

Here are some key points from the recent University of Colorado study on aerosol emissions and singing. This is the link to the study page:

<https://smt.d.colostate.edu/reducing-bioaerosol-emissions-and-exposures-in-the-performing-arts/>

- Singing with a well-fitting mask GREATLY reduces the amount of aerosols emitted.
 - Singing with a mask produces less aerosols than sitting and breathing without a mask.
- Surgical masks are the best option for singing - the cost is less than \$1 per mask in packs of 50. These are disposable.
 - A well-fitting mask is key. Surgical masks are snug enough and give some space in front.
 - Washable “singing masks” are available, but have not been tested.
- Singing produces less aerosols than coughing, but more than speaking.
- Particle emissions are comparable between wind instruments and singing; the exception is oboe, which has higher emissions.
- Rehearsals need to be no longer than 30 minutes before taking a break.
 - When rehearsing indoors, leave the room for 20 minutes.
 - When rehearsing outdoors, remain in place but do not sing or play for 5 minutes.
 - Very large rooms, such as auditoriums or gyms, with proper airflow, are comparable to outdoor spaces.
- Maintain a distance of 6 feet between singers in all directions.
- Air purifiers with HEPA filters are important and provide more mitigation, especially in rooms without windows or proper ventilation.
- Portable amplifiers should be used for rehearsals so directors will be able to speak at a “normal” volume.
- For room ventilation, there should be at least *three* air changes per hour (ACH).
- Proper hygiene is crucial
 - Have hand sanitizer available
 - Wash hands before and after rehearsals
 - Each singer will have their own music and folder

Here is the link to more information:

<https://www.nfhs.org/articles/unprecedented-international-coalition-led-by-performing-arts-organizations-to-commission-covid-19-study/>