

Some of the studies below recommend the use of masks after stating there is no strong evidence supporting their use. When the recommendation of a paper conflicts with the evidence stated, we provide the statement about the evidence.

[CDC Emerging Infectious Diseases Journal, May 2020](#)

“Although mechanistic studies support the potential effect of hand hygiene or face masks, evidence from 14 randomized controlled trials of these measures did not support a substantial effect on transmission of laboratory-confirmed influenza.”

[WHO: Advice on the use of masks in the context of COVID-19, 5 June 2020](#)

“Many countries have recommended the use of fabric masks/face coverings for the general public. At the present time, the widespread use of masks by healthy people in the community setting is not yet supported by high quality or direct scientific evidence and there are potential benefits and harms to consider.”

[WHO: Advice on the use of masks for children in the community in the context of COVID-19, 21 August 2020](#)

“Evidence on the benefits and harms of children wearing masks to mitigate transmission of COVID-19 and other coronaviruses is limited.”

[CIDRAP Commentary: Masks-for-all for COVID-19 not based on sound data, updated July 16, 2020](#)

Cloth masks

“Kellogg, seeking a reason for the failure of cloth masks required for the public in stopping the 1918 influenza pandemic, found that the number of cloth layers needed to achieve acceptable efficiency made them difficult to breathe through and caused leakage around the mask. We found no well-designed studies of cloth masks as source control in household or healthcare settings.

“In sum, given the paucity of information about their performance as source control in real-world settings, along with the extremely low efficiency of cloth masks as filters and their poor fit, there is no evidence to support their use by the public or healthcare workers to control the emission of particles from the wearer.”

“We have reviewed the many modeling studies that purport to demonstrate that cloth masks or face coverings have the potential for flattening the curve or significantly decrease the number of cases. These studies fail to recognize several important facts:

- The filter performance of a cloth material does not directly translate or represent its performance on an individual, because it neglects the understanding of fit.
- Cloth masks or coverings come in a variety of shapes, sizes, and materials and are not made according to any standards.
- Transmission is not simply a function of short random interactions between individuals, but rather a function of particle concentration in the air and the time exposed to that concentration.
- A cloth mask or face covering does very little to prevent the emission or inhalation of small particles. As discussed in an earlier CIDRAP [commentary](#) and more recently by Morawska and Milton (2020) in an open letter to WHO signed by 239 scientists, inhalation of small infectious particles is not only biologically plausible, but the epidemiology supports it as an important mode of transmission for SARS-CoV-2, the virus that causes COVID-19.”

“We are very concerned about messaging that suggests cloth masks or face coverings can replace physical distancing. We also worry that the public doesn’t understand the limitations of cloth masks and face coverings when we observe how many people wear

their mask under their nose or even under their mouth, remove their masks when talking to someone nearby, or fail to practice physical distancing when wearing a mask.”

Surgical masks

“In sum, wearing surgical masks in households appears to have very little impact on transmission of respiratory disease. One possible reason may be that masks are not likely worn continuously in households. These data suggest that surgical masks worn by the public will have no or very low impact on disease transmission during a pandemic.

“There is no evidence that surgical masks worn by healthcare workers are effective at limiting the emission of small particles or in preventing contamination of wounds during surgery.

“There is moderate evidence that surgical masks worn by patients in healthcare settings can lower the emission of large particles generated during coughing and limited evidence that small particle emission may also be reduced.”

[Face masks to prevent transmission of influenza virus: A systematic review, January 2010](#)

None of the studies reviewed showed a benefit from wearing a mask, in either healthcare workers or community members in households. See Tables 1 and 2.

[Masks for Prevention of Respiratory Virus Infections, Including SARS-CoV-2, in Health Care and Community Settings: A Living Rapid Review](#)

“Randomized trials in community settings found possibly no difference between N95 versus surgical masks and probably no difference between surgical versus no mask in risk for influenza or influenza-like illness”

“Eight trials (6510 participants), including the trial described above, evaluated use of surgical masks within households with an influenza or influenza-like illness index case (child or adult) ([24](#), [28–30](#), [37](#), [41](#), [48](#), [49](#)). Compared with no masks, surgical masks were not associated with decreased risk for clinical respiratory illness, influenza-like illness, or laboratory-confirmed viral illness in household contacts when masks were worn by household contacts”

“Two trials found no differences between surgical masks plus handwashing versus handwashing alone in risk for infections in household contacts of index cases ([30](#), [48](#)).”

“Two trials (2475 participants) of students living in university residence halls without specific contacts with cases also found no significant differences between a surgical mask versus no mask and risk for influenza-like illness ([19](#), [20](#)). Two trials (7851 participants) found that surgical masks, compared with no masks, were not associated with decreased risk for infections in Hajj pilgrims with or without an infected index case within the same tent ([21](#), [23](#)).”

“In community settings, one RCT found no difference between N95 or equivalent respirators versus surgical masks in risk for noncoronavirus respiratory illness ([37](#)). The RCTs in community settings, typically conducted during influenza seasons, also did not indicate effectiveness of mask use versus no mask use for reducing viral respiratory infection risk.”