



## COVID-19 Guidance for Singing or Yelling

Evidence around COVID-19 is ever-evolving. From what we know now, it is currently not safe to sing, or yell in close proximity to others. The Division of Public Health (DPH) is especially concerned about singing or yelling indoors, in crowded settings and in settings with vulnerable populations. Wearing a face covering and social distancing more than 6 feet can help mitigate the spread of infection when people speak, yell or sing. However, when face coverings are not used, additional precautions may need to be considered.

### What we Know

Coronavirus disease 2019 (COVID-19) was first discovered in Wuhan China in late 2019. COVID-19 is spread easily from person to person through airborne respiratory droplets of varying sizes. COVID-19 can spread from one person to another even if the person does not show any symptoms of the disease. Strong evidence exists showing that large droplets, such as those in a cough or sneeze, as well as very small droplets in the air, such as those produced when singing or speaking (especially when speaking loudly or yelling as in coaches giving directions to athletes or camp staff giving directions to other staff or children), spread the disease. In fact, these very small airborne particles can travel up to 13 feet away from the infected person. Additionally, they can stay suspended in the air for a long period of time and potentially infect someone who breathes in that air, even up to three-hours later.

The smallest airborne droplets may be more of a concern than scientists previously recognized. Aerosol particles released when people sing may have led the coronavirus to spread to 45 members of the [Skagit Valley Chorale](#) in the state of Washington. Some choir members met for practice on March 3 and 10, 2020, before Washington state issued a stay-at-home order, and before Skagit County had any known COVID-19 cases. Choir members reportedly did not keep six-foot distance from each other at all times. In singing loudly infected choir members may have propelled the virus into each others' safety zones. Sadly, two choir members died.

The spread of droplets increases with volume. Ordinary speech aerosolizes significant amounts of respiratory particles and speaking emits more aerosol particles than breathing. A recent study published in [Scientific Reports](#) established that the louder one speaks the more aerosol particles are produced. It has long been known that normal speech also yields large quantities of particles that are too small to see with the human eye, but are large enough to carry a variety of communicable respiratory pathogens. The rate of particle emission during normal human speech increases with the volume/loudness (amplitude) of speaking/yelling/singing, ranging from approximately 1 to 50 particles per second (0.06 to 3 particles per cm<sup>3</sup>), regardless of the language spoken.

Infection spread depends on many factors, including whether people are inside or outdoors, how loudly and how much people are speaking, whether they are wearing masks, how closely spaced people are from one another and how well-ventilated a room is. As we reopen youth sports, pools and other recreational activities, there are more and more situations where yelling is common. Examples of this may be coaches yelling instructions to athletes, lifeguards shouting instructions to swimmers, or musicians singing to a small group of people or in a small community setting. Steps must be taken to protect those participating.



**Guidance:**

Consistent with the [Governor's 20<sup>th</sup> Modification to the State of Emergency](#), signed on May 31, 2020, and to avoid disease transmission, it is recommended that people follow these safety precautions.

- Wear a mask when in contact with other people outside of the home. [Always follow Delaware guidance on the use of cloth face coverings.](#)
- When you are outside of your home, stay at least 6 feet away from those not in your immediate family, even when wearing a face covering.
- If engaged in activities such as singing, or yelling, ensure you are wearing a face covering, and following additional requirements in the [Governor's 20<sup>th</sup> Modification to the State of Emergency](#) by staying at least 13 feet away from others, facing away from the audience, or stand behind a physical barrier or partition such as a sneeze guard if you are not wearing a face covering.
- Because wearing a face covering and standing far apart is difficult with singing, in-person choral singing is not currently a recommended activity.
- Instead of utilizing choirs, consider using recorded music or a song leader who is wearing a face covering and is standing at least 6 feet away from other individuals, or is at least 13 feet away from other individuals if not wearing a face covering.
- Consider holding singing activities outside. If face coverings or face shields are not available or cannot be used, the speaker, reader, or singer is encouraged to maintain at least thirteen (13) feet of distance between themselves and the audience, or consider facing away from the audience, or standing behind a physical barrier.
- If face coverings are difficult to wear during an activity, consider using face shields in addition to distancing as an alternative.
- If face coverings are available but not used, the reader, speaker, or singer must put the face covering back on and use hand sanitizer immediately after speaking, reading, or singing.