The COVID mantra for children “Not a thing” is disinformation and dangerous for children

Health Watch USA OpEds Regarding COVID-19 and Children:

- COVID is still a problem, and we need to do more to stop it | Opinion. Lexington Herald Leader. Nov. 1, 2024. https://www.kentucky.com/opinion/op-ed/article294875999.html#storylink=cpy

- COVID is closing Kentucky schools – again. Embracing disinformation paralyzes our response. Sept. 6, 2023. USA Today. https://www.usatoday.com/story/opinion/2023/09/06/kentucky-school-districts-close-covid-upgrade-buildings-ventilation/70765140007/

- 70% of COVID-19 Cases Transmitted By Children. Infection Control Today. June 5, 2023. https://www.infectioncontroltoday.com/view/70-covid-19-cases-transmitted-by-children

Impact of COVID on Children

Apr. 11, 2025. Kidney Function Following COVID-19 in Children and Adolescents
Among 1 900 146 pediatric patients (487 378 with and 1 412 768 without COVID-19). SARS-CoV-2 infection was associated with higher risk of new-onset CKD stage 2 or higher (HR, 1.17) and CKD stage 3 or higher (HR, 1.35). In this large US cohort study of children and adolescents, SARS-CoV-2 infection was associated with a higher risk of adverse postacute kidney outcomes, particularly among those with preexisting CKD or AKI... https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2832549

Feb. 7, 2025. Pediatric Gastrointestinal Tract Outcomes During the Postacute Phase of COVID-19
Children and adolescents with documented SARS-CoV-2 infection faced a 25% higher risk of newly diagnosed GI tract symptoms and disorders during the postacute phase compared with those without documented SARS-CoV-2 infection (incidence, 8.64% vs 6.85%).
https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2830031?resultClick=3

Dec. 4, 2024: Reports an overall incidence of long COVID of 7.2% in Children with between 20% to 25% in those who have had an infection.

A 24-month National Cohort Study examining long-term effects of COVID-19 in children and young people
"7.2% of CYP (Children and Young People) consistently fulfil the PCC (Post COVID-19 Condition) definition at 3-, 6-, 12- and 24-months. These CYPs have a median of 5-to-6 symptoms at each time-point. Between 20% and 25% of all infection status groups report 3+ symptoms 24-months post-testing; 10–25% experience 5+ symptoms. The reinfected group has more symptoms than the other positive groups; the NN (Negative Test) group has the lowest symptom burden ($p < 0.001$). PCC is more common in older CYPs and in the most deprived. Symptom severity/impact is higher in those fulfilling the PCC definition."
https://www.nature.com/articles/s43856-024-00657-x

Nov. 27, 2024: Long COVID syndrome in children: neutrophilic granulocyte dysfunction and its correlation with disease severity

Nature: "Many children suffer from lingering symptoms after COVID-19, known as long COVID syndrome (LCS), otherwise called Post COVID-19 Condition (PCC). Despite extensive research, the prevalence of symptoms, its impact on quality of life, and underlying mechanisms still need to be fully understood. As neutrophilic granulocytes play an essential role in COVID-19, and their prolonged disruption was found to cause immunological diseases, we hypothesized their ongoing disturbed functionality in LCS."
Results: "Persistent fatigue was the most common symptom in children with LCS, while both control groups complained about anxiety most frequently. LCS children experienced significantly more symptoms, impairing their QoL-F compared to CG+. Neutrophilic granulocyte dysfunction was found in LCS children, with decreased superoxide-producing activity and phagocytosis compared to CG+. The number of complaints of children with LCS correlated significantly with altered neutrophil effector functions." https://www.nature.com/articles/s41390-024-03731-1

2024, Oct. 20. Increased post-COVID-19 behavioral, emotional, and social problems in Taiwanese children
"84 children aged 6–16 received assessments within 6 months after being tested positive for COVID-19. ….Compared with the control group, the COVID group in the post-COVID condition had more severe symptoms of inattention, hyperactivity-impulsivity, opposition, a wide range of emotional and behavioral problems, and poor school functions, school attitude, social interaction, school behavioral problems, and interaction problems with their parents. Compared with the pre-COVID condition, the COVID group had greater severity of inattention, somatic complaints, thought problems, internalizing problems, poor school functions, and interaction problems with their parents in the post-COVID condition."
https://www.sciencedirect.com/science/article/pii/S0929664624004947?s=03

2024, Oct. 2: Long COVID Rates in Kids Revised Upward: What to Know Long COVID Rates in Kids Revised Upward: What to Know (medscape.com)
Long COVID in children is much more common than once thought." The study, which followed 5367 children, found that 20% of kids (ages 6-11) and 14% of teens met researchers' threshold for long COVID.

Gross RS, Thaweethai T, Kleinman LC, et al. Characterizing Long COVID in Children and Adolescents. *JAMA.* 2024;332(14):1174–1188. doi:10.1001/jama.2024.12747

2024, Sept. 26. COVID-19–Associated Hospitalizations and Maternal Vaccination Among Infants Aged <6 Months — COVID-NET, 12 States, October 2022–April 2024
"Infants aged <6 months have high COVID-19–associated hospitalization rates and are not age-eligible for COVID-19 vaccination." "Among approximately 1,000 hospitalized infants with COVID-19, 22% were admitted to an intensive care unit, and nine died while hospitalized. The percentage of hospitalized infants whose mothers had been vaccinated during pregnancy was 18% during October 2022–September 2023 and decreased to <5% during October 2023–April 2024.

COVID-19 can cause severe disease in infants aged <6 months; prevention should focus on ensuring that pregnant persons receive recommended COVID-19 vaccines to protect themselves and their young infants. "
https://www.cdc.gov/mmwr/volumes/73/wr/mm7338a1.htm?s_cid=mm7338a1_w#contribAff

2024, Aug. Long COVID Rates in Kids Revised Upward: What to Know

The August study, publish in the Journal of the American Medical Association, is among the first large comprehensive studies of the disorder in this age group. The study, which followed 5367 children, found that 20% of kids (ages 6-11) and 14% of teens met researchers' threshold for long COVID.

Until now, research has been lacking because children were thought to be less susceptible to both acute COVID-19 and long COVID, experts say. But by some estimates, up to 5.8 million kids and teens have the disorder.

Study author Rachel Gross, MD, an associate professor in the departments of pediatics and population health at NYU Langone, is in line with the percentage of adults diagnosed with long COVID.

The new research found that long COVID affected nearly every organ system in kids and teens. And experts contend that pediatricians need to be on the lookout for gastrointestinal complaints in kids as well as complaints of extreme fatigue and cognitive deficits or perceived changes in mental acuity in teenagers.

https://www.medscape.com/viewarticle/long-covid-rates-kids-revised-upward-what-know-2024a1000hzi
Characterizing Long COVID in Children and Adolescents | Pediatrics | JAMA | JAMA Network

2024, Feb 27. Neuroimaging findings in children with COVID-19 infection: a systematic review and meta-analysis

"Of these, five reports (encompassing 111 patients) underwent quantitative analysis. The pooled proportion of pediatric COVID-19 patients with neurological symptoms and exhibiting abnormal neur imaging findings was 43.74%. These findings were further categorized into neurovascular findings (8.22%), ADEM-like lesions (7.69%), encephalitic pattern (13.95%), myelitis (4.60%), transient splenial lesions (16.26%), and other abnormalities (12.03%). " Scientific Reports**.**
https://www.nature.com/articles/s41598-024-55597-2

2023, Aug. Long COVID in Children and Youth After Infection or Reinfection with the Omicron Variant: A Prospective Observational Study
Overall, 12%-16% of those infected with Omicron met the research definition of long COVID at 3 and 6 months after infection. https://www.sciencedirect.com/science/article/pii/S0022347623003116
https://www.jpeds.com/article/S0022-3476(23)00311-6/fulltext

June. 30, 2023. Incidence of Diabetes in Children and Adolescents During the COVID-19 Pandemic A Systematic Review and Meta-Analysis
This study found that incidence rates of type 1 diabetes and DKA at diabetes onset in children and adolescents were higher after the start of the COVID-19 pandemic than before the pandemic.
https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2806712

May 22, 2023. Type 1 Diabetes Incidence and Risk in Children With a Diagnosis of COVID-19

"The age- and sex-adjusted hazard ratio for type 1 diabetes development in 2020-2021 was 1.57 (95% CI, 1.32-1.88; P < .001) with any COVID-19 diagnosis and 1.69 (95% CI, 1.31-2.18; P < .001) when only virus-

confirmed cases were considered."
https://jamanetwork.com/journals/jama/fullarticle/2805461

2023, April 1: Battling long COVID: Pediatricians talk strategies, prevention measures for children with lingering symptoms -- American Academy of Pediatrics
"A lot more kids are getting repeated COVID infections," said Dr. Edwards, a physician in the Division of Pediatric Infectious Diseases and associate medical director for infection control at UH Rainbow Babies & Children's Hospital. "It's not unusual to see somebody get COVID in January, then in April and again in September. What we often see is by that second or third infection, they develop long COVID. That, for me, is very concerning."
https://aap2.silverchair-cdn.com/aap2/content_public/autogen-pdf/cms/23776/23776.pdf
https://publications.aap.org/aapnews/news/23776

2023, Jan: For Parents: Multisystem Inflammatory Syndrome in Children (MIS-C) associated with COVID-19
Multisystem inflammatory syndrome in children (MIS-C) is a rare condition associated with SARS-CoV-2 (the virus that causes COVID-19), that usually occurs 2-6 weeks after a child is infected with SARS-CoV-2.
https://www.cdc.gov/mis/mis-c.html

2022, Nov: Post-COVID-19-associated morbidity in children, adolescents, and adults: A matched cohort study including more than 157,000 individuals with COVID-19 in Germany (Insurance Company Records)
Germany - Controlled Study. Long COVID occurs in Children Less Frequently than adults. Children post COVID were 30% more likely than controls to have long term symptoms (2.28 times more likely to have fatigue and exhaustion)
https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1004122

2022, June: Long COVID symptoms in SARS-CoV-2-positive children aged 0–14 years and matched controls in Denmark (LongCOVID Kids DK): a national, cross-sectional study
https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(22)00154-7/fulltext

2022, May: At Least Half a Million U.S. Kids Are Struggling With Long Covid
They seem to get long Covid less than adults, but Daniel Griffin, an infectious diseases expert at Columbia University who treats Covid patients and hosts a weekly podcast update on the disease, said that about 5% to 10% of kids who've had the virus come down with long-term symptoms.
https://www.bloomberg.com/news/newsletters/2022-05-06/coronavirus-latest-half-a-million-u-s-kids-may-suffer-from-long-covid

2022, Feb: Risk factors for long covid in previously hospitalised children using the ISARIC Global follow-up protocol: A prospective cohort study
At the time of the follow-up interview (> 5 months) 126 (24.3%) participants reported persistent symptoms among which fatigue (53, 10.7%), sleep disturbance (36, 6.9%,) and sensory problems (29, 5.6%) were the most common.
https://erj.ersjournals.com/content/early/2021/06/10/13993003.01341-2021

2022, Feb 18. Long-Term COVID 19 Sequelae in Adolescents: the Overlap with Orthostatic Intolerance

and ME/CFS
It is now clear that those with relatively mild initial infections, without severe initial respiratory disease or end-organ injury, can still develop chronic impairments, with symptoms that overlap with conditions like ME/CFS (profound fatigue, unrefreshing sleep, post-exertional malaise, cognitive dysfunction, and orthostatic intolerance). https://twu.edu/media/documents/woodcock-institute/COVIDLongterm.pdf

2022, Jan. 7: Effectiveness of BNT162b2 (Pfizer-BioNTech) mRNA Vaccination Against Multisystem Inflammatory Syndrome in Children Among Persons Aged 12–18 Years — United States, July–December 2021
"Multisystem inflammatory syndrome in children (MIS-C) is a severe postinfectious hyperinflammatory condition, which generally occurs 2–6 weeks after a typically mild or asymptomatic infection with SARS-CoV-2, the virus that causes COVID-19 (1–3)."
"Estimated effectiveness of 2 doses of Pfizer-BioNTech vaccine against MIS-C was 91%"
https://www.cdc.gov/mmwr/volumes/71/wr/mm7102e1.htm

2021, Dec: COVID-19 Schools Infection Survey, England: mental health and long COVID, November to December 2021 (Office of National Statistics -- England)
"Since March 2020, 1.0% of primary school-aged pupils and 2.7% of secondary school-aged pupils met the Delphi criteria for having experienced long COVID lasting at least 12 weeks."
https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/covid19schoolsinfectionsurveyengland/mentalhealthandlongcovidnovembertodecember2021

2021, Sept 10: Hospitalizations in children 10 times higher in the Unvaccinated adolescents.
https://www.cdc.gov/mmwr/volumes/70/wr/mm7036e2.htm

Immunohypofunction

Surges of RSV in Children, also seen in Sweden.
https://www.folkhalsomyndigheten.se/folkhalsorapportering-statistik/statistik-a-o/sjukdomsstatistik/rsv-veckorapporter/aktuell-veckorapport-om-rsv/
"As discussed in Bergmann S. and Lindström M.'s 2022 book "Sweden's Pandemic Experiment" there was almost a total lack of public masking in Sweden and nationwide closure of kindergartens and primary schools never occurred"

Sweden also had surges in Severe Influenza.
Most recently, Sweden has undergone a significant surge in seasonal flu (see Figure), with reports from the Public Health Agency of Sweden of unusually severe cases. These cases have occurred in "*people under the age of 18 without underlying disease or condition, have been very seriously ill with complications such as myocarditis or encephalitis*. (translated)"

Oct. 13, 2023. Association of COVID-19 with respiratory syncytial virus (RSV) infections in children aged 0–5 years in the USA in 2022: a multicentre retrospective cohort study.
COVID-19 was associated with a significantly increased (approximately 40% greater) risk for RSV infections in children aged 0–5 years.
"For the 2022 study population (average age 2.4 years, 46.8% girls, 61% white, 16% black), the risk for incident RSV infection during October 2022–December 2022 was 6.40% for children with prior COVID-19

infection, higher than 4.30% for the matched children without COVID-19 (RR 1.40, 95% CI 1.27 to 1.55); and among children aged 0–1 year, the overall risk was 7.90% for those with prior COVID-19 infection, higher than 5.64% for matched children without (RR 1.40, 95% CI 1.21 to 1.62). For the 2021 study population (average age 2.2 years, 46% girls, 57% white, 20% black), the risk for incident RSV infection during July 2021–December 2021 was 4.85% for children with prior COVID-19 infection, higher than 3.68% for the matched children without COVID-19 (RR 1.32, 95% CI 1.12 to 1.56); and 7.30% for children aged 0–1 year with prior COVID-19 infection, higher than 4.98% for matched children without (RR 1.47, 95% CI 1.18 to 1.82)." Family Medicine and Community Health.
https://pmc.ncbi.nlm.nih.gov/articles/PMC10582888/

Immunological Response

2023, Jan. Tracking the clonal dynamics of SARS-CoV-2-specific T cells in children and adults with mild/asymptomatic COVID-19 – ScienceDirect
"This was associated with the development of robust CD4+ memory T cell responses in adults but not children. These data suggest that rapid clearance of SARS-CoV-2 in children may compromise their cellular immunity and ability to resist reinfection."
https://www.sciencedirect.com/science/article/pii/S152166162200290X

Children Heart Disease

2022, Dec: Mid- and Long-Term Atrio-Ventricular Functional Changes in Children after Recovery from COVID-19
Journal of Clincial Medicine "Our findings shed new light on the cardiac impact of COVID-19 in paediatric age. In fact, we showed for the first time that 60% of children who recovered from asymptomatic or mildly symptomatic COVID-19 still exhibit mild subclinical systolic cardiac impairment after an average follow-up of 148 ± 68 days from disease onset. This subtle impairment in myocardial deformation was worse in the LV apical region of COVID-19 children who recovered during the second wave compared to the first wave." https://www.mdpi.com/2077-0383/12/1/186

2020, Dec. 7: CHOP Researchers Find Elevated Biomarker Related to Blood Vessel Damage in All Children with SARS-CoV-2 Regardless of Disease Severity
"Researchers at Children's Hospital of Philadelphia (CHOP) have found elevated levels of a biomarker related to blood vessel damage in children with SARS-CoV-2 infection, even if the children had minimal or no symptoms of COVID-19. They also found that a high proportion of children with SARS-CoV-2 infection met clinical and diagnostic criteria for thrombotic microangiopathy (TMA). TMA is a syndrome that involves clotting in the small blood vessels and has been identified as a potential cause for severe manifestations of COVID-19 in adults."

"The researchers found elevations of C5b9 in patients with severe COVID-19 and MIS-C, but to their surprise, they also found that C5b9 was elevated in patients with minimal or asymptomatic disease. Although the study was prospective, meaning patients were enrolled and data collected from the time of hospitalization, the researchers obtained some of the laboratory data retrospectively when it came to evaluating whether they met the clinical criteria for TMA. Of the 22 patients for whom complete data were available, 19 (86%) met the criteria for TMA. Additionally, sC5b9 levels were elevated both in patients who did and did not meet criteria for TMA."
https://www.chop.edu/news/chop-researchers-find-elevated-biomarker-related-blood-vessel-damage-

all-children-sars-cov-2

Spread – Households

2020, Dec 7: CHOP Researchers Find Elevated Biomarker Related to Blood Vessel Damage in All Children with SARS-CoV-2 Regardless of Disease Severity
"Researchers at Children's Hospital of Philadelphia (CHOP) have found elevated levels of a biomarker related to blood vessel damage in children with SARS-CoV-2 infection, even if the children had minimal or no symptoms of COVID-19. They also found that a high proportion of children with SARS-CoV-2 infection met clinical and diagnostic criteria for thrombotic microangiopathy (TMA). TMA is a syndrome that involves clotting in the small blood vessels and has been identified as a potential cause for severe manifestations of COVID-19 in adults."

"The researchers found elevations of C5b9 in patients with severe COVID-19 and MIS-C, but to their surprise, they also found that C5b9 was elevated in patients with minimal or asymptomatic disease. Although the study was prospective, meaning patients were enrolled and data collected from the time of hospitalization, the researchers obtained some of the laboratory data retrospectively when it came to evaluating whether they met the clinical criteria for TMA. Of the 22 patients for whom complete data were available, 19 (86%) met the criteria for TMA. Additionally, sC5b9 levels were elevated both in patients who did and did not meet criteria for TMA."

https://www.chop.edu/news/chop-researchers-find-elevated-biomarker-related-blood-vessel-damage-all-children-sars-cov-2

2020, October. Contact Tracing during Coronavirus Disease Outbreak, South Korea, 2020
Contact tracing study in South Korea, where 10 to 19 year olds most likely to spread COVID-19 to household contacts. The least likely was the age group 0 to 9. However, as early as 2020 it was observed that children can spread the disease. https://wwwnc.cdc.gov/eid/article/26/10/20-1315_article

2020 Dec. Weekly report on COVID-19, week 50
70% of SARS-CoV-2 outbreaks in Sweden were associated with elementary, grammar and nursery schools. https://www.folkhalsomyndigheten.se/globalassets/statistik-uppfoljning/smittsamma-sjukdomar/veckorapporter-covid-19/2020/veckorapport-covid-19-v50-final.pdf (Table 4, Page 22)

2022, Mar. Evaluation of science advice during the COVID-19 pandemic in Sweden
Governmental emails which "speculated about the use of children to acquire herd immunity."
https://www.nature.com/articles/s41599-022-01097-5

2023 Jun. More than 70% of US household COVID spread started with a child, study suggests
A **study** published yesterday in *JAMA Network Open* suggests that 70.4% of nearly 850,000 US household COVID-19 transmissions originated with a child. -- Of all households transmissions, 70.4% began with a child, with the proportion fluctuating weekly between 36.9% and 87.5%. Pediatric transmissions reached a high of 68.4% the week of September 27, 2020, and fell to a low of 41.7% the week of December 27, 2020 (0.61 times less frequent). The next high was 82.0% the week of May 23, 2021, which stayed stable until June 27 (81.4%) and then declined to 62.5% by August 8 (0.77 times less frequent). Children aged 8 years and younger were more likely to be the source of transmission than those aged 9 to 17 (7.6% vs 5.8%). During most of the pandemic, the proportion of transmission from children was negatively correlated with new community COVID-19 cases.

https://www.cidrap.umn.edu/covid-19/more-70-us-household-covid-spread-started-child-study-suggests
https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2805468

2023, Mar. On the changing role of individuals in different age groups in propagating the Omicron epidemic waves in France
For some waves, Children have had the highest transmission. "For the Summer wave (June 27 – Aug. 21), the highest RR estimate belong to children aged 0-9y (RR=1.61 (1.13,2.30)) followed by children aged 10-19y (RR=1.59 (0.77,3.26)) and adults aged 20-29y (RR=1.42 (0.91,2.23))."
https://www.medrxiv.org/content/10.1101/2022.12.22.22283867v3

Spread Teachers

2020, Jul. How Many Teachers Are at Risk of Serious Illness If Infected with Coronavirus?
"We used a similar approach to look at teachers and other instructors, and we find that one in four teachers (24%, or about 1.47 million people), have a condition that puts them at higher risk of serious illness from coronavirus (Figure). "
https://www.kff.org/coronavirus-covid-19/issue-brief/how-many-teachers-are-at-risk-of-serious-illness-if-infected-with-coronavirus/

2023, April: Differential Risk of SARS-CoV-2 Infection by Occupation: Evidence from the Virus Watch prospective cohort study in England and Wales
Primary school teachers were 67% more likely to developed SARS-CoV-2 infections than other occupations. https://occup-med.biomedcentral.com/articles/10.1186/s12995-023-00371-9

Masks Prevent Spread

2021, Sept: Association Between K–12 School Mask Policies and School-Associated COVID-19 Outbreaks — Maricopa and Pima Counties, Arizona, July–August 2021
https://www.cdc.gov/mmwr/volumes/70/wr/mm7039e1.htm

2021, Sept: Pediatric COVID-19 Cases in Counties With and Without School Mask Requirements — United States, July 1–September 4, 2021
https://www.cdc.gov/mmwr/volumes/70/wr/mm7039e3.htm

2021, Sept: Studies Show More COVID-19 Cases in Areas Without School Masking Policies
https://www.cdc.gov/media/releases/2021/p0924-school-masking.html

2022, Nov: Mass Schools Found to have an increase in COVID-19 cases in Caregivers and Children once masking requirements were lifted.
Among school districts in the greater Boston area, the lifting of masking requirements was associated with an additional 44.9 Covid-19 cases per 1000 students and staff during the 15 weeks after the statewide masking policy was rescinded.
https://www.medrxiv.org/content/10.1101/2022.08.09.22278385v1
NEJM: https://www.nejm.org/doi/10.1056/NEJMoa2211029

Schools Can Remain Open

“And on Tuesday during testimony Dr. Fauci told Dr. Rand Paul that opening the schools would not be a good idea. Last week The Netherlands and Switzerland reopened their schools after finding children are not at risk from coronavirus and are not carriers of the virus.”

Household COVID-19 risk and in-person schooling
"when seven or more mitigation measures are reported, a significant relationship is no longer observed. " "Although in-person schooling is associated with household COVID-19 risk, this risk can likely be controlled with properly implemented school-based mitigation measures."
https://www.science.org/doi/10.1126/science.abh2939

2023, May. SARS-CoV-2 transmission with and without mask wearing or air cleaners in schools in Switzerland: A modeling study of epidemiological, environmental, and molecular data
"Molecular detection of airborne and human SARS-CoV-2 indicated sustained transmission in schools. Mask mandates were associated with greater reductions in aerosol concentrations than air cleaners and with lower transmission."
https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1004226

Flush with COVID-19 aid, schools steer funding to sports - By COLLIN BINKLEY and RYAN J. FOLEYOctober 6, 2021
"In September, the Pulaski County school board in Kentucky allocated $1 million in pandemic aid to resurface two outdoor tracks. Superintendent Patrick Richardson called it a health-and-wellness project that falls within the scope of the federal funding, saying it will “allow our students to be taken out for mask breaks, by class, in a safe environment."
https://apnews.com/article/coronavirus-pandemic-school-funding-sports-5b468b260ebd2593e53f03f9104d9bca