

# **Do Face Masks Work? 8 Peer-Reviewed Studies**

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Strange though as it may seem, we feel nervous writing this report. Nervous that Google, Twitter, Facebook etc. might deem our site 'less trustworthy' or something similar. Nervous because we could very well become victims of internet censorship perpetrated by the Tech giants like Google et al for touching such a hot button issue with a hint of skepticism. We feel nervous because we fear imminent attacks by the so-called 'fact checkers'. Attacks on our good name because we refuse to tow the establishment line on this subject of acute public interest.

Indeed, we live in a strange time when open discussions on extremely important public health issues became taboo. Authoritarian censorship became our *New Normal*. While authorities around the world mandate face masks, we remain prohibited from discussing its pros and cons.

Therefore, in this article we refrain from interjecting any of our own 'non-expert' opinions into this debate. We avoid opposing the so-called experts on mainstream media with any of our own viewpoints.

Instead, we simply present 8 peer reviewed academic studies on surgical & cloth masks published on <u>PubMed.gov</u>; and let you the reader draw your own conclusions.

The studies are:

#### 1. PMID: 19216002

Use of surgical face masks to reduce the incidence of the common cold among health care workers in Japan: a randomized controlled trial

Objective: Health care workers outside surgical suites in Asia use surgical-type face masks commonly. Prevention of upper respiratory infection is one reason given, although evidence of effectiveness is lacking.

Results: Thirty-two health care workers completed the study, resulting in 2464 subject days. There were 2 colds during this time period, 1 in each group. Of the 8 symptoms recorded daily, subjects in the mask group were significantly more likely to experience headache during the study period (P < .05).

Conclusion: Face mask use in health care workers has not been demonstrated to provide benefit in terms of cold symptoms or getting colds. A larger study is needed to

definitively establish noninferiority of no mask use.

## 2. PMID: 20092668

Face masks to prevent transmission of influenza virus: a systematic review

Objective: Many national and international health agencies recommended the use of face masks during the 2009 influenza A (H1N1) pandemic. We reviewed the Englishlanguage literature on this subject to inform public health preparedness.

Results: There is some evidence to support the wearing of masks or respirators during illness to protect others, and public health emphasis on mask wearing during illness may help to reduce influenza virus transmission. There are fewer data to support the use of masks or respirators to prevent becoming infected.

Conclusion: Further studies in controlled settings and studies of natural infections in healthcare and community settings are required to better define the effectiveness of face masks and respirators in preventing influenza virus transmission.

### 3. PMID: 22188875

The use of masks and respirators to prevent transmission of influenza: a systematic review of the scientific evidence

Objective: There are limited data on the use of masks and respirators to reduhce transmission of influenza. A systematic review was undertaken to help inform pandemic influenza guidance in the United Kingdom.

Results: Six of eight randomised controlled trials found no significant differences between control and intervention groups (masks with or without hand hygiene; N95/P2 respirators).... Eight of nine retrospective observational studies found that mask and/or respirator use was independently associated with a reduced risk of severe acute respiratory syndrome (SARS)....however, these estimates were derived from the analyses of six SARS studies whose methodology was problematic.

Conclusion: None of the studies established a conclusive relationship between mask/respirator use and protection against influenza infection.... There is a limited evidence base to support the use of masks and/or respirators in healthcare or community settings.

### 4. PMID: <u>15340662</u>

The physiological impact of wearing an N95 mask during hemodialysis as a precaution against SARS in patients with end-stage renal disease

Objective: This study investigated the physiological impact of wearing an N95 mask during hemodialysis (HD) on patients with ESRD.

Results: Thirty nine patients (23 men; mean age, 57.2 years) were recruited for participation in the study. Seventy percent of the patients showed a reduction in partial pressure of oxygen (PaO2), and 19% developed various degrees of hypoxemia.

Conclusion: Wearing an N95 mask for 4 hours during HD significantly reduced PaO2 and increased respiratory adverse effects in ESRD patients.

### 5. PMID: <u>32406064</u>

Short-term skin reactions following use of N95 respirators and medical masks

Objective: To analyze the short-term effects of N95 respirators and medical masks, respectively, on skin physiological properties and to report adverse skin reactions caused by the protective equipment.

Results: Skin hydration, TEWL, and pH increased significantly with wearing the protective equipment. Erythema values increased from baseline. Sebum secretion increased both on the covered and uncovered skin with equipment-wearing.

Conclusions: This study demonstrates that skin biophysical characters change as a result of wearing a mask or respirator. N95 respirators were associated with more skin reactions than medical masks.

6. PMID: <u>32285928</u> (full Paper on <u>ViaMedica Journals</u>)

Cloth masks versus medical masks for COVID-19 protection

Objective: Global shortage of medical masks is a real and expanding problem. In turn, there is growing availability on the market of cloth masks. This is a study on the comparison of the efficacy of cloth masks to medical masks in the context of viral infections.

Results: Laboratory tests showed the penetration of particles through the cloth masks to be very high (97%) compared with medical masks (44%). A consequence of the above penetration is also a higher risk of critical care illness, the influenza- -like illness is more significant in the cloth mask group than in the medical mask. Moreover, the rate of confirmation of laboratory-confirmed viruses was also much higher for cloth masks than for medi- cal masks or groups that did not wear any mask.

Conclusion: Cloth masks don't protect as well as medical masks. Moreover, the physical properties of a cloth mask, reuse, the frequency and effectiveness of cleaning, and increased moisture retention, may potentially increase the infection risk, since, as it indicated by Osterholm et al. [7] the virus may survive on the surface of the face-masks. In this context self-contamination through repeated use and improper doffing is possible. Observations during SARS suggested double-masking and other practices increased the risk of infection because of moisture, liquid diffusion and pathogen retention [8].

### 7. PMID: 25903751

A cluster randomised trial of cloth masks compared with medical masks in healthcare workers

Objective: The aim of this study was to compare the efficacy of cloth masks to medical masks in hospital healthcare workers (HCWs). The null hypothesis is that there is no difference between medical masks and cloth masks.

Results: The rates of all infection outcomes were highest in the cloth mask arm, with the rate of ILI statistically significantly higher in the cloth mask arm.... Penetration of cloth masks by particles was almost 97% and medical masks 44%.

Conclusions: This study is the first RCT of cloth masks, and the results caution against the use of cloth masks. This is an important finding to inform occupational health and safety. Moisture retention, reuse of cloth masks and poor filtration may result in increased risk of infection.

#### 8. PMID: <u>32513410</u>

A study on infectivity of asymptomatic SARS-CoV-2 carriers

Objective: It is debatable whether asymptomatic COVID-19 virus carriers are contagious. We report here a case of the asymptomatic patient and present clinical characteristics of 455 contacts, which aims to study the infectivity of asymptomatic carriers.

Results: The median contact time for patients was four days and that for family members was five days.... The blood counts in most contacts were within a normal range. All CT images showed no sign of COVID-19 infection. No severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infections was detected in 455 contacts by nucleic acid test.

Conclusion: In summary, all the 455 contacts were excluded from SARS-CoV-2 infection and we conclude that the infectivity of some asymptomatic SARS-CoV-2 carriers might be weak.

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So, do masks work? Well, as shown in studies #1, #2 and #3 above, the claim 'masks prevent viral infections' remains far from settled. All three papers point to a lack of conclusive studies demonstrating the effectiveness of face masks in preventing viral infections. It's also important to note that studies #2 and #3 specifically examine all available peer reviewed papers on face masks efficacies; and they both unanimously state that no study established a conclusive relationship between mask/respirator use and protection against viral infections.

Moreover, as we can see from studies  $\frac{\#1}{4}$ ,  $\frac{\#4}{4}$  and  $\frac{\#5}{5}$ , negative and harmful side effects of mask usage remain undeniable. From headaches, skin reactions to hypoxemia, prolonged use of masks carries inescapable harmful consequences.

Furthermore, authorities around the world recommend we use cloth masks. On its face, considering the potential shortage of surgical and N95 masks, this recommendation seems reasonable. However, when we examine studies done specifically on cloth masks, we quickly realize not only do cloth masks offer almost no conclusive benefits against viral spreads (upto 97% particles penetration), usage of cloth masks may also introduce considerable risk of doing more harm than good. As demonstrated in studies <u>#6</u> and <u>#7</u>, using cloth masks can actually make it *more likely* that someone would catch viral infections.

Besides, the entire premise of mask mandates rests upon the notion of 'spread by

asymptomatic SARS-CoV-2 carriers'; that asymptomatic SARS-CoV-2 carriers can and do spread the virus. Yet, we can see from study <u>#8</u> that infectivity of asymptomatic SARS-CoV-2 carriers appears anything but certain. In fact, the study could not find a single infection occurring among 455 contacts of asymptomatic COVID19 patients.

So, do masks really work? Should we all wear them? Well, this article didn't set out to make any recommendations for or against using face masks. However, judging from the peerreviewed science documented above, no one in their right mind should make bold recommendations to use face masks; specially not cloth masks and definitely not for prolonged periods of time. And therefore, making them mandatory would simply seem insane to any sane person. Yet, all mainstream media outlets zealously recommend face masks and cloth masks with prophetic confidence. And due to surgical and N95 masks shortage, authorities, in essence, *mandate* cloth masks for millions around the world.

Even a large portion of the general public have been conditioned so effectively by the mainstream media and the medical authorities, that they often display a form of panic driven hysteria upon seeing someone not wearing a mask. Yet, anyone following legitimate published science can easily come to a very logical – and sensible – conclusion to not wear masks to prevent viral infections.

Therefore, instead of asking: *do masks work*? perhaps we should be asking: *should masks be mandatory*?

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