Masks: The Rest of the Science

While authorities recommend cloth masks, studies show up to 97% of cold and flu particles pass through them and in many cases frequent mask removal and replacement can cause more infections to the wearer. Here are 4 studies, including 1 from the CDC. The links take you to the actual study.

A study of 32 health workers for 2464 subject days -
https://pubmed.ncbi.nlm.nih.gov/19216002/

Conclusion – "**Face mask use in health care workers has not been demonstrated to provide benefit** in terms of cold symptoms of getting colds."

A review of 17 studies including 8 Randomized Control Trials to assess the effectiveness of masks to reduce influenza virus transmission -
https://pubmed.ncbi.nlm.nih.gov/22188875/

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."**

A Randomized Control Trial of 1607 health workers cloth versus medical masks -
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8016026/

Conclusion - The results caution against the use of cloth masks. Penetration of cloth masks by particles was almost 97% and medical masks 44%. Moisture retention, reuse of cloth masks and poor filtration may result in increased risk of infection. Further research is needed to inform the widespread use of cloth masks globally. However, as a precautionary measure, cloth masks should not be recommended for HCWs, particularly in high-risk situations, and guidelines need to be updated. **Observations during SARS suggested double-masking and other practices increased the risk of infection** because of moisture, liquid diffusion, and pathogen retention.

2015 CDC study of cloth masks versus medical masks in health workers –
https://wwwnc.cdc.gov/eid/article/26/10/20-0948_article

Conclusion – "This finding suggests that risk for infection was higher for those wearing cloth masks. The general public should be educated about mask use because **cloth masks may give users a false sense of protection** because of their limited protection against acquiring infection."

2020 CDC – Non-pharmaceutical Measures for Pandemic Influenza in Non-healthcare Settings
https://wwwnc.cdc.gov/eid/article/26/5/19-0994_article#tnF2

Conclusion – "In our systematic review, we identified 10 RCTs that reported estimates of the effectiveness of face masks in reducing laboratory-confirmed influenza virus infections in the community from literature published during 1946–July 27, 2018. In pooled analysis, **we found no significant reduction in influenza transmission with the use of face masks**