



Myths and Facts about COVID-19 and Vaccination

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

A year ago, in the year 2020, the entire globe was seized by a minuscule particle known as the CORONA VIRUS. The Coronavirus, which originated in Wuhan, China, has now spread to every corner of the world, some more than others. There has been a lot of worry and fear about this disease all around the world. There are several misunderstandings and questions about this condition, and individuals are prone to believing everything they hear in the media without verifying it. COVID19, or Corona Virus Disease of 2019, is a one-of-a-kind virus that has wreaked havoc over the world and has become one of humanity's greatest threats. All the misconceptions and confusion and beliefs have led to more damage.

Coronaviruses are a kind of virus that causes sickness in animals such as humans and birds. Infections of the respiratory system caused by coronaviruses have a wide range and can vary from person to person from no to mild infection which sometimes can be fatal, particularly in humans. Some cases of rhinorrhoea (which can be due to other viruses, particularly rhinoviruses) are not life-threatening, but more fatal strains can cause SARS, MERS, and COVID-19. In other species, the symptoms are different.

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There are presently no drugs available to prevent or treat human infections. Even though vaccination trials have begun and individuals are being immunized all over the world. Coronaviruses are members of the Coronaviridae family, the order Nidovirales, and the Orthocoronavirinae subfamily of the realm Riboviria. The World Health Organization (WHO) proclaimed the COVID-19 outbreak to be a pandemic in March 2020.

Many instances of pneumonia with an unknown underlying cause have been reported in Wuhan, Hubei Province, China, since December 8, 2019. The great majority of the patients were either employees or residents of the Huanan wholesale fish market, which also sold other live animals. Severe acute respiratory infection symptoms appeared early in the course of this pneumonia, with some patients suffering from acute respiratory distress syndrome (ARDS), abrupt respiratory failure, and other devastating consequences.

On January 7, the Chinese Center for Disease Control and Prevention (CDC) discovered a new coronavirus from a patient's throat swab sample, which the World Health Organization later called 2019 nCoV (WHO). This article includes various myths and their explanation about COVID vaccination. However, it has been observed that COVID-19 vaccination is completely safe.

Keywords: COVID-19; vaccination; immunization; pandemic.

1. INTRODUCTION

After extensive study, doctors and scientists have established preventative techniques and are on the approach of developing a therapy, but not everything about the disease is understood at this time. The illness is currently being widely explored.

Doctors, scientists, and other health professionals are working around the clock to combat the illness, 24 hours a day, seven days a week. However, some people and sections of society continue to underestimate the seriousness of the situation, with people with strict beliefs contributing to its worsening. Half knowledge, as the saying goes, is always hazardous. This is true in all circumstances. Myths around Covid 19 and immunisation.

Vaccines work by triggering your immune system which produces immunoglobulins in a controlled and systematic manner, similar to how a disease might if you were exposed to it.

2. TYPES OF MYTHS AND THEIR EXPLANATION

Myth: Rather than getting vaccinated, a person may only become immune to a disease after contracting it.

The previous statement is incorrect because vaccination makes you immune in the same way. Rather, with the exception of people who are hypersensitive to certain medications, vaccination-induced immunity has no harmful side effects.

Myth: Does getting the vaccine dose make you magnetic?

No, a person cannot and will not become magnetic after obtaining the dosage of covid 19 vaccine, even at the inside if injection, which is usually around your upper arm region. There are no components in COVID19 vaccines that could generate an electromagnetic field at the injection site. As a result, no components of metals are present in any of the COVID-19 vaccines [1].

Myth: Will the COVID19 vaccine cause DNA damage?

No. COVID19 vaccinations have no effect on your DNA and have no effect on your genetic composition. COVID19 vaccines, both mRNA and viral vector transmit instructions (genetic material) to your cells, allowing them to establish defenses against the deadly COVID19 virus. The material, on the other hand, never makes it into the cell's nucleus, where our DNA is housed [1].

Urban Legend: Will a COVID-19 vaccination result in a positive COVID-19 detection test?

No. None of the licenced and recommended COVID19 vaccines cause you to test positive on viral testing, which is used to determine if a person is currently infected.

Myth: Will the COVID-19 vaccine cause changes in my genetic structure?

COVID19 vaccinations will never interact with your DNA or RNA in any way hence no changes occur. Rather it develops immunity after the vaccine gets injected in a person's body.

The COVID19 mRNA and viral vector vaccines both deliver instructions (genetic material) to our cells, allowing them to begin constructing defences against the virus that causes it [2].

Myth: The covid 19 vaccine has serious side effects.

False. This is categorically not the case. As a natural immunological response to the attenuated virus, the vaccination, like other vaccines, causes fever and body ache in some people. Unless a person is allergic to the components of vaccination, there are no serious side effects.

Myth: Getting a vaccine dose lead to infection with variants of the virus.

No. COVID-19 vaccines do not generate or cause COVID 19 viral variants. New virus variants are formed as a result of mutation of the virus that causes COVID-19. The mutation is an ongoing natural process in which the virus keeps changing its nature.

Even before the COVID-19 immunizations were launched, there were numerous types of the virus. Other variants of the virus are expected to emerge as it progresses. COVID-19 vaccines are now available to help prevent the spread of new variants. Despite the fact that we have space information about Covid 19, there are several myths and rumors which are circulating.

Unknown myths and lies are far more dangerous than the virus itself, with the potential to cause far more harm to society. Before sharing any information, one should be well informed about current events and have sufficient experience, because people must understand that any negligence could result in people losing their lives [3].

I'd like to clear up some common misconceptions about the covid 19 virus and its immunization. These myths, on the other hand, are either incorrect or incomplete, and they can exacerbate existing problems.

Myth: Being in the sun or at temperatures above 25 degrees Celsius protects you from becoming ill with the coronavirus (COVID-19).

Your chances of contracting Covid 19 remain the same regardless of whether the temperature rises or the climate becomes excessively hot.

The temperature has little or no effect on viruses, and there is little evidence that it influences viral mortality.

Myth: People who have been infected with Covid19 will never fully recover:

The vast majority of people who contract COVID19 recover and can eliminate the virus from their body layer within a year or less. Everything is dependent on the individual's immunity. If you develop a cough, fever, or difficulty breathing, you should consult your doctor [4].

Myth: If you can hold your breath for 10 seconds or longer without coughing or feeling pain, you are immune to coronavirus disease (COVID 19) or any other lung problem.

To find out if you've been infected with the virus that causes COVID19 illness, you'll need a lab test, most likely a fast antigen test or an RTPCR. It cannot be validated by this or any other potentially valid breathing activity.

Myth: Drinking alcohol has no negative effects and protects you from COVID-19.

Regular or inadequately high consumption of alcohol can cause ill health and increase in other problems alcohol, and excessive consumption can lead to serious consequences if not controlled.

Myth: The COVID-19 virus cannot spread in a hot and humid environment.

According to current evidence, the COVID19 virus can spread in all areas, including humid climates. Regardless of the weather, you should exercise caution if you live in or visit an area where COVID 19 has been reported. The best way to avoid COVID19 is to wash hands frequently, use a hand sanitizer and wear a proper mask. You may be able to get rid of any viruses on your hands this way, as well as prevent them from spreading to your eyes, mouth, and nose [5].

Myth: Inhaling steam can kill the infection.

There is no reason to believe this, and if you are not careful, you may end up with a serious steam burn.

Myth: Religious chants can kill the infection.

The same logic can be used here as it was in the previous answer. A virus would not be able to detect the vibration caused by chanting.

Myth: Is it possible for Covid19 to be transmitted through goods made in countries where transmission is ongoing?

Although the virus can survive for many hours on surfaces, it is difficult for it to remain active due to the environment, transportation, and varying temperatures during shipment. If you suspect a contaminated surface, disinfect it and wash your hands after touching it.

Myth: The new coronavirus is spread via mosquito bites.

At the moment, there is no proof or information to support the claim that mosquitos can spread the novel coronavirus. The new coronavirus is a respiratory virus that transmits mostly by droplets produced by infected people coughing or sneezing, as well as saliva or nasal discharge.

To stay safe, wash your hands regularly with a sanitizer that has an alcohol – base or with a disinfectant soap and water. Avoid coming in contact with people who are coughing or sneezing, and wear a face mask that covers the nose and mouth [6].

Myth: Thermal scanners can detect virus presence or absence.

People who are febrile or have a fever after getting infected with the new coronavirus can be easily detected using thermal scanners. They are, however, unable to detect people who have been affected or infected with the virus but have not yet developed a fever. This is because people who are infected have an incubation period of two to ten days before becoming ill and developing a fever.

Myth: Because Indians' immune systems are superior to those of the West, they will be more likely to survive COVID19 infection.

If this is correct, Indians would have had the world's healthiest population, with life expectancies far outstripping those of other countries. India now ranks 128th in the world in terms of life expectancy.

The 1918 influenza outbreak hit India the hardest of any country on the planet, killing 5-10% of Indians. India has seven of the top ten polluted

cities in the world, as well as the world's second-highest diabetes rate. Both of these criteria indicate that Indians will die if they become infected with the virus.

Myth: Ivermectin is a potential drug which can be used in treating the disease or as prophylaxis .

The preceding assertion is untrue. Ivermectin is a parasite treatment that is used in both animals and humans. Irresponsible and false facts on social media and elsewhere in news suggest that taking the medicine is a safe approach to prevent or cure COVID-19. The Food and Drug Administration has not authorised or cleared the use of ivermectin to prevent or treat COVID-19 (FDA). The FDA has received reports of humans taking veterinary ivermectin. Horse and other animal recipes differ from human formulations in that they can be exceedingly hazardous (poisonous) to people. Using ivermectin for prohibited reasons or at excessive doses can be harmful, resulting in hospitalisation and even death.

Myth: Coronavirus Vaccines Cause Infertility in Men and Women.

Another prevalent myth is that the Covid 19 immunization will render a person infertile. According to various web forums and blogs, covid vaccinations trigger placental protein breakdown. These assertions are completely false and should not be taken seriously. The COVID vaccination does not affect a person's natural reproductive health and does not interfere with it [7].

They are perfectly safe for persons with no immunological or allergic comorbidities to use must be told by the recipient to their vaccination providing expert) Similar erroneous claims have been made concerning men's reproductive health, and there are many more misconceptions like this out there. If people continue to spread rumors and refuse to collaborate with government officials in the medical field, it won't be easy to get over this obstacle.

Myth: COVID-19 was developed in a laboratory setting.

Scientists are still investigating the origins of COVID-19, but they believe it was not created in a laboratory. They believe the virus originated in bats and evolved to infect humans based on research into other coronaviruses.

Myth: Herd immunity will prevent COVID-19 from spreading.

Herd immunity occurs when a large enough proportion of a population develops immunity to a disease, preventing it from spreading to the rest of the population. Scientists believe that to achieve herd immunity against COVID-19, 70 percent of us would have to have either survived COVID-19 or been vaccinated against it. Millions more cases and deaths would result from this. It would also put an additional strain on hospitals and the economy. Furthermore, immunity may last only 3-9 months. Vaccines, according to experts, are preferable to killing the virus.

Myth: A negative COVID-19 test indicates that a person is not infected with the virus.

If a person tests negative for COVID-19, it simply means they did not have the virus present in their body at the time the sample was taken but there is still the possibility of testing a positive later on and developing the infection. Researchers also revealed that some tests result in a false negative. You should be cautious even if a person tests negative for the virus.

Myth: A person can receive a face mask exemption card, which allows them to avoid wearing a mask.

This isn't correct. Fake cards and fliers have appeared in some areas, giving rise to the fact that the carriers are not subject to mask-wearing restrictions. Official-looking emblems or government insignias may appear on some of the cards offered for purchase online. They claim that those transporting them are suffering from a medical or mental ailment that keeps them from wearing a face mask or other protective equipment as required by the Americans Disabilities Act (ADA) [8].

Myth: Quercetin, vitamins and minerals and some essential oils can help with the prevention and treatment of COVID-19.

False. Taking quercetin, zinc, vitamin D, or other nutritional supplements will not prevent or treat COVID-19 infection.

The same is true for essential oils, which do not affect preventing coronavirus illness. The most effective strategies to protect yourself from COVID-19 are to get vaccinated, wear a mask (particularly in crowded or indoor situations), keep your hands clean, and practice physical distancing [9].

To overcome this, we must band together and operate as a team. We're all in this together, and

while some of us are facing greater hardships than others, we must never lose hope or faith. In times like these, it is vital to be alert, and everyone must disseminate curate knowledge for society's growth. Everything will come to an end one day, but until then, everyone must remain vigilant [10-12].

3. CONCLUSION

Despite this, the infection in India has finally reduced following a devastating second wave of COVID-19. People who were previously unwilling to accept vaccinations have been informed, and vaccination rates have increased. It is more vital that we raise awareness about this condition and educate people about it rather than spreading rumours with a political intent. Because the disease has not been eradicated, we must continue to observe the fundamental principles of wearing a face mask, using sanitizers, washing hands, and maintaining social distance [13-15]. By keeping these things in mind, we will one day be able to overcome this sickness together.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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