

# CORONAVIRUS OUTBREAK



## COVID-19 Guidance:

### Supporting Information for Use of Surgical/Cloth Masks

According to CDC Director Dr. Robert Redfield, up to 25 percent of individuals infected with COVID-19 may remain asymptomatic. Close contact with asymptomatic infected individuals and those who are pre-symptomatic (up to 48 hours before exhibiting symptoms such as fever, cough or shortness of breath) may be leading to the widespread transmissibility of the COVID-19 virus. Previously, the emphasis was on viral transmission through only symptomatic individuals.

- **Minimize the spread of disease from infected individuals to others.** A study by Liu and Zheng (2020) showed less secondary transmission of COVID-19 among public transit riders in China from a symptomatic, infected individual when that individual was wearing a facemask. This supports the merits of wearing facemasks to reduce human-to-human spread of coronavirus.
- **Reduce chances of contracting the disease.** A randomized clinical trial on influenza showed that facemask use and handwashing were effective in reducing the spread of the flu among household members (Cowling et al., 2009). This finding may apply to the coronavirus.  
  
N95s are the gold standard in personal protection against respiratory droplets. However, wearing some sort of facemask, even cloth ones, may offer greater protection than no barrier at all (Shakaya et al., 2017; van der Sande M et al, 2008).
- **Protect against asymptomatic or pre-symptomatic transmission.** An epidemiological study of seven clusters of COVID-19 cases in Singapore between January 23, 2020, and March 16, 2020, indicated significant spread of infection from a source patient to others in the community. The spread occurred one to three days before the individual developed symptoms (MMWR, 2020).  
  
Because it may take time to develop symptoms, an infected person could transmit the virus before the onset of symptoms. The main symptoms include shortness of breath, coughing and fever, but not everyone displays the same symptoms. Some may have milder symptoms that can be confused with other respiratory infections, while others never exhibit any noticeable symptoms. Asymptomatic and pre-symptomatic carriers of COVID-19 could unknowingly pass on the virus to others. Thus, facemask use may be a key mitigation strategy, along with other established strategies, including hand hygiene, increased disinfection practices and social distancing.
- **Preserve the supply of N95 respirators.** There is an alarming shortage of N95s around the world. The Department of Health and Human Services (DHHS) has acknowledged that the Strategic National Stockpile is dangerously low (Washington Post, 2020). Therefore, it is imperative to reserve N95 use when caring for patients with known or highly suspected COVID-19. Use a surgical facemask for all other times.
- **Safeguard the well-being of vulnerable individuals.** Hospitalizations and intensive care unit admissions are considerably higher among adult patients with underlying medical conditions. Underlying conditions that may increase risk of more severe outcomes from COVID-19 infection include diabetes, cardiovascular disease and chronic respiratory disease. By wearing a surgical mask in the fire station and when off duty, IAFF members can do their part to keep at-risk colleagues, loved ones and community members safe and COVID-19 free.
- **Cloth Masks: Why Wear Them and How to Make Them.** It is important to remember that facemasks are not worn to prevent exposure, but rather to limit the transmission if an individual is asymptomatic. The most effective means to prevent exposures to COVID-19 is through elimination — physically removing the hazard (COVID-19) — and this means wearing a facemask. Surgical mask supplies may be low, but the CDC has provided a [video](#) on how to make a cloth mask. [See more information](#) on the importance of facemasks.

#### References

1. Cowling, B. J., Chan, K.-H., Fang, V. J., Cheng, C. K. Y., Fung, R. O. P., Wai, W., ... Leung, G. M. (2009, October 6). Facemasks and hand hygiene to prevent influenza transmission in households: a cluster randomized trial. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/19652172>
2. National Academies of Sciences letter to the White House. <https://www.iaff.org/wp-content/uploads/NAS-Response-Letter-to-WH-Request.pdf>
3. Feng, S., Shen, C., Xia, N., Song, W., Fan, M., & Cowling, B. J. (2020). Rational use of face masks in the COVID-19 pandemic. The Lancet Respiratory Medicine. doi: 10.1016/s2213-2600(20)30134-x
4. Liu, X., & Zhang, S. (2020, March 29). COVID-19 : Face Masks and Human-to-human Transmission. Retrieved from <https://onlinelibrary.wiley.com/doi/pdf/10.1111/irv.12740>
5. Miroff, N. (2020, April 1). Protective gear in national stockpile is nearly depleted, DHS officials say. Retrieved from [https://www.washingtonpost.com/national/coronavirus-protective-gear-stockpile-depleted/2020/04/01/44d6592a-741f-11ea-ae50-7148009252e3\\_story.html](https://www.washingtonpost.com/national/coronavirus-protective-gear-stockpile-depleted/2020/04/01/44d6592a-741f-11ea-ae50-7148009252e3_story.html)
6. Preliminary Estimates of the Prevalence of Selected Underlying Health Conditions Among Patients with Coronavirus Disease 2019 - United States, February 12–March 28, 2020. (2020, March 31). Retrieved from <https://www.cdc.gov/mmwr/volumes/69/wr/mm6913e2.htm>
7. Presymptomatic Transmission of SARS-CoV-2 - Singapore, January 23–March 16, 2020. (2020, April 1). Retrieved from [https://www.cdc.gov/mmwr/volumes/69/wr/mm6914e1.htm?s\\_cid=mm6914e1\\_w](https://www.cdc.gov/mmwr/volumes/69/wr/mm6914e1.htm?s_cid=mm6914e1_w)
8. Shakya, K. M., Noyes, A., Kallin, R., & Peltier, R. E. (2016). Evaluating the efficacy of cloth facemasks in reducing particulate matter exposure. Journal of Exposure Science & Environmental Epidemiology, 27(3), 352–357. doi: 10.1038/jes.2016.42