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Technical Bulletin

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COVID-19 Pandemic

Summary

The World Health Organization (WHOE) declared the outbreak a pandemic on March 11, 2020. COVID-19 continues to spread globally impacting millions of lives, overwhelming health systems, and affecting global economic and social domains. As the world continues to learn more about the SARS-CoV-2 virus and works to vaccinate people as quickly as possible, technical guidance on responding to the pandemic continues to evolve. It is recommended to consult the latest guidance and local recommendations frequently for the most updated information to continue to respond to the pandemic and help prevent the spread of COVID-19.

COVID-19

People of any age can become infected with COVID-19. Some may develop no symptoms of disease whereas others can become severely ill and develop serious complications that can lead to death. COVID-19 infection can result in a wide range of symptoms with fever, dry cough and fatigue being most common. Most people who get COVID-19 recover, but those who are over 60 years of age and those with underlying medical conditions are at higher risk of developing severe illness (WHO).

Transmission

The SARS-COV-2 virus that causes COVID-19 can be spread from person to person via close contact through exposure to exhaled particles that contain SARS-CoV-2 virus. When people breathe, talk, cough, or sneeze they produce particles in a range of sizes from larger droplets to smaller aerosolized particles that can remain suspended in the air for minutes to hours. Infection can occur when these particles are inhaled or get into a person's mouth nose or eyes. Less commonly, the virus may possibly be spread after people touch contaminated surfaces and then touch their nose, mouth or eyes. Under certain circumstances, such as being in an enclosed space with others for extended periods of time without adequate ventilation, infections can also be spread to those who are not necessarily in close contact with an infected person when smaller particles remain in the air for longer periods of time. This is known as aerosol or airborne transmission and more studies examining this mode of transmission are underway (WHO, CDC). It is important to note that people who are infected but may not have symptoms can also spread the virus to others. Multiple new variants of the SARS-CoV-2 virus have emerged as the virus mutates over time. These variants may spread more easily between people and are being studied to learn more about controlling spread. Recommendations and guidance for controlling the spread of COVID-19 and responding to the pandemic adapt as the situation evolves and more data become available. It is recommended to consult the World Health Organization (WHO), U.S. Centers for Disease Control and Prevention (CDC) websites, along with other resources and local public health guidance frequently for the most up to date information.

Recommendations

Members of the General Public

Consult applicable guidance for the general public from WHO, U.S. CDC, or your local health authority. At this time WHO has not made any recommendations for personal protective equipment (PPE) use by the general public, including respirators.

Coronavirus disease (COVID-19) advice for the public (WHO)

Toolkit for General Public (U.S. CDC)

Healthcare

The WHO and the U.S. CDC have published infection prevention guidance intended for healthcare workers, healthcare managers and teams working in infection prevention and control.

Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected (WHO)

Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings (U.S. CDC)

These organizations have also offered guidance for organizations facing a shortage of respirators during this pandemic.

Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19) (WHO)

Strategies for Optimizing the Supply of N95 Respirators (U.S. CDC)

Healthcare workplaces should also review recommendations and requirements from the applicable regulatory body for their jurisdiction, such as the US Occupational Health and Safety Administration (OSHA).

Non-Healthcare Workplaces

The WHO and the U.S. CDC have also published guidance for non-healthcare businesses and workplaces.

Country and Technical Guidance – Coronavirus disease (COVID-19)(WHO)

Guidance for Businesses and Employers Responding to Coronavirus Disease 2019 (COVID-19)(U.S. CDC)

Employers should also review recommendations and requirements from applicable regulatory body for their jurisdiction, such as the US Occupational Health and Safety Administration (OSHA), and other health authorities.

3M Resources

3M is committed to supporting the public health and global response to the COVID-19 pandemic and helping to solve complex health and safety challenges. 3M offers a wide variety of tools and resources including technical guidance, education and training to support workplace safety and personal protective equipment (PPE) needs.

Documents

General Respiratory Protection Information

- 3M Technical Bulletin - Respiratory Protection for Airborne Exposures to Biohazards
- 3M Technical Bulletin - Comparison of FFP2, KN95, and N95 Filtering Facepiece Respirator Classes
- 3M Frequently Asked Questions - Filtering Facepiece Respirators: General Public
- 3M Frequently Asked Questions - Filtering Facepiece Respirators: Workplace
- 3M Frequently Asked Questions - Filtering Facepiece Respirators: Healthcare
- 3M Technical Bulletin - Using a 3M™ Versaflo™ PAPR Under a Protective Garment
- 3M Technical Bulletin - Reusable Respirator FAQ: Healthcare - United States

Respirator Selection and Use Considerations

- 3M Technical Bulletin - Surgical Masks, Standard N95s, Surgical N95s: A Comparison
- 3M Technical Bulletin - Possible Alternatives to Surgical N95 Respirators: Healthcare
- 3M Technical Bulletin - Filtering Facepiece Respirators - Tips for Use
- 3M Technical Bulletin - 3M Elastomeric Facepiece Respirators – Tips for Use
- 3M Respirators in International Packaging Made Available in US during COVID-19
- 3M Technical Bulletin - Respirators from Asia Imported and Distributed by FEMA
- 3M Filtering Facepiece Respirators Imported to U.S. from Asia by FEMA
- 3M Technical Bulletin - Surgical Mask Use with Loose Fitting Headgear
- 3M Technical Bulletin - Respirator Selection Considerations for Small Faces
- 3M Technical Bulletin - Optimizing Supplies of Filtering Facepiece Respirators: U.S. Non-Healthcare Workplaces
- 3M Technical Bulletin - Cleaning and Disinfection of Personal Protective Equipment (PPE) Tips for Non-Healthcare Workplaces
- 3M FAQ - Understanding Valved Filtering Facepiece Respirators in Non-Healthcare Workplaces - United States

Respirator Shelf Life Conditions

- 3M Technical Bulletin - Respirators Beyond Their Shelf Life - Considerations
- Frequently Asked Questions: 3M Health Care Particulate Respirator and Surgical Masks Storage Conditions and Shelf Life
- 3M Filtering Facepiece Shelf Life Letter

Cleaning and Disinfecting

- 3M Technical Bulletin - Cleaning and Disinfecting 3M Reusable Elastomeric Half and Full Facepiece Respirators following Potential Exposure to Coronaviruses
- 3M Technical Bulletin - Cleaning and Disinfecting 3M Powered Air Purifying Respirators following Potential Exposure to Coronaviruses
- 3M Technical Bulletin - Cleaning and Disinfecting 3M™ Scott™ Reusable Full Facepiece Respirators Following Potential Exposure to Coronaviruses
- 3M Tech Talk- 3M Disinfectants and General Information on Coronavirus
- 3M Technical Bulletin - Decontamination Methods for 3M N95 Respirators
- 3M Technical Bulletin - Cellulose Certification - Filtering Facepiece Respirators
- 3M Technical Bulletin - Cellulose Certification - Particulate Filters
- 3M Technical Bulletin - Cleaning and Disinfecting 3M™ Powered Air Purifying Respirators following Potential Exposure to Coronaviruses - 3M™ Jupiter, 3M™ Adflo™ PAPR Assemblies and 3M™ Scott™ Duraflow, Proflow and Tornado PAPR Assemblies
- 3M Technical Bulletin - Cleaning and Disinfecting 3M™ PELTOR™ Protection & Communication Solutions following Potential Exposure to Coronaviruses
- 3M Technical Bulletin - Cleaning and Disinfecting 3M™ Head, Eye and Face Protection Products following Potential Exposure to Coronaviruses
- 3M Technical Bulletin - Cleaning and Disinfecting 3M™ Versaflo™ M-Series Headgear Following Potential Exposure to Coronaviruses
- 3M Frequently Asked Questions - Respiratory Protection FAQ – First Responder Respirator (FRR)
- 3M Technical Bulletin - Cleaning and Disinfecting 3M™ Speedglas™ Welding Helmets following Potential Exposure to Coronavirus

Other PPE

- 3M Technical Bulletin - Eye Protection for Infection Control
- 3M Technical Bulletin - Protective Coveralls for Potential Coronavirus Exposure
- Healthcare Eye Protection Supply Optimization Strategies During COVID-19 Pandemic: US
- 3M Frequently Asked Questions - Disinfecting Fall Protection Equipment - COVID-19 Concerns
- 3M Technical Bulletin - Considerations for Using the 3M™ EARfit™ Dual Ear Validation System During the COVID-19 Pandemic
- 3M Technical Bulletin - PPE Considerations When Using Electrostatic Sprayers to Apply Disinfectants

Spanish Version

- 3M Technical Bulletin - Novel Coronavirus Outbreak (Nuevo Brote de Coronavirus) - Spanish version

Respirator Demonstration and Training Videos

Filtering Facepiece Respirators

- Tips for using a 3M™ Vertical Flat-Fold Filtering Facepiece Respirator 9010
- Tips for using a 3M™ Flat-Fold Filtering Facepiece Respirator 9210+
- Tips for using a 3M™ Flat-Fold Filtering Facepiece Respirator 9105
- Tips for using a 3M™ Filtering Facepiece Respirator 8511
- Tips for using a 3M™ Filtering Facepiece Respirator 8210
- Tips for using a 3M™ Flat-Fold Filtering Facepiece Respirator 1870+
- Tips for using a 3M™ Filtering Facepiece Respirator 1860
- Donning and Doffing Healthcare PPE with 3M™ Filtering Facepiece Respirators
- Filtering of Bioaerosols by Filtering Facepiece Respirators
- Fluid Resistance Testing

Powered Air-Purifying Respirators (PAPRs)

- 3M™ Jupiter Powered Air Turbo Unit – Assembly and Operation Video
- 3M™ Versaflo TR-300 Powered Air Turbo Unit – Assembly and Operation
- 3M™ Versaflo™ TR-300+ Powered Air Turbo Unit – Cleaning and Disinfection
- 3M™ Versaflo TR-600 Powered Air Turbo Unit – Assembling, Donning and Doffing
- 3M™ Versaflo™ TR-600 Powered Air Turbo Unit – Cleaning and Disinfection
- Donning and Doffing Healthcare PPE with 3M™ Powered Air Purifying Respirators

Reusable (Elastomeric) Respirators

- Training Videos - 3M™ Ultimate FX Full Facepiece Reusable Respirator FF-400 Series Video Library
- Training Videos – 3M™ Half Facepiece Reusable Respirator 6000 Series Video Library
- Training Videos – 3M™ Half Facepiece Reusable Respirator 6500 Series Video Library
- Training Videos – 3M™ Half Facepiece Reusable Respirator 7500 Series Video Library
- Demonstration Videos – 3M™ Full Facepiece Reusable Respirator 6000 Series Video Library
- 3M™ 6000 Series Half Facepiece Respirator with 5N11 Combination - Assembly, Donning and Doffing Video
- 3M™ 6000 Series Half Facepiece Respirator with 7093 Filter - Assembly, Donning and Doffing Video
- Interim Disinfection 3M™ 6000 Series Half Facepiece Respirator
- Submersion Disinfection 3M™ 6000 Series Half Facepiece Respirator

Back to Work

- PPE Best Practices for Non-Healthcare COVID-19 Return-to-Work

Fit Testing Resources

- 3M Quick Reference Guide to Qualitative Fit Testing (OSHA)
- 3M Quick Reference Guide to Qualitative Fit Testing (UK)
- 3M Fit Testing Video
- 3M Fit Testing Video (Healthcare)
- 3M Fit Testing FAQs
- 3M Technical Bulletin Quantitative Fit Testing of Respirators
- 3M Technical Bulletin - Fit Test Hygiene During COVID-19 Pandemic
- U.S. OSHA Position on Fit Testing during COVID-19
- 3M Technical Bulletin - Fit Testing during Urgent Use of New Respirator Models
- 3M Technical Bulletin - Tips for Managing Respirator Fit Testing Programs
- 3M Technical Bulletin - U.S. Fit Testing Policy for Tight Fitting Respirators

Additional Resources

- WHO: https://www.who.int/health-topics/coronavirus
- CDC: https://www.cdc.gov/coronavirus/index.html
- OSHA: https://www.osha.gov/SLTC/novel_coronavirus/
- ECDC: https://www.ecdc.europa.eu/sites/default/files/documents/Risk-assessment-pneumonia-Wuhan-China-22-Jan-2020.pdf
- PHAC: https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html
- Hospital Respiratory Protection Program Toolkit (OSHA, NIOSH, CDC): https://www.osha.gov/Publications/OSHA3767.pdf

References

- https://www.who.int/health-topics/coronavirus
- https://www.cdc.gov/coronavirus/index.html

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