

## COVID-19 VACCINES; MYTHS AND FACTS

Nazeeha Waseem<sup>1</sup>, Muhammad Ahmad Naeem<sup>2</sup>

<sup>1,2</sup>Department of Radiological Sciences and Medical Imaging, The University of Lahore Gujrat

---

This editorial may be cited as: Waseem N, Naeem MA. COVID-19 vaccines; myths and facts. *Ann Allied Health Sci.* 2021;7(1):1-2.

---

Can COVID-19 vaccine alter/ change my DNA? It's a myth as the COVID-19 vaccines can't interact or change the DNA in any way. Both viral vector and mRNA COVID vaccines deliver the genetic material (instructions) to the cells in our body. These instructions help our cells to build protection against the COVID-19 virus.<sup>1</sup> This genetic material never enters the nucleus of the cell, which is the organelle where our DNA is kept. So, it's impossible for COVID-19 vaccine to alter or change our DNA. Can I be tested positive for COVID-19 on a viral test after receiving the vaccine? We may test positive on some antibody tests, if our body develops an immune response, which is basically the goal of vaccination. Antibody tests actually indicate some level of protection against the virus. We should also remember that none of the recommended or authorized COVID-19 vaccines cause us to test positive on viral tests. So it's a myth.<sup>2,3</sup>

The recommended vaccines are proven effective and safe. These vaccines have gone through rigorous processes and testing by Food and Drug Administration. We must thank the unprecedented global investment and collaboration for the development of vaccines. None of the steps in vaccine production were skipped and clinical trials were held on thousands of individuals before the public use of vaccine. So the COVID-19 vaccines are completely safe and effective. Is there a tracking device in COVID-19? This myth is prevalent in South Asia specifically. People relate the COVID vaccines as a conspiracy theory because of lack of knowledge. There's no chip or tracking device installed in the COVID-19 vaccines. As explained above, these vaccines

underwent rigorous testing by the health authorities so it's a myth.<sup>4</sup>

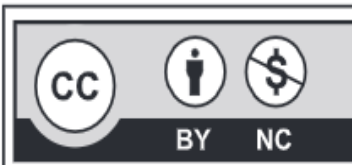
Just like any other vaccine, this vaccine also has mild side effects, but the effects are never severe enough to warrant an emergency situation unless there's a history of extreme allergy. The common side effects of COVID-19 vaccines in a small group of people can be mild body pain, headache, chills, and sometimes fever. There's massive disinformation on the social media regarding vaccines. One of the myths suggests that vaccine trains the body to attack a protein in the placenta known as "syncytin-1" which could lead to infertility in women. However virologists and health experts suggest that COVID-19 vaccine doesn't affect the placenta directly or indirectly so it's not possible for the vaccines to affect fertility.<sup>5</sup>

The immunity which a person gains after having an infection is known as natural immunity and it can vary from person to person. Some research studies suggest that this natural immunity doesn't last very long. On the other hand the immunity provided by COVID-19 vaccine is long term so it's important to receive the vaccine after infection. The COVID-19 vaccines doesn't contain live virus. It either contains mRNA or inattenuated part of virus so a person can never get the virus from the COVID-19 vaccines. Physical distancing, masking and hand washing are essential for public to follow, until a sufficient number of people are immune.<sup>6</sup>

### REFERENCES

1. Ullah, I., Khan, K. S., Tahir, M. J., Ahmed, A., & Harapan, H. (2021). Myths and conspiracy theories on vaccines and COVID-19: Potential effect on global vaccine refusals. *Vacunas*, 22(2), 93–97.

2. Travezaño-Cabrera, A., Cabrera-Lliuyac, N., & Travezaño-Cabrera, J. (2021). SARS-CoV-2 and the myths about vaccination. SARS-CoV-2 y los mitos sobre la vacunación. *Enfermería clinica (English Edition)*, 31(3), 199–200.
3. Panday, D. R., , Panday, K. R., , & Rauniar, G. P., (2020). COVID-19: All Facts, No Myth. *Kathmandu University medical journal (KUMJ)*, 18(70), 80–89.
4. Sahoo, S., Padhy, S. K., Ipsita, J., Mehra, A., & Grover, S. (2020). Demystifying the myths about COVID-19 infection and its societal importance. *Asian journal of psychiatry*, 54, 102244.
5. Barbari A. (2021). COVID-19 Vaccine Concerns: Fact or Fiction?. *Experimental and clinical transplantation : official journal of the Middle East Society for Organ Transplantation*, 10.6002/ect.2021.0056. Advance online publication.
6. Chirumbolo S. (2021). Vaccination hesitancy and the "myth" on mRNA-based vaccines in Italy in the COVID-19 era: Does urgency meet major safety criteria?. *Journal of medical virology*, 93(7), 4049–4053. <https://doi.org/10.1002/jmv.26922>



This is an Open Access article distributed in accordance with the terms of the Creative Commons Attribution (CC BY 4.0) license, which permits others to distribute, remix, adapt and build upon this work, for commercial use, provided the original work is properly cited. See: <http://creativecommons.org/licenses/by/4.0/>