

N95 Requirements – CDC Rationale

CDC's guidance to use NIOSH-approved N95 disposable filtering facepiece or higher-level respirators when providing care for patients with suspected or known COVID-19 is based on the current understanding of SARS-CoV-2 and related respiratory viruses.

Current data suggest that close-range aerosol transmission by droplet and inhalation and contact followed by self-delivery to the eyes, nose or mouth are likely routes of transmission. Long-range aerosol transmission, such as is seen with measles, has not been a feature of SARS-CoV-2.

Potential routes of close-range transmission include splashes and sprays of infectious material onto mucous membranes and inhalation of infectious virions exhaled by an infected person. The relative contribution of each of these is not known for SARS-CoV-2.

Facemasks commonly used during surgical procedures will provide barrier protection against droplet sprays contacting mucous membranes of the nose and mouth, but they are not designed to protect wearers from inhaling small particles. N95 and higher-level respirators, such as other disposable filtering facepiece respirators, powered air-purifying respirators (PAPRs) and elastomeric respirators, provide both barrier and respiratory protection because of their tight fit and filtration characteristics.

Respirators should be used as part of a respiratory protection program that provides staff with medical evaluations, training and fit testing.

Although facemasks are routinely used for the care of patients with common viral respiratory infections, N95 or higher level respirators are routinely recommended for emerging pathogens like SARS-CoV-2 which have the potential for transmission via small particles, the ability to cause severe infections, and no specific treatments or vaccines.

CDC recommendations acknowledge the current challenges with limited supplies of N95s and other respirators. Facilities that do not have sufficient supplies of N95s and other respirators for all patient care should prioritize their use for activities and procedures that pose high risks of generating infectious aerosols and use facemasks for care that does not involve those activities or procedures. Detailed strategies for optimizing the supply of N95 respirators is available on the CDC website. Once availability of supplies is reestablished, the guidance states that the use of N95 and higher-level respirators should resume.

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html>

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