

COVID-19: It's freezing outside, but you still need to open your windows

February 11 2021, by Ian Colbeck



Credit: AI-generated image ([disclaimer](#))

In the depths of February, it's not in many of our natures to open the window to let in the cold air of a northern hemisphere winter.

But with the coronavirus pandemic in full swing and new variants on the rise, good [ventilation](#) is an important method to stop the spread of

infection in indoor environments. [Research](#) has shown that poorly ventilated indoor areas are among the highest risk venues for spreading the disease.

And although we have known about the importance of ventilation in the fight against COVID-19 for a while, the messaging has not truly taken hold in the UK.

In April 2020, a document presented to the Scientific Advisory Group for Emergencies (Sage) on [environmental dispersion](#) noted: "The primary route to controlling exposure to fine aerosol particles in an indoor environment is ventilation."

But in that and [related documents](#), guidance was aimed at workplaces and building management systems rather than the general public. With the country now in another lockdown and many people working from home, it's individuals who need to be convinced to open their windows to prevent COVID-19.

The case for ventilation

Over the summer, government guidance on ventilation more geared towards [keeping cool](#) rather than reducing exposure to coronavirus, although it was still a topic of [discussion for Sage](#).

In [readiness for winter](#), when people spend longer indoors and ventilation rates are lower, Sage concluded: "Clear messaging and guidelines will be needed to improve understanding on the reasons why good ventilation is important and how to effectively operate ventilation systems or achieve good natural ventilation."

In November, the government launched [a film](#) to show the importance of ventilation as a means to reduce the spread of coronavirus.

The campaign recommended that people open windows fully for short, sharp bursts of ten to 15 minutes regularly throughout the day, or leave them open a small amount continuously. Doing this can reduce the risk of infection from particles by more than 70%.

At the end of last year, a few [local authorities](#) began to promote "hands, face, space, ventilate and isolate" while others tried "[hands, space, face, replace](#)" with "replace" referring to changing out stuffy indoor air by opening a window.

Despite these efforts, a [recent survey](#) found that just 5% of 2,331 people polled had heard about the need to avoid unventilated indoor places. This is perhaps not surprising, given the [NHS advice](#) on COVID did not list opening windows as a means to reduce exposure until January 2021, while the December [Sage advice](#) on reducing the risk of [coronavirus](#) transmission in the home only mentions ensuring that indoor spaces get as much fresh air as possible.

Compare all this with Japan, whose government posted advice in March 2020 on avoiding the "[three c's](#)"—closed spaces, close-contact, and crowds. People were recommended to open windows at home for a few minutes twice every hour.

A history of open windows

The importance of opening windows for health reasons is nothing new.

In the second half of the 18th century, there was growing concern over the air in confined spaces causing disease. In his 1769 book, Domestic Medicine and the Family Physician, Scottish doctor and author [William Buchan](#) noted that for many poor people, the "low dirty habitations are the very lurking-places of bad air and contagious disease."

In 1842, a contributor to the [Report on the Sanitary Condition of the Labouring Population of Great Britain](#) reported: "When great numbers are crowded together in a small confined space, and ventilation is neglected, constitutes ... a very frequent source from whence fever originates. "

Two years later, obstetrician [James Simpson](#) recommended in his lectures to the working classes of Edinburgh that people open their windows to purify "the foul and fetid air."

In her 1859 book, Notes on Nursing, Florence Nightingale highlighted the importance of open windows in fighting disease. "Cleanliness and fresh air from open windows with unremitting attention to the patient are the only defense a true nurse either asks or need," [she wrote](#).

Such advice was echoed in journalist Mrs Beeton's [Book of Household Management](#) in 1861. Beeton argued who believed that certain illnesses could become more potent if they were concentrated in confined, poorly ventilated spaces and championed the fireplace as a means of providing much-needed ventilation in the home environment.



Credit: AI-generated image ([disclaimer](#))

In hospitals, the use of open windows to enhance ventilation was used on casualties during the first world war and during the 1918–19 influenza pandemic, when patients' beds were even [placed outside](#).

A faith in open windows continued in the early 20th century until [hospital designs](#) began to change and the idea that [pathogens from outside](#) might enter and gain a foothold inside.

But to this day, the [World Health Organization](#) still recommends natural ventilation as one way to limit transmission of tuberculosis.

Forgetting the lessons of the past

Do we still follow the practice of opening windows advocated by our Victorian forbears? Walk along virtually any UK street in winter and you would be lucky to see any windows ajar.

In Germany, on the other hand, regular ventilation or [stößlüften](#), which involves opening a window in the morning and evening for at least five minutes to allow the circulation of air, is a common occurrence.

There is also querlüften or cross-ventilation, which involves opening all windows. Many rental agreements in Germany often make stößlüften a requirement through a legally binding clause, mainly to protect against mold and unpleasant smells.

In cold weather, opening a window can always be a cause of tension. But that's not new either—in 1776 [John Adams and Benjamin Franklin](#) lodged together in a small room with only one window and argued over opening the [window](#).

Adams didn't want to catch an illness from the cold night air. Franklin answered that the air in their room was even worse. In the age of COVID, it's better to be a Franklin than an Adams.

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