

## **Educational Settings & COVID-19: Commonly Asked Questions**

### **Am I going to get COVID-19 by teaching in the classroom?**

Research has shown that teachers and staff do not have significantly increased risks compared to other occupations. In schools, the biggest risk is adult-to-adult spread when mitigation is not being followed, such as eating/meeting close together without masks. Reassuringly, CDC data (as of 1/13/21) shows that cases of COVID-19 in communities where K-12 schools offer in-person education (401.2 per 100,000) were similar to that in counties offering only virtual/online education (418.2 per 100,000).

### **What kind of mask should I wear?**

A snug fit, with a tight weave of material, with no external valve is best. N95s are not needed. Double masking can provide additional protection if desired. Face shields do not serve as a substitute for a face mask.

### **Should teachers wear goggles?**

Goggles are not necessary unless working in special circumstances.

### **I am always moving around the classroom. How will I know if I have had a close contact?**

The CDC defines “close contact” as being within 6 ft of someone who has COVID-19 for 15 minutes or more, and you should be notified by contact tracers if you fit that criteria. If you move from school to school, talk to your supervisor to find a way to keep track of close contacts. It may be reassuring to know that some parts of the country and some healthcare systems have removed quarantine requirements if everyone was masked, because they have seen that school/healthcare spread is very low.

### **A child in my classroom has COVID-19. Am I going to get it? Will my students?**

In schools that have been open, when a child is infected and proper mitigation is practiced (especially masking), the vast majority (if not all) of the children and adults in the classroom have remained unaffected. For example, in Ohio, researchers found that coronavirus cases in students quarantined due to exposure was about the same as those farther away or outside the classroom but in the same grade. For this reason, Ohio (along with OK, IN, UT, MI) is no longer quarantining students who were exposed to the coronavirus in the classroom as long as they were wearing masks.

### **My students have a hard time physically distancing. Are they more likely to get COVID-19?**

Fortunately children (especially <10) do not spread or catch COVID as well as adults. Encouragingly, a recent large-scale multicenter study with 4964 participants demonstrated that children (10 and under) had a 3-fold lower level of antibodies (0.6%) compared to adults (1.8%); this is one study of many that indicate young children do not spread the virus as effectively as adults. Proper masking is more important than perfect physical distancing. Hand hygiene is also beneficial.

### **My students love physical contact. How much should I prevent students from touching each other? What if a student hugs me?**

'Close contact' involves being in close proximity for an extended period of time, and risk can be minimized dramatically with mask-wearing and hand washing. Brief physical contact throughout the day is very unlikely to result in transmission.

### **Should I be touching desks, papers and supplies that other children have touched?**

Risk of getting COVID from touching objects is exceedingly rare, compared to what we initially thought. In fact, as of November 1, 2020, there have only been three cases reported worldwide on possible transmission from objects and surfaces, like doorknobs, countertops, keyboards, toys, etc. Even though the virus can sometimes be detected on materials, almost always the virus is not viable (alive) and therefore cannot cause COVID-19. As experts at Duke have stated, "coronaviruses can survive on surfaces; however, this does not equal transmission of infection." Furthermore, an individual would have to touch a largely infected surface and immediately afterwards touch their eyes, mouth or nose for transmission to even be possible. Since the virus can survive on skin for short periods of time, routine hand washing/ sanitizing and avoiding touching your face and/or mask should dramatically decrease risk of surface transmission.

### **Can kids use school playgrounds?**

The AAP states "outdoor playgrounds/natural play areas only need routine maintenance, and hand hygiene should be emphasized before and after use of these spaces." Wearing masks and washing hands after playground use is recommended. In a study in Massachusetts, COVID-19 was detectable on 29/348 (8.8%) of high-touch surfaces (crosswalk buttons, trash can lids and door handles); however, the amount present was below thresholds to cause disease, predicting the risk of infection from the high touch surface to be less than 0.0005%. While we are still learning about surface transmission, data to date indicate that playgrounds outdoors are low-risk if other mitigation is being followed.

### **I've heard some variants are 'much more contagious.' What does that mean for our safety in schools?**

Schools can stay safe using the same mitigation techniques (masking/etc). In reality, the change of infectiousness is not a dramatic increase to an individual when s/he is working in a mitigated environment.

### **What about kids spreading it to each other without anyone knowing?**

Studies to date indicate that this is NOT the case, as rates in schools are lower or equal to that in the community. It is encouraging that data from 191 countries from a 7-month period (2/10/2020-9/29/2020) showed no consistent association between school reopening status and COVID-19 infection rates.

### **My school has had a lot of cases listed on the dashboard. How do I know it's safe to be there?**

When kids come into the school with COVID-19, it is considered a "case." However, if the child does not give it to anyone else, there is no transmission. In fact, because schools are controlled environments in which mitigation is practiced, transmission is unlikely to occur in schools compared to other places in the community (bars, gyms, households). Additionally, we can more easily monitor transmission within schools. For instance, in North Carolina, a large study with over 100,000 students and staff during times of high community rates of COVID-19 reassuringly had only 32 within-school transmissions, in which the majority were related to absent face coverings. There were also no cases of child-to-adult transmission. If spread was as common in schools as it was in the community, one would anticipate 800+ secondary infections, however, there were only 32 cases. Also, a Wisconsin study found that the COVID-19 cases among students and staff members was 37% lower than in the surrounding county even in the setting of widespread community transmission (up to 40% test positivity), with very limited spread among children within their cohorts and no documented transmission to or from staff members.

### **What can I do outside of the school setting to help prevent cases of COVID-19?**

It is more likely adults will get COVID-19 from friends, family or the community as opposed to within an educational setting. For instance, a large study of over 38,000 in-person students and staff in South Carolina schools (over a two month period in the fall 2020) resulted in 500 positive cases, the majority of which were out-of-school transmission. Mitigation should be practiced out of school also.

### **Do I need to buy a HEPA filter for my classroom?**

This is not needed. The school should work with you if you have questions about air flow in your classroom as the CDC/VDH has much on air filtration/HVAC settings for buildings.

### **Should I get vaccinated? Will it help?**

The Moderna/Pfizer vaccines are 94-95% effective at preventing symptomatic laboratory-confirmed COVID-19 illness in people who receive two doses. Preliminary data suggests the vaccines afford some protection even after a single dose.

### **I live with an elderly parent. I'm scared to bring COVID-19 home to him/her.**

Studies to date have shown that teachers are not at higher risk of acquiring COVID-19 at work than individuals in most other occupations, such as healthcare and the service industry.

## **Extended version - Educational Settings & COVID-19: Commonly Asked Questions**

### **Am I going to get COVID-19 by teaching in the classroom?**

There has been a lot of confusing information in the media so it's important to focus on the data that shows how and where one is most likely to catch the virus. The good news is there is minimal transmission (spreading) of COVID-19 within schools if you adhere to mitigation. The best defense against COVID-19 spread in schools is wearing a mask, washing/sanitizing hands regularly, and maintaining physical distance to the extent possible. Other than staying at home all the time, there are very few zero risk activities with COVID-19. Research demonstrates that teachers and staff in schools do not have increased risks of COVID-19 compared to other occupations. High-risk occupations have shown that mitigation strategies can keep risk of infection low to workers. In schools, the biggest risk is adult-to-adult transmission when mitigation is not being followed, such as eating close together in break rooms or meeting without masks.

### **What kind of mask should I wear?**

A snug fit around the face and a tight weave of material or layers improve the quality of a mask. Masks with exhalation valves are not effective or recommended. Additionally, research shows that N95 masks are not needed in schools routinely (even medical offices do not use them for routine patient visits). In the school setting, it is recommended individuals wear cloth masks, preferably those with two layers of fabric.

### **Should teachers wear goggles?**

Widespread use of goggles by teachers is not necessary. Staff who clean and disinfect the school routinely should have access to proper PPE as needed to provide protection against the use of disinfectants. Eye protection or a face shield can be worn as an additional layer of protection, especially when kids cannot mask.

### **Should I get vaccinated? Will it help?**

Vaccination is a personal choice you should discuss with your doctor. The vaccine that has been offered to many school employees is 94-95% effective at preventing symptomatic laboratory-confirmed COVID-19 illness in people who receive two doses. Therefore, individuals who receive the vaccine are much less likely to experience COVID-19 with symptoms. There is also evidence that the vaccine may prevent serious illness even if you do get COVID-19. At this time it is expected that masking will be needed until we are closer to herd immunity.

### **I am always moving around the classroom. How will I know if I have had a close contact?**

The CDC defines "close contact" as being within 6 feet of someone who has COVID-19 for 15 minutes or more, but you should work with contact tracers to determine if/when you need to quarantine. If you have been within close contact of someone with COVID-19 for more than 15 minutes without masking (one or both of you), you should talk to your doctor, employer, or the health department. Current standards involve quarantining anyone within 6 feet of an infected person for more than 15 minutes, though it may be reassuring to know that some areas of the country have found that spread among masked close contacts is so low that they have removed

this requirement for schools and healthcare settings where masking mitigations are in place. If you work with students in different classrooms closely for more than 15 minutes at a time, try to keep a record of those individuals you work with to make contact tracing easier.

**A child in my classroom has COVID-19. Am I going to get it? Will my students?**

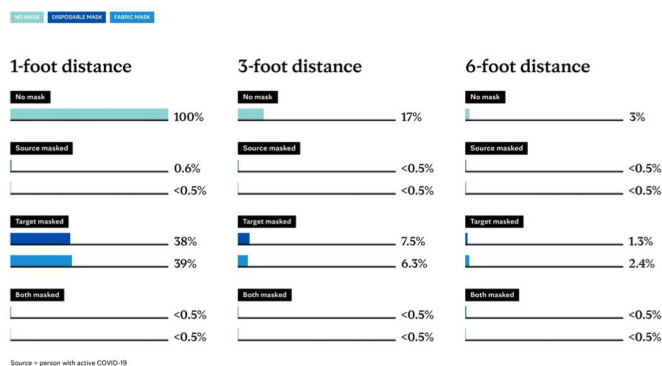
It is very unlikely. Many schools have been open throughout the pandemic. In those schools, when a child is infected and proper mitigation is practiced (especially masking), the vast majority (if not all) of the children and adults in the classroom remain unaffected. In fact, more recent studies have shown that there may not even be a difference in the infection rate of students who were in close contact with a pupil who had tested positive for the virus compared to those who were not exposed if the infected individual was masked. In summary, if you stay vigilant and wear your mask and do your best to maintain distancing as much as possible throughout the day, your risk of getting COVID-19 will be very low even if someone in your classroom ends up with the disease.

**There is a child in my classroom who does not wear their mask properly. What can I do?**

Positive reinforcement, modeling proper mitigation and engaging parent support can help in most cases. It’s important to remember that even if the child was not properly masked and comes down with COVID-19, the chance of others in the classroom (as long as the other individual was masked) getting the virus is still very low. It is reassuring that even in places (like Australia) where masking is not required for children under age 12, the rate of child to child (0.3%) and child to staff (1.0%) transmission is low.

The simulation particle study below illustrates the fact that masking is very effective and when both parties are masked, the amount of distance between two individuals may not be significant.

Exposure Risk Based on Masking and Distance



**My students have a hard time physically distancing. Are they more likely to get COVID-19?**

It is hard for children to get used to physical distancing. Continue to encourage and model good behaviors. In general, proper masking is more important than maintaining a perfect physical distance. An occasional lapse in distancing for short periods of time between children is hard to avoid and unlikely to be significant. During unstructured play times, when physical distancing is difficult for

younger children to remember, the most helpful thing you can do is make sure children are masked.

**Should I be touching desks, papers and supplies that other children have touched?**

At the beginning of the pandemic, little was known about surface transmission and many hours were spent sanitizing mail/packages or leaving them out ‘untouched’ for extended periods of time. We now know that getting the virus from touching a surface is exceedingly rare, and

practices of leaving objects sitting out have no clear data to support them. In fact, as of November 1, 2020, there have only been three cases reported worldwide on possible transmission from objects and surfaces, like doorknobs, countertops, keyboards, toys, etc. Even though the virus can sometimes be detected on materials, almost always the virus is not viable (alive) and therefore cannot cause COVID-19. As experts at Duke have stated, "coronaviruses can survive on surfaces; however, this does not equal transmission of infection." Furthermore, an individual would have to touch a largely infected surface and immediately afterwards touch their eyes, mouth or nose for transmission to even be possible. Since the virus can survive on skin for short periods of time, routine hand washing/ sanitizing and avoiding touching your face and/or mask should dramatically decrease risk of surface transmission. If shared objects are used, students should wash hands or use hand sanitizer before and after use.

### **What about kids using school playgrounds?**

Playgrounds provide a great opportunity for exercise and stress release for children. Congregation should be discouraged and cohorting (grouping of students) encouraged when possible so that different classes aren't mixing, especially during high community rates, to avoid excessive quarantine. The AAP states "outdoor playgrounds/natural play areas only need routine maintenance, and hand hygiene should be emphasized before and after use of these spaces." Wearing masks and washing hands before and after playground use is recommended. In a study in Massachusetts, COVID-19 was detectable on 29/348 (8.8%) of high-touch surfaces (crosswalk buttons, trash can lids and door handles); however, the amount present was below thresholds to cause disease, predicting the risk of infection from the high touch surface to be less than 0.0005%. We are still learning about surface transmission but data indicates playgrounds outdoors could give an opportunity for fresh air and should be low-risk if other mitigation is being followed.

### **I've heard some variants are 'much more contagious.' What does that mean for our safety in schools?**

You may have heard "40% increase" but it's important to look at actual numbers. In a large study in the United Kingdom looking at the new variant, the chance of a direct/close contact (of someone with the new strain) becoming a case of COVID-19 went from 11 to 14%. This is where 40% comes from. While this increased risk must be considered by those making decisions on a population level (e.g. to allow large gatherings in a community), for an individual, the chance of infectiousness is not a dramatic increase when they are working in mitigated educational settings. Additionally, the variants aren't known to increase risk of severe disease or death.

*"Wearing a cloth face covering, maintaining physical distance, hand washing and other precautions are effective protective measures against the new variant"*

-Yvonne A. Maldonado, M.D., FAAP, AAP Committee on Infectious Diseases Chair, 1/2021

We must continue to monitor variants of this virus but for now, everything we know shows mitigation works.

### **How do we know there's low transmission in schools? What about kids spreading it to each other without anyone knowing?**

The rapid spread that was frequently observed in group living facilities or high-density worksites has not been reported in education settings that are mitigating. The studies that

involve testing students and staff periodically, as well as those that compare school case rates to community case rates, have been reassuring that COVID-19 is not going through a school undetected. For instance, in North Carolina, a large study with over 100,000 students and staff during times of high community rates of COVID-19 reassuringly had only 32 within-school transmissions, in which the majority were related to absent face coverings. There were also no cases of child-to-adult transmission. If spread was as common in schools as it was in the community, one would anticipate 800+ secondary infections, however, there were only 32 cases. A Wisconsin study found that the COVID-19 incidence among students and staff members was lower than in the county overall and school transmission was extremely low, even in the setting of widespread community transmission, with very limited spread among children within their cohorts and no documented transmission to or from staff members.

### **Do I need to buy a HEPA filter for my classroom?**

There is conflicting information on the use of HEPA filters and ventilation in preventing the spread of COVID-19 when everyone is masking. Experts at Duke do not recommend interventions around indoor ventilation, such as HEPA filters, because there is no conclusive evidence showing it is helpful in preventing transmission. Experts at Harvard state “they may be helpful.” Air exchange through occasional opening of windows and/or doors makes common sense because fresh air can dilute particles that contain the virus and reduce the chance that someone would breathe in enough virus to become infected. The American Academy of Pediatrics (AAP) states, “the primary mode of transmission of SARS-CoV-2 appears to be by respiratory droplet transmission by people in close proximity.” Schools should make an effort to evaluate school-wide filtration systems as per CDC/VDH and teachers’ concerns should be addressed by HVAC experts.

### **I live with an elderly parent. I’m scared to bring COVID-19 home to him/her.**

This is understandable and we encourage discussing personal risks with school administration. However, studies to date have shown that teachers are not at higher risk of acquiring COVID-19 at work than individuals in most other occupations, such as healthcare and the service industry. Your best way to protect yourself and your loved ones is to wear a mask at all times (except when eating, when you should be 6 feet away from others since you are not masked) and adhere to hand hygiene.

### **Shouldn’t we be screening students or staff for COVID-19 symptoms?**

The CDC does not recommend universal symptom screening for K-12 schools. Parents or caregivers should watch children for signs of illness every school day and keep them home when ill. Many teachers are accustomed to working through minor illness; however staff should be honest when filling out symptom screener and not downplay symptoms they are having. If you don’t feel well or are experiencing symptoms you should stay home and be tested.

### **My students love physical contact. How much should I prevent students from touching each other? What if a student hugs me?**

It is hard to be told to be physically distant when your job is to bond and guide students, many of whom crave and even need physical contact. However, ‘close contact’ involves being in close

proximity for an extended period of time, and risk can be minimized dramatically with mask-wearing and hand washing. If kids high-five or hug, sanitizing hands should suffice. In daycares, where touching and closeness is unavoidable, transmission has remained low when masking is in place and children/staff are not ill. Brief physical contact throughout the day is very unlikely to result in transmission. Those working with students who cannot take care of bodily functions by themselves or have other unique needs should have PPE that is appropriate and this can be discussed with the school health team.

### **What can I do outside of the school setting to help prevent cases of COVID-19?**

Prioritize your own safety and others by practicing physical distancing, masking and avoiding community gatherings (gyms, bars, friends' homes) where spread of the virus is known to occur. It is more likely adults will get COVID-19 from friends, family or the community as opposed to within an educational setting.

### **My school has had a lot of cases listed on the dashboard. How do I know it's safe to be there?**

When people hear about 'cases' in school, it sounds scary. However, cases and transmission (spread) are two different things. When kids come into the school with COVID-19, it is considered a "case." However, if the child does not give it to anyone else, there is no transmission. When there are more cases in the community, there will be more cases that are present in school. It's important to understand that does not mean that schools are unsafe. In fact, because schools are controlled environments in which mitigation is practiced, transmission is unlikely to occur in schools compared to other places in the community (bars, gyms, households). Additionally, we can more easily monitor transmission within schools. The biggest problems that schools have had when there are many cases (but not spread) in schools is that staff and students are required to go on 'quarantine' to be monitored at home, leading to operational issues due to staffing shortages. School in fact is a mitigation measure.

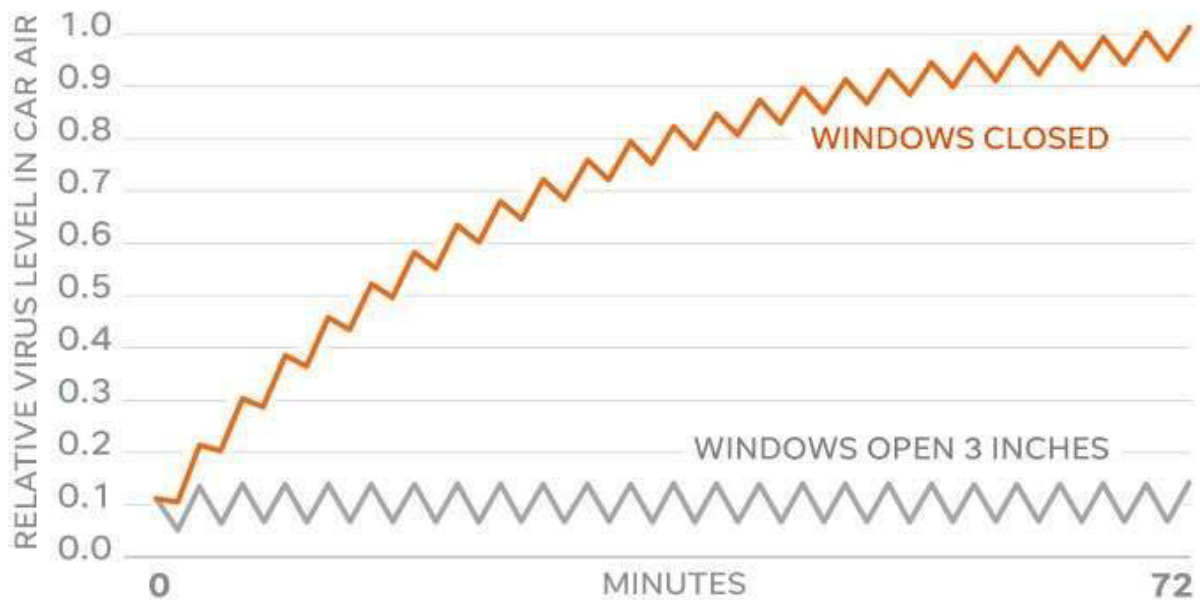
### **What about those of us who drive buses, work in custodial services, and the cafeteria?**

Cracking the windows even a little has been shown to help ventilation (see below graph for how this helps). Individuals in these fields should also wear masks with acknowledgement that drivers may need to remove their mask when 6 feet from students to drive safely (i.e. because of glasses fogging). If safety permits, drivers should replace their mask whenever the vehicle is stopped. Gloves and masks should always be worn by all individuals who are preparing or serving food. In summary, masking, avoiding coming to work when ill or exposed to COVID-19, and distancing is especially important for these individuals.



## Coronavirus accumulation in cars

Riding in a car for 72 minutes with an infected passenger, the SARS-CoV-2 virus, in fine aerosol particles, builds up if windows are closed. Keeping one window open just 3 inches can keep the accumulation at bay. The jagged nature of each curve corresponds to a cough every 3 minutes. Values are relative to the peak virus level when windows are closed.



SOURCE Joseph Allen, assistant professor and director of the Healthy Buildings program at the Harvard T.H. Chan School of Public Health, and co-author of “Healthy Buildings: How Indoor Spaces Drive Performance and Productivity;” Jack Spengler, professor at Harvard T.H. Chan School of Public Health and director of the JPB Environmental Health Fellows Program; Richard Corsi, dean of Portland State University’s Maseeh College of Engineering and Computer Science

### **One of my students was sent home. What are doctors doing in their offices before allowing kids to go back to school?**

Physicians should follow local or state guidance. Especially during times of high numbers of COVID cases in the community, physicians are testing children frequently and are not attributing runny noses to “just a cold.” Students should be instructed to not attend school if they have a COVID-19 test pending.

### **Useful definitions:**

Epidemiological link (Epi-link): When one infection connects to another infection, and may

indicate the source of transmission.

Community Epi-link: When infection occurs in the community (soccer game, party, holiday celebration). For example, his two classmates had a sleepover and both got infected - both cases would be classified as community Epi-link cases - even though they are in the same class.

School Epi-link: COVID-19 infection occurs in a school. For example, a student tests positive. Those identified as close contacts (classmates and teachers) are quarantined. If one of the quarantined people becomes sick, they are identified as a School Epi-linked case.

Outbreak: Outbreak is defined by two or more lab confirmed cases in a defined area of exposure (Epi-linked) - such as a school.

Quarantine: Recommended for those who have been exposed to a positive case. The goal is to stop further spread if they become symptomatic or contagious after exposure. Those under quarantine should stay home for 14 days from their last contact with the sick person and monitor their health for COVID-19 like symptoms.

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