

Editorial

THE COVID-19 VACCINE: MYTHS AND FACTS IN POPULATION OF PAKISTAN

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The development of COVID-19 vaccine has been created nuisance and propaganda not only in Pakistan but globally. The big public issue is whether to get vaccine or not. In Pakistan illiteracy rate is high. The myths and absurd concept is already present in their thoughts; therefore, it is hard for the government of Pakistan to vaccinate whole population. It is very important to aware the population of Pakistan about the vaccine by separating the myths from facts.¹ The Myth about COVID-19 vaccine is that it is unsafe, because it was developed so fast and rapidly. The fact is COVID-19 vaccine boosts immune system of the human body to make spike protein, which are found on the surface of coronavirus.² The Myth about COVID-19 vaccine is its effects on fertility. This Misperception arose on social media that syncytin-1 spike protein, which is same protein present on the coronavirus. The spike protein, syncytin-1 that attached on placenta and responsible for the development of placenta during pregnancy. Fabricated report create misconception that pregnant women getting the vaccine would affect her fertility due to development of spike protein. These spike proteins are entirely dissimilar and vaccine of COVID 19 could not produce worse effects on fertility. Twenty-three volunteer's pregnant women were included in Pfizer vaccine tests study, only one pregnant woman loss her pregnancy, and she had not received the actual vaccine but a placebo³. The Myth is if I have prior suffered from COVID-19, I do not need vaccine. But the fact is, people who suffered with COVID19 should be vaccinated for reduce the chance of re-infection, People must advise to get COVID-19 vaccine even though previously suffered with corona virus.⁴ The Myth about COVID-19 vaccine is that, "The efficacy and safety of vaccine cannot be reliable". The Fact is many researchers and companies involve in manufacturing the COVID-19 vaccine and reported that two initial vaccines have about 95% of efficacy, and observed no life-threatening side effects. There are many reasons to developed COVID-19 vaccines so fast and quickly. Corona virus is so contagious and widespread. China promptly extracted and share the genetic information about COVID-19, thus researchers have been working on vaccines. The vaccines of COVID-19 from BioNTech, Pfizer and Moderna were produced with a technique that has been in development for years. The vaccine inventors did not skip any testing steps and try to gather data faster. World-wide governments invest and paid plenty of resources on vaccine projects. Biotechnology helps a lot in the development of COVID-19 vaccines by using mRNA. These technology allows faster approach of vaccine development than the previous traditional methods.^{2,5} The Pfizer, Astrazeneca and Moderna, COVID-19 vaccines have some minor side effects such as some people experience pain at injection site, body ache, headache and fever for a day or

two. These signs indicate that the vaccine is working and stimulate the immune system of the body.⁶ The Myth is COVID-19 vaccine enters your body cells and changes your DNA, but the **fact is**, COVID-19 vaccines are designed to activate the immune system of human body results to fight the coronavirus. Some of the COVID-19 vaccine containing mRNA to make protein can enter the cell but do not enter the nucleus of the cells. The mRNA is only responsible to make protein which boosts the immune system of the body and quickly degrades without effecting human DNA. The Myth is mRNA biotechnology used to make the COVID-19 vaccine is a new technology. But fact is mRNA biotechnology is not a new technology, beside this almost two decades prior it has been developed.⁷ The Myth about COVID-19 vaccine is, that Vaccine contain tracking devices and microchips, but the **fact is** COVID-19 vaccines is normal vaccine which contain messenger RNA (authorized by the FDA), fats that protect the mRNA, small amount of sugar and salts.

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