Electronics industry workers are considering whether to wear face coverings or surgical masks when at their workplace. Currently, there are no requirements or specifications regarding the use of medical mask products in nonmedical workplaces. We offer this framework to use in your decision-making process.

DIFFERENCES BETWEEN FACE COVERINGS AND MASKS

The U.S. Centers for Disease Control and Prevention (CDC) and some governing bodies currently recommend the use of cloth face coverings for the general public in areas where social distancing may be difficult. This type of face covering helps people who may have the virus from transmitting it to others. That is, it protects others from what you exhale, e.g., during talking, breathing heavily, sneezing, or coughing. Cloth face coverings may be single use or washable. They do not provide complete protection from the virus (or other contaminants) because they are not fitted to your face.

Unlike cloth face coverings, surgical masks are made to conform with the ASTM international standards for protection and testing of this type of equipment. Surgical masks – also referred to as face masks, isolation masks, dental masks, or medical procedure masks – can be made in different thicknesses and with different abilities to protect you from contact with liquids. If worn properly, a surgical mask can help block others’ exhaled droplets, splashes, sprays, or splatter from reaching your mouth and nose. They may also help reduce exposure from what you exhale (e.g., during talking, sneezing, coughing) to others. They are intended to be used once. They do not provide complete protection for the wearer because of the loose fit.

In nonmedical industries, including electronics manufacturing, face coverings and surgical masks are not required for worker protection but simply to limit or prevent spread of the virus; they are not considered Personal Protective Equipment (PPE), which are designed specifically to minimize workplace risks.

Face coverings and surgical masks are not a substitute for other protective measures such as washing hands or physical distancing, but they may be helpful when combined with these primary interventions on the job.

WHICH ONE IS RIGHT FOR ME?

There is no “one-size-fits-all” answer to the question of which face covering is best for a given business or employee. Factors to consider when deciding about face coverings or masks include the following.

1. Uniformity: Consider who should provide the face covering or mask. Employer-provided face coverings or masks can ensure uniform, equal protection to all workers. Consider putting a written plan in place to ensure employee-provided face coverings or masks conform to requirements for use and maintenance. Whether provided by the employer or employee, consider having a written policy that requires workers to review and acknowledge that they understand their responsibilities.
2. **Effectiveness:** Research studies on the efficacy of face coverings and masks are ongoing and our understanding about usefulness of this type of “source control” is evolving. For example, a recent study demonstrates a simple measurement method to test the efficacy of different types of face coverings and masks. The findings indicate that many of the different types perform well in limiting the spread of what you exhale, but that there may be limitations to some styles.

A surgical mask tested against an ASTM standard is likely to be more effective than a cloth face covering. However, effectiveness is also affected by use and maintenance of the face covering or mask. Written guidelines may be needed to ensure proper use and maintenance. Consider the frequency and duration of use, the frequency of washing (for washable face coverings), and the durability of the mask life (e.g., some masks are intended to be single use.)

3. **Job Function:** The level of protection needed in your workplace may depend on the worker’s job function and the duration of the work shift. Consider how a heavier face covering or mask may affect its use over the duration of a shift.

4. **Barrier Level:** Surgical masks are rated for the level of protection they can provide, and you may want to consider which level is appropriate. The ASTM standard called ASTM F2100-19 e1, Standard Specification for Performance of Materials Used in Medical Face Masks, is a specification that covers testing and requirements for materials used in the construction of medical face masks or surgical masks, as well as performance based on bacterial filtration efficiency, differential pressure, sub-micron particulate filtration efficiency, resistance to penetration by synthetic blood, and flammability. The standard identifies three performance classes based on the barrier performance properties of the materials in the medical face masks.

Currently, there are no barrier requirements for cloth face coverings. Face coverings or masks that are designed with exhalation valves, which provide an opening or break in the fabric barrier, can still protect the wearer, but they do not capture as much of what is exhaled, decreasing the protection of nearby workers.

5. **Availability:** Availability of face coverings and masks may affect selection. Home-made face coverings may be easier to make or procure than those manufactured and shipped from elsewhere. IPC has contacts with companies that are making masks; please contact North American Government Relations Senior Director Ken Schramko at IPC to get more information about sourcing masks via IPC points of contact.

**WHAT ABOUT N95 RESPIRATORS?**

The use of filtering facepiece respirators (e.g., N95 or N95-like) or air purifying respirators (e.g., half- or full-face with HEPA cartridges) is currently not recommended for electronics industry workers unless this equipment is already in use for protection from existing workplace hazards and covered under the facility’s respiratory protection program. Some N95 respirators and most air-purifying respirators are designed to function using exhalation valves. While these valves do not compromise the protection of the worker wearing this equipment, they can decrease the level of protection from what is exhaled for those workers who are not wearing a similar level of respiratory protection and who are working near the wearer.

**FOR MORE INFORMATION RELATED TO THIS INDUSTRY UPDATE, PLEASE CONTACT:**

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**References:**


FDA: [N95 Respirators and Surgical Masks (Face Masks)](https://www.fda.gov/medical-devices/n95-respirators-and-surgical-masks-face-masks)

August 2020 study: [Low-cost measurement of facemask efficacy for filtering expelled droplets during speech](https://www.journals.plos.org/plosone/article?id=10.1371/journal.pone.0239964)

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