

July 19, 2021

To Whom It May Concern:

I would like to provide some scientific research on the efficacy of masks in general and the lack of support for mandating masks in children.

Data now suggests that children have extremely low risk of developing COVID-19. They naturally have the capability of evading the SARS-CoV-2 virus because of strong immune systems¹ and the fewer ACE2 receptor proteins (to which the SARS-CoV-2 virus attaches) in their nostrils.^{2, 3}

The Centers for Disease Control and Prevention (CDC) reported their findings from North Carolina and Wisconsin schools that in school transmission was “very rare.”^{4,5} According to research in the scientific journal, *Nature*, the risk of children dying from COVID-19 is “incredibly rare.”⁶ Moreover, children are at low risk of spreading the SARS-CoV-2 virus to their contacts.^{7,8,9}

There are numerous studies before and after the COVID outbreak that show the ineffectiveness of cloth and surgical masks for viruses of 0.125 microns (the size of SARS-CoV-2 and influenza viruses).^{10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25}

Recently, the marine recruit study published in the *New England Journal of Medicine* found SARS-CoV-2 transmission despite the recruits wearing double layered masks in a strictly monitored environment.²⁶ The recent randomized controlled Danish study published in the *Annals of Internal Medicine* assessed mask use outside the home.²⁷ The sample included a total of 3,030 participants who were assigned randomly to wear masks, and 2,994 who were told to not wear masks (i.e., the control arm). The researchers reported that 4,862 persons completed the study. Infection with SARS-CoV-2 occurred in 42 participants who wore masks (1.8%) while 53 participants in the control group developed infection (2.1%). The between-group difference was -0.3 percentage point in favor of mask-use (95% CI, -1.2 to 0.4 percentage point; p = 0.38). The authors concluded that there was no statistically or clinically significant impact of mask-use in regard to the rate of infection with SARS-CoV-2.

Additionally, Professor Yvonne Cossart of the Department of Infectious Diseases at the University of Sydney noted that after about 20 minutes the masks ceased to function due to saturation with moisture from the wearer’s breath.²⁸

Further, evidence is emerging that masks can be harmful, particularly to children.^{29,30,31,32,33} Self-contamination through repeated use and improper removal is likely as a contaminated cloth mask may transfer pathogen from the mask to the bare hands of the wearer.³⁴ The February 2021 CDC mask study reported that masking may impede breathing.³⁵

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This is likely to bring on anxiety in children. Additionally, masks may lower the wearer's oxygen saturation.³⁶ Brain cells are extremely sensitive to lack of oxygen thus brain function could be adversely affected.^{37,38}

Early on in the pandemic, psychologists raised concerns about psychological damage associated with masking.³⁹ Child development is likely hindered by the use of masks as children rely heavily on facial cues.^{40,41} Of course these issues would be exacerbated in children with special needs, particularly those within the autism spectrum.⁴² Finally, anxiety surrounding masking increases the vulnerability of the immune system.⁴³

In short, children do not easily acquire the SARS-CoV-2 virus or spread it to others. In the rare cases where a child contracts COVID-19, the likelihood of severe illness or death is near zero. Masks have not been shown to be efficacious in preventing transmission of influenza and SARS-CoV-2 viruses. Asymptomatic spread of the SARS-CoV-2 virus is rare and indeed a study of 10 million people found no spread.⁴⁴ Worse yet, masking may do harm to children. All data considered, and acknowledging that zero risk is unattainable, the risks outweigh the benefits of forcing children to wear masks.

Rather than masking, children can simply be required to stay home if they are sick. All persons should wash their hands and use good respiratory etiquette (cough and sneeze into one's elbow).

Sincerely,


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¹ <https://www.nature.com/articles/d41586-020-03496-7>

² <https://jamanetwork.com/journals/jama/fullarticle/2766522>

³ <https://jamanetwork.com/journals/jama/fullarticle/2766522>

⁴ <https://jamanetwork.com/journals/jama/fullarticle/2775875?resultClick=1>

⁵ https://www.cdc.gov/mmwr/volumes/70/wr/mm7004e3.htm?s_cid=mm7004e3_w

⁶ <https://www.nature.com/articles/d41586-021-01897-w>

⁷ <https://pubmed.ncbi.nlm.nih.gov/32596514/>

⁸ <https://brighterworld.mcmaster.ca/articles/reviews-find-children-not-major-source-of-covid-19-but-family-stress-is-high/>

⁹ <https://pubmed.ncbi.nlm.nih.gov/32489179/>

¹⁰ <https://www.acpjournals.org/doi/10.7326/M20-6817>

¹¹ <https://www.nejm.org/doi/full/10.1056/NEJMoa2029717>

¹² https://wwwnc.cdc.gov/eid/article/26/5/19-0994_article

¹³ <https://www.cidrap.umn.edu/news-perspective/2020/04/commentary-masks-all-covid-19-notbased-sound-data>

¹⁴ <https://www.nejm.org/doi/full/10.1056/NEJMp2006372>

¹⁵ <https://www.nejm.org/doi/full/10.1056/NEJMp2006372>

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