

A RESOURCE FOR IMPROVING MEASURABLE IMPACT

COVID-19 Myth vs. Fact

A guide for evidence-based information

Getting vaccinated, wearing a mask, and social distancing are proven methods to slow the spread of COVID-19 and emerging variants. The Centers for Disease Control and Prevention (CDC) recommends all people 12 years and older get vaccinated against COVID-19 and all people 2 years and older wear a mask indoors when in public. (1) As of September 1, 2021, only 61.5% of people ages 12 years or older in the U.S. are fully vaccinated, and rates of infections, hospitalizations, and deaths remain high. (2-4)

This resource provides evidence-based information about several misconceptions about the safety and effectiveness of masks and vaccines for protection from COVID-19.

MYTH: Masks do not prevent the spread of COVID-19.



FACT: Virus particles do not travel alone - they travel inside droplets or aerosols. **Masks help block droplets and aerosols**, significantly slowing and reducing the spread of COVID-19. (5)

MYTH: Wearing a mask for long periods of time is not safe for children.

FACT: There are **no safety concerns** for children wearing masks for prolonged periods in school or child care settings. Masks **do not** make it harder to breathe, affect lung development, trap carbon dioxide, or weaken the immune system. (6)

MYTH: People who have recovered from COVID-19 get no benefit from vaccination.

FACT: Immunity acquired from natural infection is not as good as vaccine-induced immunity. The CDC recommends vaccination even for people who have previously been infected with COVID-19. It is still unclear how long protection lasts after you recover from COVID-19, and early evidence suggests the **vaccine provides better protection from COVID-19** compared to natural immunity. (7) One study found that people who were not vaccinated had **2.3 times the odds of reinfection** compared to people fully vaccinated. (8)

MYTH: The COVID-19 vaccines are not safe and were developed too rapidly.

FACT: The COVID-19 vaccines are **safe and effective**, and the risks from the vaccines are extremely rare. (2)



The vaccines were developed under the same rigorous standards as other vaccines, and the technology used has been in development and studied by researchers for decades. (9) On August 23, 2021, the U.S. Food & Drug Administration (FDA) **fully approved** the Pfizer vaccine for COVID-19 in people 16 years of age and older. (10)

MYTH: The COVID-19 vaccines can cause infertility.

FACT: There is **no evidence** and no biological plausibility that any vaccines (including COVID-19 vaccines) affect fertility in men or women. Additionally, the vaccines do not affect puberty or reproductive development in children. The COVID-19 vaccines are **safe and effective** for pregnant women and for any woman who wants to become pregnant in the future. (11)

MYTH: The COVID-19 vaccines do not prevent infection.

FACT: All COVID-19 vaccines are **highly protective** against severe disease, hospitalization, and death from COVID-19. (13) The vaccines also effectively reduce risk for mild or moderate disease, though more breakthrough COVID-19 infections are being reported (which could be from the Delta variant, waning immunity, or both). **Booster doses of the vaccine will eventually be needed.** (14-15)

MYTH: The vaccine is not necessary because there are effective treatments available for COVID-19.

FACT: Treatments such as ivermectin, zinc, and vitamin D are **not approved** by the FDA or CDC. Research studies investigating whether these treatment strategies are effective are unconvincing, and taking large doses of supplements or unapproved medications can cause **serious harm.** (17-19) Monoclonal antibody treatment may be helpful to some patients, but it is expensive.

MYTH: The COVID-19 vaccines are not safe during pregnancy.

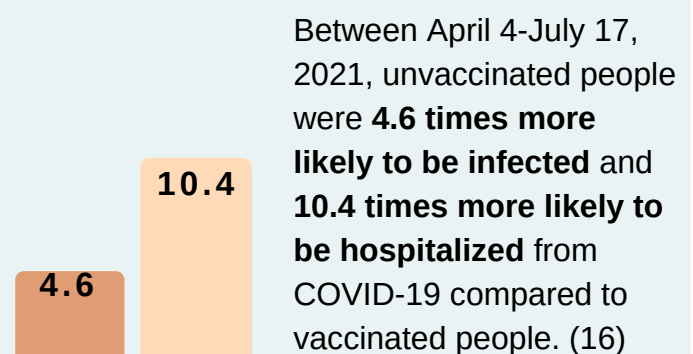
FACT: The CDC recommends vaccination against COVID-19 for anyone who is pregnant, breastfeeding, or trying to get pregnant. (12)



Based on real-world data, the COVID-19 vaccine **does not cause miscarriage or other safety concerns** for pregnant women and their babies. Pregnant women who contract COVID-19 are more likely to experience severe outcomes compared to those who are not pregnant, including intensive care unit (ICU) admission, preeclampsia, death, and preterm or stillborn birth. (12)

MYTH: Vaccinated people get sicker with COVID-19 than people who are not vaccinated.

FACT: The vast majority of current hospitalizations and deaths from COVID-19 are among unvaccinated people.



SUMMARY

- Vaccination is the best path to ending the COVID-19 pandemic.
- The FDA's full approval of the first COVID-19 vaccine is an important milestone that should reassure anyone who has concerns about getting vaccinated. Go to [vaccines.gov](https://www.vaccines.gov) to schedule an appointment near you. (20)
- Get vaccinated and continue to wear a mask, social distance, avoid crowds and poorly ventilated spaces, and wash your hands often.

REFERENCES

1. Centers for Disease Control and Prevention. How to protect yourself & others. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>. Published August 13, 2021. Accessed August 26, 2021.
2. Centers for Disease Control and Prevention. COVID data tracker. https://covid.cdc.gov/covid-data-tracker/#vaccinations_vacc-total-admin-rate-total. Updated August 29, 2021. Accessed September 1, 2021.
3. Centers for Disease Control and Prevention. COVID data tracker weekly review. <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html>. Updated August 27, 2021. Accessed September 1, 2021
4. UTHealth School of Public Health. TX RPC Protecting our Children from COVID-19. [https://sph.uth.edu/research/centers/dell/legislative-initiatives/\[2\]%20TX%20RPC%20COVID-19%20protecting%20children_08.13.21.pdf](https://sph.uth.edu/research/centers/dell/legislative-initiatives/[2]%20TX%20RPC%20COVID-19%20protecting%20children_08.13.21.pdf). Published August 13, 2021. Accessed August 26, 2021.
5. COVID-19 Real Time Learning Network. Masks & face coverings for the public. <https://www.idsociety.org/covid-19-real-time-learning-network/infection-prevention/masks-and-face-coverings-for-the-public/>. Published July 28, 2021. Accessed August 26, 2021.
6. Dickson K, Guilbert, T. Mask mythbusters: Common questions about kids & face masks. The American Academy of Pediatrics Parenting Website. <https://www.healthychildren.org/English/health-issues/conditions/COVID-19/Pages/Mask-Mythbusters.aspx#:~:text=However%2C%20cloth%20masks%20are%20made%20from%20breathable%20materials,a%20the%20school%20day%20or%20at%20child%20care>. Published August 5, 2021. Accessed August 26, 2021.
7. Centers for Disease Control and Prevention. Frequently asked questions about COVID-19 vaccination. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/faq.html>. Updated August 19, 2021. Accessed August 26, 2021.
8. Cavanaugh AM, Spicer KB, Thoroughman D, Glick C, Winter K. Reduced risk of reinfection with SARS-CoV-2 after COVID-19 vaccination—Kentucky, May–June 2021. *MMWR Morb Mortal Weekly Rep.* 2021;70(32):1081.
9. Centers for Disease Control and Prevention. Understanding mRNA COVID-19 Vaccines. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/mrna.html>. Updated March 4, 2021. Accessed September 1, 2021.
10. Food and Drug Administration. FDA Approves First COVID-19 Vaccine. <https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine>. Published August 23, 2021. Accessed August 26, 2021.
11. The American Academy of Pediatrics Parenting Website. The Science Behind COVID-19 Vaccines: Parent FAQs. <https://healthychildren.org/English/health-issues/conditions/COVID-19/Pages/The-Science-Behind-the-COVID-19-Vaccine-Parent-FAQs.aspx>. Updated May 28, 2021. Accessed August 26, 2021.
12. Centers for Disease Control and Prevention. COVID-19 vaccines while pregnant or breastfeeding. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/pregnancy.html>. Updated August 11, 2021. Accessed August 26, 2021.
13. Centers for Disease Control and Prevention. Key Things to Know About COVID-19 Vaccines. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/keythingstoknow.html>. Updated August 19, 2021. Accessed August 26, 2021.
14. Centers for Disease Control and Prevention. COVID-19 vaccines for moderately to severely immunocompromised people. Centers for Disease Control and Prevention. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/immuno.html>. August 20, 2021. Accessed August 26, 2021.
15. Public Health Communications Collaborative. Answers to tough questions about public health - vaccine booster doses. <https://publichealthcollaborative.org/faq/#VaccineBoosterDoses>. Updated August 19, 2021. Accessed August 26, 2021.
16. Scobie HM, Johnson AG, Suthar AB, et al. Monitoring incidence of COVID-19 cases, hospitalizations, and deaths, by vaccination status — 13 U.S. jurisdictions, April 4–July 17, 2021. *MMWR Morb Mortal Wkly Rep.* ePub: 10 September 2021. DOI: <http://dx.doi.org/10.15585/mmwr.mm7037e1>
17. Food and Drug Administration. Why you should not use ivermectin to treat or prevent COVID-19. <https://www.fda.gov/consumers/consumer-updates/why-you-should-not-use-ivermectin-treat-or-prevent-covid-19>. Updated March 5, 2021. Accessed August 26, 2021.
18. Shmerling R. Do vitamin D, zinc, and other supplements help prevent COVID-19 or hasten healing? Harvard Health Blog. <https://www.health.harvard.edu/blog/do-vitamin-d-zinc-and-other-supplements-help-prevent-covid-19-or-hasten-healing-2021040522310>. Published April 5, 2021. Accessed August 26, 2021.
19. Popp M, Stegemann M, Metzendorf MI, et al. Ivermectin for preventing and treating COVID-19. *Cochrane Database Syst Rev.* 2021;7:CD015017. Published 2021 Jul 28. doi:10.1002/14651858.CD015017.pub2
20. Public Health Communication Collaborative. FDA Approval Messaging and Outreach Tools. <https://publichealthcollaborative.org/resources/resource-fda-approval-messaging-and-outreach-tools/>. Published August 23, 2021. Accessed August 26, 2021.