

# 239 Experts With One Big Claim: The Coronavirus Is Airborne

The W.H.O. has resisted mounting evidence that viral particles floating indoors are infectious, some scientists say. The agency maintains the research is still inconclusive.

By [Apoorva Mandavilli](#) Updated July 7, 2020

"I do get frustrated about the issues of airflow and sizing of particles, absolutely," said Mary-Louise McLaws, a committee member and epidemiologist at the University of New South Wales in Sydney.

"If we started revisiting airflow, we would have to be prepared to change a lot of what we do," she said. "I think it's a good idea, a very good idea, but it will cause an enormous shudder through the infection control society."

In early April, a group of 36 experts on air quality and aerosols urged the W.H.O. to consider the growing evidence on airborne transmission of the coronavirus. The agency

responded promptly, calling Lidia Morawska, the group's leader and a longtime W.H.O. consultant, to arrange a meeting.

But the discussion was dominated by a few experts who are staunch supporters of handwashing and felt it must be emphasized over aerosols, according to some participants, and the committee's advice remained unchanged.

Dr. Morawska and others pointed to [several incidents](#) that indicate [airborne transmission](#) of the virus, particularly in poorly ventilated and crowded indoor spaces. They said the W.H.O. was making an artificial distinction between tiny aerosols and larger droplets, even though infected people produce both.

"We've known since 1946 that coughing and talking generate aerosols," said Linsey Marr, an expert in airborne transmission of viruses at Virginia Tech.

Scientists have not been able to grow the coronavirus from aerosols in the lab. But that doesn't mean aerosols are not infective, Dr. Marr said: Most of the [samples in those experiments have come from hospital rooms](#) with good air flow that would dilute viral levels.

"At the country level, a lot of W.H.O. technical staff are scratching their heads," said a consultant at a regional

office in Southeast Asia, who did not wish to be identified because he was worried about losing his contract. "This is not giving us credibility."

The consultant recalled that the W.H.O. staff members in his country were the only ones to go without masks after the government there endorsed them.

Many experts said the W.H.O. should embrace what some called a "precautionary principle" and others called "needs and values" — the idea that even without definitive evidence, the agency should assume the worst of the virus, apply common sense and recommend the best protection possible.

## [The Coronavirus Outbreak >](#)

### **Frequently Asked Questions**

Updated July 27, 2020

#### **Should I refinance my mortgage?**

[It could be a good idea](#), because mortgage rates have [never been lower](#). Refinancing requests have pushed mortgage applications to some of the highest levels since 2008, so be prepared to get in line. But defaults are also up, so if you're thinking about buying a home, be aware that some lenders have tightened their standards.

## What is school going to look like in September?

It is unlikely that many schools will return to a normal schedule this fall, requiring the grind of [online learning](#), [makeshift child care](#) and [stunted workdays](#) to continue. California's two largest public school districts — Los Angeles and San Diego — said on July 13, that [instruction will be remote-only in the fall](#), citing concerns that surging coronavirus infections in their areas pose too dire a risk for students and teachers. Together, the two districts enroll some 825,000 students. They are the largest in the country so far to abandon plans for even a partial physical return to classrooms when they reopen in August. For other districts, the solution won't be an all-or-nothing approach. [Many systems](#), including the nation's largest, New York City, are devising [hybrid plans](#) that involve spending some days in classrooms and other days online. There's no national policy on this yet, so check with your municipal school system regularly to see what is happening in your community.

## Is the coronavirus airborne?

The coronavirus [can stay aloft for hours in tiny droplets in stagnant air](#), infecting people as they inhale, mounting scientific evidence suggests. This risk is highest in crowded indoor spaces with poor ventilation, and may help explain super-spreading events reported in meatpacking plants, churches and restaurants. [It's unclear how often the virus is](#)

[spread](#) via these tiny droplets, or aerosols, compared with larger droplets that are expelled when a sick person coughs or sneezes, or transmitted through contact with contaminated surfaces, said Linsey Marr, an aerosol expert at Virginia Tech. Aerosols are released even when a person without symptoms exhales, talks or sings, according to Dr. Marr and more than 200 other experts, who [have outlined the evidence in an open letter to the World Health Organization](#).

## **What are the symptoms of coronavirus?**

Common symptoms [include fever, a dry cough, fatigue and difficulty breathing or shortness of breath](#). Some of these symptoms overlap with those of the flu, making detection difficult, but runny noses and stuffy sinuses are less common. [The C.D.C. has also](#) added chills, muscle pain, sore throat, headache and a new loss of the sense of taste or smell as symptoms to look out for. Most people fall ill five to seven days after exposure, but symptoms may appear in as few as two days or as many as 14 days.

## **Does asymptomatic transmission of Covid-19 happen?**

So far, the evidence seems to show it does. A widely cited [paper](#) published in April suggests that people are most infectious about two days before the onset of coronavirus symptoms and estimated that 44 percent of new infections

were a result of transmission from people who were not yet showing symptoms. Recently, a top expert at the World Health Organization stated that transmission of the coronavirus by people who did not have symptoms was "very rare," [but she later walked back that statement.](#)

"There is no incontrovertible proof that SARS-CoV-2 travels or is transmitted significantly by aerosols, but there is absolutely no evidence that it's not," said Dr. Trish Greenhalgh, a primary care doctor at the University of Oxford in Britain.

"So at the moment we have to make a decision in the face of uncertainty, and my goodness, it's going to be a disastrous decision if we get it wrong," she said. "So why not just mask up for a few weeks, just in case?"

After all, the W.H.O. seems willing to accept without much evidence the idea that the virus may be transmitted from surfaces, she and other researchers noted, even as other health agencies have stepped back emphasizing this route.

"I agree that fomite transmission is not directly demonstrated for this virus," Dr. Allegranzi, the W.H.O.'s technical lead on infection control, said, referring to objects that may be infectious. "But it is well known that other coronaviruses and respiratory viruses are transmitted, and demonstrated to be transmitted, by contact with fomite."

