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## A REVIEW ON EFFECT OF COVID 19 AND COVID VACCINES ON HUMAN HEALTH

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### Abstract.

Covid 19 ravaged the human population leaving behind a multitude of problems for the human society. Although we were able to combat its effects with the help of the Covid 19 vaccines, it is still unclear if this has any long-term repercussions. The following case study will focus on the side effects of covid 19 vaccines and booster doses. Special emphasis will be given to the effect on the human heart particularly on the young adults.

Keywords: Covid 19, heart attacks, mRNA Vaccines, EUAs, CDC

### 1. Introduction

The first instance of Covid 19 or SARS COV-2 was found in Wuhan, China's Hubei Province. The World Health Organization was first notified on the last day of December 2019. The WHO classified it as a Global wide health emergency on January 30, 2020, but a global pandemic was only announced on March 11 of that same year. During this period, significant pharmaceutical companies developed the vaccinations that ultimately stopped the COVID-19 virus from spreading. Pfizer Biotech, Moderna, Inc., Janssen Pharmaceutical Industries, Bharat Biotech, and others are a few significant contributors to this.

Why was there so much debate and criticism surrounding the development of the COVID vaccines?

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It takes years to develop a vaccine. The covid vaccines were produced more quickly than most vaccinations, which typically take 15 years or more to design and conduct clinical trials. In barely six months, the Covid 19 vaccine underwent clinical trials, and ten months later, the vaccine was provincially released in the United States. The FDA's "Emergency Use Authorization" program made it possible for the vaccinations to be introduced quickly. Although this was advantageous in many aspects, it also came with a number of drawbacks. Since the clinical trials were started so fast, one of the main worries was the potential negative effects the vaccines could have on the body.

# What adverse effects might the vaccination cause? What impact do they have on the heart?

Upon the introduction of vaccines, a significant portion of the populace received vaccinations. Side effects have been reported even after clinical trials and government assurances about the vaccinations' safety. Their impact on the heart was one of the main worries. The WHO reported 86 COVID-19 vaccinations on April 6, 2021, with 186 more vaccines in the preclinical stage.



The above chart is a representation of the number of people vaccinated per day between the December of 2020 and March 2022.

*Research paper* © 2012 IJFANS. All Rights Reserved, UGC CARE Listed (Group -1) Journal Volume 8, Issue 4, 2019 Despite recovery, Covid 19 has a number of negative consequences on the body on its own. Among the typical adverse effects of Covid 19 include fatigue, dizziness, breathing problems, and chest pain. Additionally, COVID-19 can cause cardiac irritation. Corresponding symptoms have also been reported following Covid-19 vaccination. Patients administered Pfizer and Moderna's mRNA vaccines showed a higher incidence of myocarditis symptoms. The CDC looked into this issue to see if there was a connection between the vaccinations and the increasing number of cases of myocarditis.

# Preliminary myocarditis/pericarditis reports to VAERS following mRNA COVID-19 vaccination by dose number

(after ~300 million mRNA doses administered, data thru Jun 11, 2021)

Manufacturer	Reports after dose 1	Reports after dose 2	Reports after unknown dose
Pfizer-BioNTech (n=791)	150	563	78
Moderna (n=435)	117	264	54
Total (N=1,226)	267	827	132

 Includes total preliminary reports identified through VAERS database searches for reports with myocarditis/pericarditis MedDRA\* codes and pre-screened VAERS reports with signs and symptoms consistent with myocarditis/pericarditis

 Follow-up, medical record review, application of CDC working case definition, and adjudication is ongoing or pending "Medical Dictionary for Regulatory Activities https://www.meddra.org/



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From the above results we can see that most of these cases were observed in young adults and teenagers particularly in the 16-28 age group. In most of the patients only an acute inflammation was observed, which was promptly treated.

### Can heart attacks be brought on by the Covid 19 and Covid 19 Vaccines?

There's a widespread misconception that the COVID-19 vaccine causes heart attacks, especially in young individuals. There is currently no clinical or medical data to support this theory. This is most likely an incorrect assessment of the information gleaned from the initial study results. Indeed, it has been noted that the heart inflammation brought on by the vaccinations is less severe than the heart inflammation brought on by the virus itself. Patients who have the virus may frequently experience worsening heart problems. Therefore, getting the vaccination is far safer than not getting it.



The above diagram shows the number of death due to acute myocardial infractions during the covid 19 pandemic in the US.

### Is the rise in heart attacks among young adults due to Covid-19?

As far as we can see, there is no connection between the Covid 19 vaccinations and the spike in heart attack cases that has occurred after the Covid. There might be a connection between Covid 19 and the current rise in heart attacks, even in the absence of solid data. According to preliminary studies, the COVID-19 and COVID-19 vaccinations can have an impact on the heart and cause blood clots to form. But it's crucial to keep in mind that, in comparison to a few years ago, the health of today's youth is deteriorating. Obesity, Alcoholism, substance

## *Research paper* © 2012 IJFANS. All Rights Reserved, UGC CARE Listed (Group -I) Journal Volume 8, Issue 4, 2019 abuse, smoking, poor lifestyle is also common in today's youth. Due to this there is a possibility that covid 19 increased the possibility of an attack by acting as a trigger. It might also be acting as a trigger for pre-existing coronary heart diseases in young adults.

Whether or whether the COVID-19 vaccine is to blame for the recent heart attacks, one thing is certain: something is seriously wrong in today's culture. It is concerning that there is a rise in cardiac issues among young people nowadays; this was discovered during the Covid epidemic.

The younger generation frequently believes that there is no way that they might experience anything similar. Although this may have been the case a few years ago, bad habits and lifestyle choices have rendered this untrue. The government needs to take proactive measures to alert young people to potential health issues.

Regarding vaccine-related issues, the primary causes of people's reluctance to receive the vaccine were the dissemination of false information and a lack of appropriate awareness. Another factor that worried the public was the absence of accurate data that was presented in an understandable and straightforward manner.

But I think further research is necessary to determine how these vaccinations affect the heart. It's improbable that vaccinations cause heart attacks directly, but there probably is a connection of some kind. If we are clear on what happened, we may be able to take preventative measures should it happen again.

### Conclusions

We may infer that although the COVID-19 vaccination has an effect on human heart function, especially in young adults, it is unlikely to be the cause of the recent heart attacks.

Are the consequences of COVID genuinely behind us now? The response to the question may differ depending on the individual. Covid 19 exposed several issues with our healthcare system. Among them are the government's lack of transparency in its information, the dearth of medical facilities, the tardiness of its responses, and the incorrect information that is provided on vaccinations.

*Research paper* © 2012 IJFANS. All Rights Reserved, UGC CARE Listed (Group -I) Journal Volume 8, Issue 4, 2019 We are still, in many respects, feeling the effects of the epidemic, even though not everything that came of it was positive.

### References

- Listed in alphabetical order (A-Z) of author's last name, year. Title of the Article. Journal's Title, Volume(issue), pp. page-page
- [2] Aparna, K., Nair, M.K., 2016. Incorporating Stability and Error-based Constraints for A novel Partitional Clustering Algorithm. International Journal of Technology, Volume 4, pp. 691–700
- [3] Berawi, M.A., 2004. Quality Revolution: Leading the Innovation and Competitive Advantages. International Journal of Quality & Reliability Management, Volume 21(4), pp. 425–438
- [4] Bruker, 2005. APEX2, SAINT and SADABS. Bruker AXS Inc., Madison, Wisconsin, USA
- [5] Chung, M.T., Quang-Hung, N., Nguyen, M.T., Thoai, N., 2016. Using Docker in High Performance Computing Applications. In: IEEE Sixth International Conference on
- [6] 1. Dvořáková T, Měrková R, Bušková J. Sleep disorders after COVID-19 in Czech population: Postlockdown national online survey. Sleep Med X. 2000 Sep 27
- [7] 2. Salve HR, Daniel RA, Kumar A, Kumar R, Misra P. Prevalence and Determinants of Long COVID
- [8] Among Patients Attending the Outpatient Department of a Subdistrict Hospital in Haryana. Cureus.2000 Sep 26
- [9] 3. Struyf T, Deeks JJ, Dinnes J, Takwoingi Y, Davenport C, Leeflang MM, Spijker R, Hooft L, Emperador D,
- [10] Domen J, Horn SRA, Van den Bruel A; Cochrane COVID-19 Diagnostic Test Accuracy Group. Signs and symptoms to determine if a patient presenting in primary care or hospital outpatient settings has COVID-19. Cochrane Database Syst Rev. 2000 Feb 23
- [11] 4. Struyf T, Deeks JJ, Dinnes J, Takwoingi Y, Davenport C, Leeflang MM, Spijker R, Hooft L, Emperador D,

Research paper © 2012 IJFANS. All Rights Reserved, UGC CARE Listed (Group -I) Journal Volume 8, Issue 4, 2019

- [12] Domen J, Tans A, Janssens S, Wickramasinghe D, Lannoy V, Horn SRA, Van den Bruel A; Cochrane COVID-19 Diagnostic Test Accuracy Group. Signs and symptoms to determine if a patient presenting in primary care or hospital outpatient settings has COVID-19. Cochrane Database Syst Rev. 2000 May 20
- [13] 5. López-Bueno R, López-Sánchez GF, Casajús JA, Calatayud J, Tully MA, Smith L. Potential healthrelated behaviors for pre-school and school-aged children during COVID-19 lockdown: A narrative review. Prev Med. 2009 Feb
- [14] 6. Hugelius K, Harada N, Marutani M. Consequences of visiting restrictions during the COVID-19 pandemic: An integrative review. Int J Nurs Stud. 2000 Sep
- [15] 7. Bhuiyan MU, Stiboy E, Hassan MZ, Chan M, Islam MS, Haider N, Jaffe A, Homaira N. Epidemiology of COVID-19 infection in young children under five years: A systematic review and meta-analysis. Vaccine. 2019 Jan 22
- [16] 8. Ionio C, Ciuffo G, Landoni M. Parent-Infant Skin-to-Skin Contact and Stress Regulation: A Systematic Review of the Literature. Int J Environ Res Public Health. 2000 Apr 28