Face Masks and Kids: Separating Fact From Fiction



The fight over whether schools should require face masks to help slow the pandemic shows no signs of dying down, but in the science community, there's little debate.

"Vaccination is number one, but masking is number two and is therefore the most effective way to reduce spread of COVID in settings where people [including children less than 12] cannot be vaccinated," said Dr. Mike Smith, a professor of pediatrics at Duke University School of Medicine. He co-authored the ABC Science Collaborative study published in Pediatrics

, which tracked the effectiveness of mitigation efforts in 100 school districts across North Carolina.

The American Academy of Pediatrics

has consistently supported universal masking for all vaccinated and unvaccinated children and adults in schools, even when the Centers for Disease Control and Prevention briefly suggested earlier in the spring that vaccinated individuals could go without masks.

Both groups now urge universal masking because it could be months before a vaccine is available for students under 12, and few schools have systems in place to monitor vaccinations for adults and the students on campus who are eligible for them. With no ability to create herd immunity and amid highly contagious new strains of the coronavirus, "universal masking is the best and most effective strategy to create consistent messages, expectations, enforcement, and compliance without the added burden of needing to monitor vaccination status," the AAP sa

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The AAP also says masks could help schools avoid outbreaks of other respiratory illnesses in what are expected to be especially bad cold and flu seasons.

Even so, policies on masking now vary significantly state by state and district to district.

"What we want is for teachers, staff, and students to be safe. If they want to go to in-person learning, [masking] has nothing to do with the politics. It has everything to do with public health and safety," said Dr. Tina Tan, a pediatric infectious disease doctor at Lurie Children's Hospital in Chicago and a coronavirus expert with the Infectious Disease Society of America.

"You know, one of the major impacts of virtual learning has been that kids have not actually had social contact with other individuals. But when you're talking about going back to school, you are at least having *some* social interaction so that socially and emotionally you're able to develop, so maybe you have to be able to wear a mask because that is the only way you're going to be able to do in-person school," she said.

But misinformation about masks for children abounds. Here's what experts have to say about some of the most common myths.

Myth: Children don't need masks in schools because they don't get COVID-19.

Fact: It's all relative. For most of the pandemic, children under 10 have had both lower rates of illness and fewer symptoms than older adolescents or adults. However, studies have found that even when asymptomatic, a child could contract the virus and carry as many or more infectious viral particles as an adult. One new study also finds toddlers and children ages 4 to 8 had higher odds of transmitting the coronavirus to others in their homes

than teenagers did, even though teenagers were more likely to get infected in the first place.

"Masking does offer some protection to the student wearing the mask, but masks are really effective because they reduce the likelihood of children with asymptomatic infection spreading disease," said Smith, from Duke University's medical school. "COVID is spread via respiratory droplets, which masking contains and keeps from spreading. This is why universal masking is a much more effective strategy and the safest option for the school setting."

Myth: Carbon dioxide and other toxins build up in masks during the day, causing breathing problems.

Fact: Oxygen and carbon dioxide molecules are significantly smaller than even the smallest viral particles and droplets captured by face masks. Both gases easily

pass through face masks and do not build up within them. Nor do masks build up mold (unless they're left wet and unwashed).

However, a mask that protects against viral particles must fit closely against the

face, and studies have found that over hours of wear, pressure against the face and humidity can cause minor headaches and skin irritation. Allowing students breaks to remove their masks in outdoor, physically distanced spaces every few hours or if they show signs of discomfort can help.

The type of masks children wear do matter. While they might be associated with greater protection from the coronavirus, school leaders should caution parents and teachers not to opt for the highest-grade medical masks for daily wear

"Not N-95," Tan said, "it makes it very difficult to breathe. It is almost impossible, if an N-95 mask is fitted correctly, to wear it all day." Internationally rated KN-95 masks may also have this issue. She said schools should suggest cloth or disposable two-ply or greater masks for school wear.

Myth: Young children aren't capable of keeping masks on all day.

Fact: "Younger children are capable of wearing masks and have adjusted very well," said Smith. In Smith's study on the effects of masking

in North Carolina schools, there

was 90 percent compliance in the two districts that kept track of adherence to the masking requirement.

If anything, younger children are better at masking than older ones, said Tan. "We've learned over the past year that even though people said younger kids would not be able to do it, it's really more the teenagers that forget to wear the mask or forget to put it back on after they've taken it off; it's not the younger kids," she said.

Researchers in France surveying parents and pediatricians about mask wearing

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were more accepting of wearing masks than 10-year-olds. The researchers said that could be because parents and teachers took more time to explain the reasons for mask requirements to younger students. It could also be because 10-year-olds are on the cusp of adolescence and starting to rebel more.

Overall, the researchers found that children in the study had become accustomed to wearing masks. Children, and parents, who did not understand the reasons for wearing face masks were less tolerant of it.

Key to getting children to wear their masks is setting an example, said Tan. "If you start modeling mask-wearing, we know that these younger children are able to keep the masks on," she said. "They don't pull them off."

Myth: Masks are too uncomfortable or distracting for students with sensory issues.

Fact: "Children who have severe underlying medical problems—if they are very developmentally delayed; if they have respiratory issues where they might be on a ventilator or they have a trach; or they have other serious medical problems— these individuals may not be able to keep a mask on or it might make it difficult for them to breathe," Tan said, "but for normal, healthy children, there's absolutely no medical indication that they can't wear a mask." That includes many children with sensory impairments, such as autism spectrum disorders. Mask-wearing can be challenging for students who have extreme sensitivity to touch and who avoid eye contact, or are having a more difficult time interpreting facial expressions generally. However, one international study found students with autism could be taught to cho

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correctly, even via a video conference, particularly if family helped model mask wearing at home. Separate

studies suggest students may tolerate soft cloth masks better, particularly if they are allowed to choose the masks themselves.

Myth: Children shouldn't wear masks because it hurts their social and emotional development.

Fact: There is no hard yes or no answer to this one.

There doesn't appear to be any research specifically on whether masking is detrimental to children's social and emotional development, said Justina Schlund, senior director of content and field learning at the Collaborative for Academic, Social, and Emotional Learning, or CASEL.

One claim that has come up repeatedly in debates over masks in schools is that when children can't see people's faces, they can't learn to read and respond to other's emotions.

While there's no doubt wearing a mask makes it harder to see how people are feeling, said Schlund, there are tradeoffs and workarounds that educators and parents should consider.

"There are lots of ways that students' social and emotional well-being is impacted in school and that includes their physical health and their families' physical health," she said. "There are a lot of challenges with learning through virtual platforms. And masks allow for more in-person learning and in-person relationship building."

It's a common misconception that SEL is only about learning emotions. That's only one part of social-emotional learning, which includes a lot of other skills such as how to build relationships and make responsible decisions, said Schlund.

There are also many ways to express emotions beyond using our mouths, she added. We do it through our eyes, our body language, and our tone of voice. Schlund said educators in situations where students and teachers are masking should use the opportunity to expand students' emotional vocabularies.

Myth: Students learning English (and their teachers) shouldn't wear masks because they can't learn language skills without being able to see mouth movements.

Fact: It's true that masks, if properly worn, cover the entire lower half of the face from the nose down, obscuring facial expressions

and the shape of teachers' students' mouths as they speak. Educators have found that students do have a

when masked.

However, it's not clear yet from research whether students learn phonics and other language skills better from a teacher in person with masks or via online lessons without masks, or a combination of the two.

Health and education researchers alike have been developing strategies to bolster communication for students while wearing masks

, such as slowing down speech,

using gestures to mimic what is being said, and providing detailed written explanations for daily lesson concepts to children and their families. Some companies have begun to manufacture face masks with clear panels over the mouth; however, face shields which are open at the sides and bottom do not

protect

against airborne viruses.