



Eight Myths of the COVID Vaccines

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While the large majority of us can't wait to get our vaccine, polls reveal that about a third of people intend to decline theirs, including 15% of healthcare workers. Hopefully this article will clear up some misunderstandings about the Covid vaccines, which are truly the greatest medical advance of the century.

Specifically, both the Pfizer and Moderna vaccines are about 95% effective in preventing infection, and close to 100% effective in preventing serious disease. Even the one-shot Johnson & Johnson vaccine, which is less effective against infection, is almost equally effective against hospitalization and death.

This is just about as good as new vaccines get. For instance, the original Zostavax Shingles vaccine was about half as effective as Shingrix is (the current vaccine for Shingles) ...and yet was considered a major success until the latter came along.

Quizzify has also created three "COVID Vaccine Mythbusting" quizzes for you. You can reach them [here](#), either by registering for a new account or signing into your existing one. In both cases, playing the games enters you into monthly drawings from MIIA Well Aware for ten \$100 gift cards.

(1) The vaccine will not alter, affect, or even reach your DNA

The myth that the messenger RNA (mRNA) affects your DNA likely got started due to the similarity of those two sets of initials and vague similarities in the molecules. There are five key differences. Similar or not, the vaccine doesn't get into your cells' nuclei, which is where your DNA resides. So, the chances of your DNA being affected are exactly zero.

(2) You cannot get COVID from the vaccine.

So that your cells would develop defenses, a traditional vaccine would contain a weakened or dead form of the virus being vaccinated against. This started with the original 1754 smallpox vaccine, which infected people with a case of cowpox to prevent smallpox, the most deadly disease in the history of mankind. (Indeed, the word "vaccine" derives from the Latin word for "cow.")

However, this mRNA technology does not depend on or include the virus, dead or alive. Therefore, your chances of getting COVID from it are also exactly zero.

(3) The vaccine was not rushed into development

Well, it was – but only after the basic biochemistry of the mRNA had been studied and developed for over ten years, precisely to be deployed in a pandemic like this one.

Further, the clinical trials could be completed quickly because, ironically, COVID-19 was so common that it was easy to conclude that the placebo group was getting far more cases of it than the study group. For rare diseases it is common to have only maybe 100 people in a clinical trial. That small sample size makes drawing conclusions difficult. All the COVID trials combined involved more than a thousand times that number.

(4) The vaccine did not kill anyone in the clinical trials

Word has been circulating that six people died in the Pfizer trials. This is actually true. However, their deaths were not due in any way to the vaccine. Only 2 of the 6 even got the vaccine. The other 4 were in the control group. Further, any random group of 40,000 adults will suffer a few deaths over the course of 9 months.

(5) People who have had COVID still benefit from the vaccine

Immunity following the natural COVID-19 disease may wear off. No one knows, since COVID hasn't been around long enough to be certain. There is certainly anecdotal evidence of a second infection. We do think we know two things:

- The Moderna volunteers had higher levels of antibodies than people who had been sick, indicating a better immune response from the vaccine than the disease itself.
- This "better immune response" is not a one-size-fits-all answer. It appears that people who have recovered from more severe cases have stronger immunity than people who got the vaccine.

So, if you fall into the previously-infected category, you should still get the vaccine, especially if your case was mild. But don't "cut in line." Others need it more than you do.

(6) You still need to wear your mask after being vaccinated

It is known that the vaccine protects you from the actual disease (exhibiting signs and symptoms), but it is not known whether it prevents you from infecting others. You could still be harboring the virus without knowing it.

At a minimum, we know a vaccinated person is unlikely to infect others, but a large number of COVID infections come from unlikely sources.

So, wear a mask.

(7) A woman's fertility is unaffected

In the immortal words often attributed to the great philosopher Winston Churchill, a lie can get halfway around the world before the truth can put its pants on. This appears to be what happened here, a false report getting traction on social media. During the trials, many women got pregnant, and the single miscarriage was in the control group.

(8) You can't get sick from the vaccine

So, there is a grain of truth to the myth that you can get sick. Even if you don't get an actual allergic reaction (which is why you are supposed to hang around for a while after you are vaccinated), you can easily get a reaction to the vaccine that might feel like a very short but possibly temporarily debilitating case of the flu. This is especially true after the second dose.

That's the bad news. The good news is that it is believed that a strong reaction just indicates that your immune system is primed to fight off the real infection.

This is just a sampling of the "Mythbusters" information that you'll find in the quizzes. So, sign in or register today...and happy quizzing.