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Canadian Thoracic Society recommendations regarding the use of face masks by the public during the SARS-CoV-2 (COVID-19) pandemic

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Summary

- We support the Public Health Agency of Canada's recommendation of wearing a non-medical face mask in the community for periods of time when it is not possible to consistently maintain a 2-meter physical distance from others.
- We recommend that all individuals with underlying lung disease follow this recommendation to reduce the risk of spreading the SARS-CoV-2 virus.
- If individuals cannot tolerate wearing this added protection, we recommend that they avoid or minimize circumstances in which physical distancing is not possible.
- There is NO evidence that wearing a face mask will exacerbate (cause a 'flare up' of) an underlying lung condition.
- We recommend that anyone who uses a face mask familiarize themselves with how to properly put on and take off this equipment.
- It is important that if one is wearing a mask, it should be comfortable and not require frequent adjustment to avoid contaminating the wearer's hands.
- We remind everyone that wearing a face mask alone will not prevent the spread of COVID-19 and that use of face masks should complement other recommended public health measures, including frequent hand washing or use of alcohol-based hand sanitizers, and physical distancing.
- The COVID-19 pandemic is a rapidly evolving situation and recommendations may change as the science informs us. We recommend to routinely visit our COVID-19 website for updates at <https://cts-sct.ca/covid-19>.

Background

As Canada begins to relax the measures instituted to limit the spread of the SARS-CoV-2 virus, recommendations by the Public Health Agency of Canada and local public health authorities are simultaneously evolving to assist in this process.

The Public Health Agency of Canada has recommended the use of non-medical/facial coverings in the community when physical distancing from others is not possible.¹ This recommendation includes individuals with any underlying lung disease. This new recommendation is primarily designed to help reduce the asymptomatic or pre-symptomatic spread of the virus. Asymptomatic and pre-symptomatic spread of the SARS-CoV-2 virus has been previously reported²⁻⁵ and is believed to be an important mode of viral transmission. As we transition into a more interactive and open society, the risk of asymptomatic spread increases. The use of facial coverings could reduce the risk of viral transmission, as has been suggested with other viruses.⁶⁻⁸ We recommend that people also refer to their local health authorities' suggestions on wearing masks as this may vary depending on local community transmission rates.

It is important to highlight that the recommendation is for the use of non-medical/facial coverings, as medical grade masks should be conserved for use in acute care settings where there is the highest risk of potential transmission. It is also important to remind the public that although there is evidence that medical grade surgical face masks reduce viral spread,⁹ non-medical/facial coverings may not confer the same level of protection.¹⁰ However, face masks are more effective when combined with careful hand hygiene.^{11,12} Hence, whether a face mask is used or not, all citizens should continue to practice proper hand hygiene in the form of frequent hand washing or use of alcohol-based hand sanitizers and follow public health recommendations regarding physical distancing.

Anyone who chooses to use a face mask should use one that is comfortable and does not require frequent adjustments. Also, one must familiarize themselves with the proper process of putting on ("donning") and taking off ("doffing") the mask. We ask that you refer to the Public Health Agency of Canada's website¹³ for instructions on this and links to a tutorial video and resources available on the Canadian Thoracic Society (CTS) website (<https://cts-sct.ca/>)

covid-19). These steps are crucial in order to reduce one's risk of accidental contamination leading to virus exposure.

Breathing through a mask takes more effort, and this may vary depending on whether one is using a commercially produced mask, a mask made at home, or a simple cloth covering. For those with underlying lung disease, the effort required may cause a feeling of shortness of breath while wearing the mask. In such situations, we recommend that individuals remove the face mask, and if symptoms do not immediately settle, they should follow their existing strategy for relief of acute symptoms. These symptoms should be self-limited and respond to immediate interventions. **There is no evidence that wearing a mask/facial covering will lead to prolonged symptoms or a flare up ("exacerbation") of an underlying lung condition.** If an individual experiences challenges with wearing a mask, we recommend that they speak with their health care provider to develop strategies in order to be able to use this added form of protection. However, if wearing a face mask is not possible despite best efforts, we recommend that individuals instead avoid or minimize circumstances where physical distancing is not possible.

We will continue to update these recommendations as scientific evidence and government policy evolve.¹⁴ Health care professionals are advised to periodically visit the CTS website (<https://cts-sct.ca/covid-19>) for additional resources as well as further updates on COVID-19 and lung diseases.

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References

- Public Health Agency of Canada. Government of Canada. Council of Chief Medical Officers of Health Communication: Use of Non-Medical Masks (or Facial Coverings) by the Public. Posted on April 7, 2020. <https://www.canada.ca/en/public-health/news/2020/04/ccmoh-communication-use-of-non-medical-masks-or-facial-coverings-by-the-public.html>. Accessed on May 25, 2020.
- Rothe C, Schunk M, Sothmann P, et al. Transmission of 2019-nCoV Infection from an Asymptomatic Contact in Germany. *N Engl J Med*. 2020;382(10):970–971. doi:10.1056/NEJMc2001468.
- Bai Y, Yao L, Wei T, et al. Presumed Asymptomatic Carrier Transmission of COVID-19. *JAMA*. 2020;323(14):1406–1407. doi:10.1001/jama.2020.2565.
- Gao Z, Xu Y, Sun C, et al. A Systematic Review of Asymptomatic Infections with COVID-19. *J Microbiol Immunol Infect*. 2020; doi:10.1016/j.jmii.2020.05.001.
- Wei WE, Li Z, Chiew CJ, Yong SE, et al. Presymptomatic Transmission of SARS-CoV-2 - Singapore, January 23-March 16, 2020. *MMWR Morb Mortal Wkly Rep*. 2020;69(14):411–415. doi:10.15585/mmwr.mm6914e1.
- Jefferson T, Del Mar CB, Dooley L, et al. Physical interventions to interrupt or reduce the spread of respiratory viruses. *Cochrane Database Syst Rev*. 2011;(7):1465–1858. doi:10.1002/14651858.CD006207.pub4.
- van der Sande M, Teunis P, Sabel R. Professional and Home-Made Face Masks Reduce Exposure to Respiratory Infections among the General Population. *PLoS One*. 2008;3(7):e2618doi:10.1371/journal.pone.0002618.
- Prather KA, Wang CC, Schooley RT. Reducing transmission of SARS-CoV-2. *Science*. 2020;eabc6197. doi:10.1126/science.abc6197.
- Leung NHL, Chu DKW, Shiu EYC, et al. Respiratory virus shedding in exhaled breath and efficacy of face masks. *Nat Med*. 2020;26(5):676–680. doi:10.1038/s41591-020-0843-2.
- Davies A, Thompson K-A, Giri K, et al. Testing the Efficacy of Homemade Masks: Would They Protect in an Influenza Pandemic? *Disaster Med Public Health Prep*. 2013;7(4):413–418. doi:10.1017/dmp.2013.43.
- Aiello AE, Murray GF, Perez V, et al. Mask use, hand hygiene, and seasonal influenza-like illness among young adults: a randomized intervention trial. *J Infect Dis*. 2010;201(4):491–498. doi:10.1086/650396.
- Suess T, Remschmidt C, Schink SB, et al. The role of facemasks and hand hygiene in the prevention of influenza transmission in households: results from a cluster randomised trial; Berlin, Germany, 2009-2011. *BMC Infect Dis*. 2012;12:26doi:10.1186/1471-2334-12-26.
- Public Health Agency of Canada. Government of Canada. Non-medical masks and face coverings. Posting modified on May 25, 2020. <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/prevention-risks/how-put-remove-clean-non-medical-masks-face-coverings.html>. Accessed on May 25, 2020.
- World Health Organization. Advice on the use of masks in the context of COVID-19 - Interim Guidance. Posted on April 6, 2020. https://www.who.int/emergencies/diseases/novel-Coronavirus-2019/advice-for-public/when-and-how-to-use-masks?gclid=Cj0KCQ-jwiYL3BRDVARIsAF9E4GfHwFnd3D1WmqIoRO98PROVsnUZ_iTbwewjCNft1gl09J3Hxx96Ut0aAlyjEALw_wcB. Accessed on June 5, 2020.