

Effective Communication in School Settings for Deaf/Hard of Hearing Students and Others: Face Masks and Face Shields

Centers for Disease Control (CDC) considerations released for schools¹ recommend the use of face masks along with social distancing and frequent handwashing to help protect students/staff and slow the spread of COVID-19. The CDC also recognizes that wearing cloth face coverings may not be possible in every situation, or for those who interact with people who are deaf/hard of hearing if these individuals use speechreading to assist comprehension. Schools must balance safety while making it possible for educators to provide access to curriculum, including peer communication, under IDEA and ADA/504 requirements for free and appropriate education (FAPE). Students spend 70-80% of their day in listening activities in a typical classroom, and communication with peers and teachers are critical to learning.²

Challenges:

Cloth masks are a barrier to access to speech, speech-reading and decoding facial expressions that individuals who are Deaf/hard of hearing rely on for effective communication. Any barrier to communication can cause reduced capacity for learning with a distorted speech signal and increases listening fatigue. Non-manual markers on the face, as a critical component of human expression in all languages and

“School officials have an obligation to avoid discrimination on the basis of disability under Title II and Section 504, while cooperating with public health authorities to ensure that students with disabilities have access to the school’s education program.”

Spangler, Au.D., Consideration of Face Shields as a Return to School Option

References:

1. CDC Considerations June 28, 2020
2. [Educational Audiology Association: Consideration of Face Shields as a Return to School Option](#)
3. [How do medical masks degrade speech reception?](#) May 2020 Hearing Review
4. [Phonak Audiology Blog: The Masking Dilemma](#): list of tips with rationale. June 2020
5. [Webinar](#): Understanding and Overcoming Listening Challenges When Schools Re-open, June 27, 2020
6. CDC: Guidance for Direct Service Providers, June 28, 2020
7. [A tricky combination: Face masks, hearing loss and hearing aids](#). May 4, 2020
8. [ASHA Applauds CDC for Updated Mask Recommendations, June 8, 2020](#)

*All face shields and transparent masks must be coupled with handwashing and proper use.

Transparent masks need anti-fogging treatments. Equipment should be sanitized regularly, including remote microphones

particularly with American Sign Language, are obstructed with any mask. Certainly, students who are English language learners, have social-emotional or developmental delays, attentional or visual challenges, deafblind, very young, or have additional concerns are adversely affected by the lack of visual, auditory and sometimes tactile access through typical cloth masks and distancing. Masking reduces nonverbal communication and speech loudness from 3-4 to 12 decibels at higher frequencies (2000-7000 Hz) depending on the mask.³ Thus, all communication between peers and teachers/students is adversely affected. Frequencies of 2000-4000Hz carry 90% of speech intelligibility; and consonants are difficult to discern with physical distance, noise, or when masked.⁴ For example, the words *walk*, *walked*, *walks*, *walking*, and *walker* might be audible but not understandable in a typical classroom environment.

Classroom Configurations:

Physical Distancing: An increase in distance between peers and teachers will present difficulties for students who are Deaf or hard of hearing. Assistive technology and accommodations

Note that school opening guidelines are given by the CDC, state government, and departments of health.

may be necessary for access to the curriculum and full comprehension.⁵ The CDC also discusses the use of gloves in community settings for those individuals who need tactile cues, such as students with deafblindness.⁶

Hybrid Models: When students attend class both remotely and in person, technology and accommodations will be necessary for comprehension of all messages from peers and teachers.

Staggering attendance: Students who are deaf/hard of hearing benefit from meaningful engagement with peers whether in American Sign Language or spoken language. Some students require social-emotional supports and direct experience in developing pragmatic language with peers, making masks/distance or alternating days with peers problematic for goal completion.

Increased ventilation noise impedes comprehension. Remote microphones and shutting doors will help.

Recommended Solutions:

Transparent handsewn masks increase effective communication but still present barriers and increase face-touching when adjusting. These masks may be difficult to wear for extended time depending on the style. All transparent masks benefit from anti-fog treatment and should be sanitized regularly. Fabric ties and “ear savers” may be more comfortable for those wearing amplification options.⁷

Face shields permit more audibility, visual access, and easier use of remote microphones. Shields can be washed and reused. Some are open at the top or sides, and one brand is closed on both with a removeable Velcro attachment. Consider face shields when distancing is possible.

Option for better access for limited use: When in need, the CDC allows for removing masks in the presence of distancing, face shields and/or other physical barriers along with handwashing if effective communication calls for this. See the CDC Guidelines for Cloth Face Coverings and letter from ASHA on the topic of those who find masks difficult to tolerate.⁸

Additional Accommodations Needed: Under masking and distancing conditions, students (and Deaf/hard of hearing staff) are likely to require additional accommodations for learning, including sign language support, visual supports, personal amplification, DM or soundfield devices to adjust for listening conditions and to reduce vocal fatigue for teachers, speech-to-text, written instructions, adequate lighting, reduced glare, and/or prompts for turn-taking or repeating peer comments. These accommodations might not have been necessary in typical classroom environments.

Consider grouping students who are Deaf/hard of hearing together for peer support and access to language.



Cloth Clear Mask



Clear Mask



Zshield Flex



The Humanity
Shield



The Communicator
Surgical Mask

See the Rapidly Developing List of Resources:

<https://tinyurl.com/y5o9ma37>



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