears to be true:

- 1) The current vaccines may not prevent people from getting the Omicron or other future variants, but they *do* prevent the most severe infections and nearly all deaths, and
- 2) Omicron is highly transmissible, which means nearly all will be exposed to this virus at some point or another.

My hope is that contracting Omicron will lead to better immunity to other COVID variants. Perhaps this will get us to enough “herd immunity” so that COVID becomes endemic instead of epidemic/pandemic. I think the best we can hope for is that COVID becomes like the flu, with relatively small numbers of people becoming ill with it each year and very few severe cases requiring hospitalization or resulting in death.

A review of death statistics in the United States comparing 2019 (before COVID) to 2020 show that the age-adjusted death rate increased from 715.2/100,000 population to 828.7/100,000. (At the time of writing, the numbers from 2021 had not been finalized). New to 2020 death statistics, the third most common cause of death was COVID, with heart disease and cancer still being number one and two respectively.

Over two-thirds of the deaths reported due to COVID in 2021 in the U.S. were in people over the age of 65, with the greatest risk in those over the age of 85. Of course, those over age 85 were at significant risk of dying from other causes too! In fact, all of us over age 65 have an increased risk of death compared to those who are younger!

Some people have been hesitant to receive the vaccine due to possible side effects.

Humans seem to have a big need to assign a “cause” to bad things happening even if these events are sometimes purely circumstantial. It might sound absurd, but would we blame a person’s death from a car crash on the COVID vaccine if they had received it a few days prior to the car crash? Likewise, when we hear of a death in a person who has recently received a COVID vaccine, we need to

consider what their risks of dying from other “normal causes” would have been if they had not received the vaccine.

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Most of the serious adverse side effects from the COVID vaccines like blood clotting problems and Guillain-Barré syndrome also can happen if a person gets COVID, the disease. The risk is *much* greater of contracting the disease if a person is unvaccinated than it is for experiencing a severe adverse reaction from getting the vaccine.

There is and was a very small risk of developing paralysis from polio from the oral polio vaccine (4–5 cases per one million doses given), but for most of us polio survivors and our families, that did not deter us from lining up for those sugar cubes in the 1960s or getting our children immunized with oral polio vaccine! (Note: Oral polio vaccine has not been used in the U.S. since 2000.) ■