



## **Transmission of COVID-19**

COVID-19 is a viral disease caused by a novel (new) coronavirus called severe acute respiratory syndrome (SARS) coronavirus 2 or SARS-CoV-2. The disease it causes is called Coronavirus Disease 2019 or COVID-19. The disease is thought to be primarily spread by droplets expelled from the nose or mouth with coughing, sneezing, or blowing the nose. Droplet particles are relatively large and fall out of the air onto surfaces quickly, hence the recommendation that providers remain at least 6 feet away from a patient of concern without PPE. Droplets are filtered well by surgical type masks when worn by patients and providers. There is increasing concern about the production of smaller particles, aerosols, when providers perform airway interventions such as nebulized treatments, CPAP, BiPAP, and placement of invasive airways such as endotracheal tubes and supraglottic tubes, and BVM or mechanical ventilation. N95 masks are efficient at filtering aerosols, particularly when fitted to the wearer. EMS providers should avoid procedures that generate aerosols whenever possible, and wear N95 masks when those procedures are undertaken. If aerosol generating procedures are absolutely necessary, trying to complete them in an open air environment prior to transport should be considered. If performed in the patient care compartment ventilation should be maximized and all providers in the compartment should wear N95 masks. High-efficiency particulate air (HEPA) filters should be fitted to the exhalation ports of respiratory equipment used in these situations whenever possible, although this has not been a standard part of pre-hospital practice in the past. EMS agencies should explore purchasing such filters from their medical suppliers for the equipment that they use.

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