

2019 Novel Coronavirus Outbreak

Description

The World Health Organization (WHO) has reported an outbreak of disease originating in Wuhan City, Hubei Province, China, caused by a novel coronavirus (referred to as 2019 Novel Coronavirus (2019-nCoV)). The initial cases of this virus have been associated with a specific seafood and animal market in Wuhan. Additional cases have been identified in people who have not visited this market, but have visited other markets or have interacted with infected individuals.

Virus

Illness is being caused by a newly identified coronavirus, 2019-nCoV. Coronaviruses are common and typically cause mild to moderate respiratory and cold type symptoms, though certain strains of coronaviruses have caused more severe illness. This newly identified virus is in the same family as the viruses that cause Severe Acute Respiratory Syndrome (SARS), which was first identified in Asia in 2003, and Middle East Respiratory Syndrome (MERS), which was identified in 2012 with cases still occurring today. A main initial animal reservoir for the virus that caused SARS is believed to be civet cats that infected other animals, while the initial animal reservoir for the virus that causes MERS is believed to be dromedaries (e.g. camels). The reservoir for 2019-nCoV is not known at this time.

Health Effects

The symptoms of the illness associated with this novel coronavirus are similar to those caused by influenza and other respiratory illnesses and include coughing, shortness of breath, fever, and difficulty breathing. A small number of people infected with this novel coronavirus have died.

Transmission

This novel coronavirus was originally transmitted to humans via an animal reservoir (source), believed to be an animal that the initial cases encountered at the seafood and animal market in Wuhan.

Authorities have confirmed that human-to-human transmission has also occurred. Secondary cases (contracted from humans rather than a reservoir) include both members of the public and also healthcare workers who have had contact with other infected people, and have occurred in several countries in addition to China.

Recommendations

WHO recommends that everyone wash their hands regularly, cover their nose and mouth when sneezing and coughing, and avoid close contact with anyone who is coughing or sneezing or showing signs of respiratory illness. WHO also recommends thoroughly cooking meat and eggs. At this time WHO has not made any recommendations for personal protective equipment (PPE) use, including respirators, by the general public.

WHO has published guidance intended for healthcare workers (HCWs), healthcare managers, and teams working in infection prevention and control. WHO recommends that eye protection (goggles or a face shield) be used during patient contact along with gloves, a medical mask, and a fluid resistant gown. Airborne precautions, including an N95, FFP2, or equivalent respirator, should be used during aerosol-generating procedures.

[https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected)

The U.S. Centers for Disease Control and Prevention (CDC) has recommended that Health Care Workers entering the hospital or clinic room (in a healthcare facility) of a suspected novel coronavirus case use standard precautions, contact precautions, and airborne precautions. This includes non-sterile gloves, a disposable gown, respiratory protection that is at least as protective as a fit-tested NIOSH-certified disposable N95 filtering facepiece respirator, and eye protection (e.g., goggles, a disposable face shield that covers the front and sides of the face).

CDC refers to their infection control guidance website for additional guidance.

<https://www.cdc.gov/coronavirus/2019-nCoV/hcp/infection-control.html>

Those potentially in contact with suspected or confirmed cases of this novel coronavirus should review all recommendations by the WHO, CDC, and other health authorities.

Summary

A novel coronavirus has been identified, which has caused cases of pneumonia-like symptoms in people who have been in Wuhan City, Hubei Province, China, and cases have now been identified outside of China. The situation is evolving, and it is recommended that all concerned consult the WHO and U.S. CDC's websites frequently for the most updated information regarding this situation.

3M Resources

Documents

- [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 - Respiratory Protection: General Public](#)
- [3M Frequently Asked Questions - Respiratory Protection: Workplace](#)
- [3M Frequently Asked Questions - Respiratory Protection: Healthcare](#)
- [3M Technical Bulletin - Novel Coronavirus Outbreak \(Nuevo Brote de Coronavirus\) - Spanish version](#)
- [3M Technical Bulletin - Respirators and Surgical Masks: A Comparison](#)
- [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 - Surgical N95 vs. Standard N95 – Which to Consider?](#)
- [3M Tech Talk - Disinfection with Bleach](#)

Videos

- [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](#)

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>

References

- CDC 2020: <https://www.cdc.gov/coronavirus/2019-nCoV/summary.html>
- <https://www.who.int/health-topics/coronavirus>
- <https://www.cdc.gov/coronavirus/index.html>