

How Mask Use Effects O2 and CO2

Are Children Suffering?

What Are The SYMPTOMS?

Original OSHA MANUAL for RESPIRATOR USE*

EFFECTS OF OXYGEN DEFICIENCY:

Increased breathing volume

Accelerated heartbeat

Impaired attention and thinking

Impaired Coordination

Rapid Fatigue that may cause permanent
heart damage

Intermittent respiration

NOT
Blood O₂
Levels



*Figure 5-13.
Typical single use dust respirators.*

The CDC's NIOSH* Blog:

Effects of Increased Concentrations of CO₂:

- Headache
- Increased pressure inside the skull
- Increased “work of breathing”, which is result of breathing through a filter medium
- Cardiovascular effects (e.g., diminished cardiac contractility, vasodilation of peripheral blood vessels)
- Reduced tolerance to lighter workloads
[aka. FATIGUE]

a.k.a. Hyercapnia

** The Occupational Safety and Health Act of 1970 established NIOSH as a research agency focused on the study of worker safety and health, and empowering employers and workers to create safe and healthy workplaces.*

3 Studies:
RESULTS

1



Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Corona children studies "Co-Ki": First results of a Germany-wide registry on mouth and nose covering (mask) in children

Results: By 26.10.2020 the registry had been used by 20,353 people. In this publication we report the results from the parents, who entered data on a total of 25,930 children. The average wearing time of t

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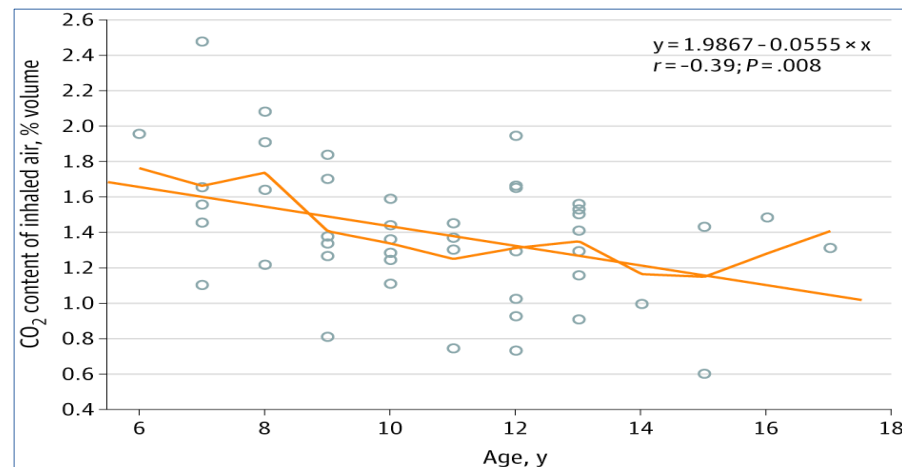
University of Witten/Herdecke

| | Total age group | Age group 0-6 years | Age group 7-12 years | Age group 13-18 years |
|--------------------------------|-------------------|---------------------|----------------------|-----------------------|
| Headaches | 13.811 (53.3%) | 960 (24.0%) | 7.863 (54.6%) | 4.988 (66.4%) |
| Concentration difficulties | 12.824 (49.5%) | 961 (24.0%) | 7.313 (50.8%) | 4.550 (60.5%) |
| Discomfort | 10.907 (42.1%) | 1.040 (26.0%) | 6.369 (44.2%) | 3.498 (46.5%) |
| Impairment in learning | 9.845 (38.0%) | 621 (15.5%) | 5.604 (38.9%) | 3.620 (48.2%) |
| drowsiness / tiredness | 9.460 (36.5%) | 729 (18.2%) | 5.163 (35.8%) | 3.568 (47.5%) |
| Tightness under the mask | 9.232 (35.6%) | 968 (24.2%) | 5.427 (37.7%) | 2.837 (37.7%) |
| Feeling of shortness of breath | 7.700 (29.7%) | 677 (16.9%) | 4.440 (30.8%) | 2.583 (34.4%) |
| Dizziness | 6.848 (26.4%) | 427 (10.7%) | 3.814 (26.5%) | 2.607 (34.7%) |

2

Experimental Assessment of Carbon Dioxide Content in Inhaled Air With or Without Face Masks in Healthy Children: A Randomized Clinical Trial

“The **Figure** shows that the value of the child with the lowest carbon dioxide level was 3-fold greater than the limit of 0.2 % by volume:



“This leads in turn to impairments attributable to **hypercapnia**.”

“We suggest that decision-makers weigh the hard evidence produced by these experimental measurements accordingly, which suggest that children should not be forced to wear face masks.”

3

This Study is Included in the
CDC's *Scientific Brief* as the
only **Evidence of Mask
Safety for Youth:**

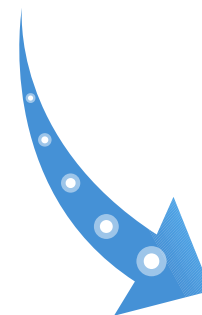
JAMA
Network | **Open**™

Original Investigation | Health Informatics

Assessment of Respiratory Function in Infants and Young Children Wearing Face Masks During the COVID-19 Pandemic

Riccardo Lubrano, MD, PhD; Silvia Bloise, MD; Alessia Testa, MD; Alessia Marcellino, MD; Anna Dilillo, MD, PhD; Saverio Mallardo, MD; Sara Isoldi, MD; Vanessa Martucci, MD; Maria Sanseviero, MD; Emanuela Del Giudice, MD, PhD; Concetta Malvaso, MD; Donatella Iorfida, MD; Flavia Ventriglia, MD, PhD

Let's See
the
DATA...



SaO2 = Blood Oxygen Saturation

DOES NOT CHANGE WITH MASK USE

Table 2. Respiratory Parameter Measures

| Parameter | Participants by group, median (IQR) | | | | | | | | |
|----------------------------|-------------------------------------|------------------------|------------------------|------------------------|----------------------|---------------------|----------------------|----------------------|------------------------|
| | Group A | | | | Group B | | | | After walking test |
| | At 15 min | At 30 min | At 45 min | At 60 min | At 15 min | At 30 min | At 45 min | At 60 min | |
| SaO ₂ , % | 98.0 (97.3-98.0) | 98.0 (98.0-99.0) | 98.0 (97.0-98.8) | 98.0 (97.5-98.0) | 98.0 (98.0-98.0) | 98.0 (97.0-98.0) | 98.0 (97.5-98.0-) | 98.0 (97.0-98.0) | 98.0 (97.0-98.0-) |
| PETCO ₂ , mm Hg | 33.0 (32.5-35.0) | 33.5 (32.3-34.8) | 33.0 (32.0-34.0) | 32.5 (32.0-34.0) | 37.0 (34.0-39.0) | 36.0 (34.0-38.0) | 36.0 (35.0-37.5) | 36.0 (34.0-38.0) | 36.0 (35.0-37.5) |
| PR, pulsations/min | 128.5 (113.5-140.0) | 128.5 (110.5-140.0) | 130.0 (118.5-140.0) | 130.0 (116.2-140.0) | 90.0 (84.0-102.5) | 91.0 (80.0-97.0) | 90.0 (85.0-98.5) | 99.0 (83.0-102.0) | 105.0 (100.0-115.0) |
| RR, breaths/min | 30.0 (28.0-31.5) | 31.0 (28.0-33.0) | 30.0 (26.5-34.0) | 30.0 (26.5-34.0) | 22.0 (19.0-24.5) | 22.0 (20.0-25.0) | 22.0 (20.0-25.0) | 24.0 (19.0-26.0) | 26.0 (24.0-29.0) |
| PI, % | 3.5 (2.6-4.5) | 2.9 (2.4-4.3) | 3.8 (2.6-4.5) | 3.8 (2.6-4.5) | 4.1 (3.0-5.5) | 4.1 (3.0-5.5) | 4.1 (2.6-6.2) | 4.3 (2.8-5.9) | 3.5 (2.7-5.0) |

**Blood O2 Levels =
Sao2 is NOT an
indicator of Oxygen
Deficiency**

Abbreviations: IQR, interquartile range; PETCO₂, partial pressure of end-tidal carbon dioxide; PR, pulse rate; RR, respiratory rate; SaO₂, oxygen saturation.

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PR = Pulse Rate

DROPS SIGNIFICANTLY WITH MASK USE

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Pulse Rate Decreased 25%!

Abbreviations: IQR, interquartile range; PETCO₂, partial pressure of end-tidal carbon dioxide; PI, perfusion index; PR, pulse rate; RR, respiratory rate; Sao₂, oxygen saturation.

CDC: CO2 Build-up symptoms include “**Cardiovascular effects**” such as slowing the heart’s ability to pump properly.

RR = Respiratory Rate or “Breaths per Minute”

DROPS SIGNIFICANTLY WITH MASK USE

**RR = Breathing Rate
Decreased by 1/3 After
15 minutes!**

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Abbreviations: IQR, interquartile range; PETCO₂, partial pressure of end-tidal carbon dioxide; PI, perfusion index; PR, pulse rate; RR, respiratory rate; Sao₂, oxygen saturation.

OSHA: O₂ Deprivation symptoms include “Intermittent respiration”

CDC: CO₂ Build-up symptoms include “Increased work of breathing”

PI = Pulse Strength, at Periphery

RAISES SIGNIFICANTLY WITH MASK USE

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PI = Blood flow to fingers and toes INCREASED by almost 1/3

Abbreviations: IQR, interquartile range; PETCO₂, partial pressure of end-tidal carbon dioxide; PI, perfusion index; PR, pulse rate; RR, respiratory rate; Sao₂, oxygen saturation.

CDC: “*Vasodilation of peripheral blood vessels*” is a symptom of dangerous CO₂ Build Up

This study, cited by the CDC as evidence masks are safe for kids, actually demonstrated that subjects were experiencing what OSHA and the CDC list as symptoms of Oxygen Deprivation and Dangerous CO2 Build Up.

**Is It Fair to Gamble
with Children's Health?**