

Airborne protection when treating people with COVID-19



COVID-19 can survive for long periods on some surfaces and in fine aerosols that are sometimes produced during advanced medical procedures. Physiotherapists must consider the risks and benefits of carrying out **aerosol generating procedures**¹, and take the appropriate precautions. **Airborne protection** should be used during respiratory physiotherapy interventions.

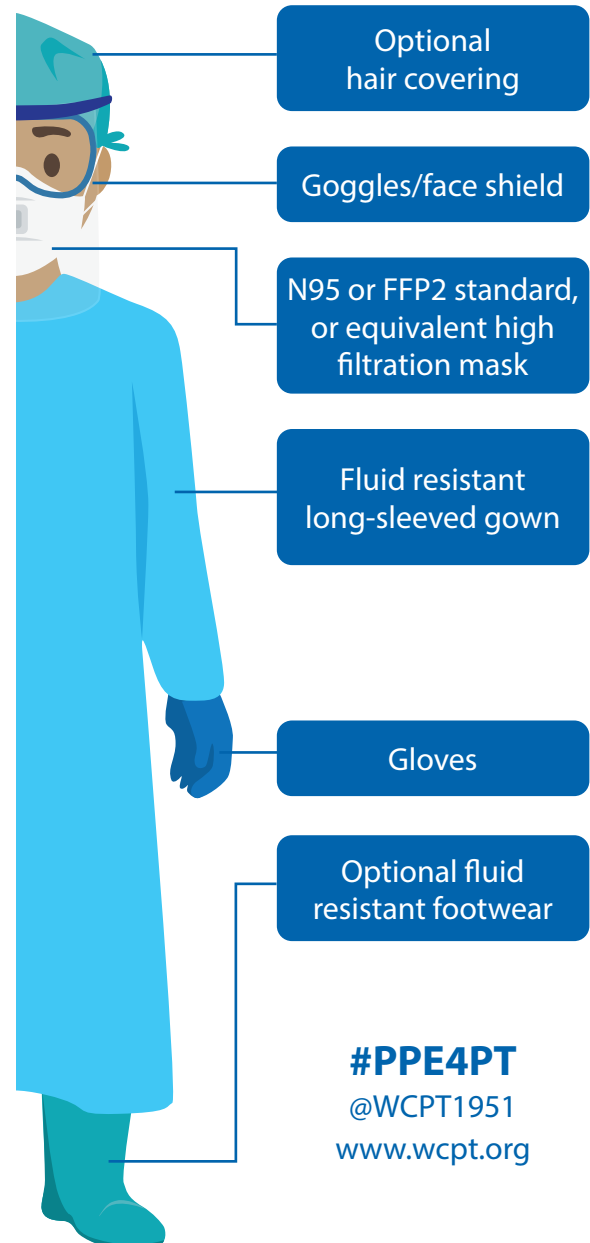
Aerosol generating procedures include²:

- Cough generating procedures (eg coughing and huffing during treatment)
- Positioning/gravity assisted drainage techniques and manual techniques (eg expiratory vibrations, percussion, manual assisted cough) that may trigger a cough and the expectoration of sputum
- Use of positive pressure breathing devices (eg IPPB), mechanical insufflation-exsufflation (MI-E) devices, intra/extra pulmonary high frequency oscillation devices (eg The Vest, MetaNeb, Percussionaire)
- PEP and oscillating PEP devices
- Bubble PEP
- Nasopharyngeal or oropharyngeal suctioning
- Manual hyperinflation (MHI)
- Open suction
- Saline instillation via an open circuit/ endotracheal tube
- Inspiratory muscle training, particularly if used with people who are ventilated and disconnection from a breathing circuit is required
- Sputum inductions
- Any mobilisation or therapy that may result in coughing and expectoration of mucus.

Aerosol generating procedures should be carried out in a negative-pressure room or in a single room with the door closed.

If a person with COVID-19 is being treated outside an isolation room, make sure they are wearing a surgical mask.

For airborne protection³:



**World Confederation
for Physical Therapy**

1 Van Doremalen N, Bushmaker T, Morris DH, Holbrook MG, Gamble A, Williamson BN, Tamin A, Harcourt JL, Thornburg NJ, Gerber SI, Lloyd-Smith JO, De Wit E, & Munster VJ. 2020. Letter: Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1. *New England Journal of Medicine*. Published online 17 March 2020 <https://www.nejm.org/doi/10.1056/NEJMc2004973> (Access date: 14 April 2020)

2 Thomas P, Baldwin C, Bissett B, Boden I, Gosselink R, Granger CL, Hodgson C, Jones AYM, Kho ME, Moses R, Ntoumenopoulos G, Parry SM, Patman S, van der Lee L (2020): Physiotherapy management for COVID-19 in the acute hospital setting. Recommendations to guide clinical practice. https://www.wcpt.org/sites/wcpt.org/files/files/wcptnews/images/Physiotherapy_Guideline_COVID-19_FINAL.pdf

3 Rational use of personal protective equipment for coronavirus disease (COVID-19): interim guidance. https://apps.who.int/iris/bitstream/handle/10665/331498/WHO-2019-nCoV-IPCPE_use-2020.2-eng.pdf