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Using the NObreath® during COVID-19 (1st and 2nd generation)

Key organizations such as the Primary Care Respiratory Society (PCRS) and the Association of Respiratory Technology and Physiology (ARTP) have advised that FeNO testing is **low risk** and **unlikely to generate infectious aerosols**, therefore supporting FeNO testing as a **'Non-Aerosol Generating Procedure' (Non-AGP)**.

It is also noteworthy that there have been no reports of coughing experienced from the use of any of Bedfont® Scientific's first and second generation NObreath® device. Recent clinical and usability studies performed on our NObreath® devices reviewing safety and performance, **have no reported adverse events** where coughing was seemingly induced by the breathing maneuvers required by Bedfont® Scientific's NObreath® device.

Despite the safety of FeNO testing in general; both the 1st and 2nd generation NObreath® mouthpieces contain an infection control filter, which has been independently tested for efficacy by Public Health England. The filtration rates are displayed below for both 1st and 2nd Generation NObreath® mouthpieces:

1st Generation NObreath® Mouthpiece Bacterial Filteration Efficiency (BFE) and Viral Filteration Efficiency (VFE)	
BFE % rate	>99%
VFE % rate	>99%

2nd Generation NObreath® Mouthpiece Bacterial Filteration Efficiency (BFE) and Viral Filteration Efficiency (VFE)	
BFE % rate	>99%
VFE % rate	>98%

Both 1st and 2nd generation NObreath® mouthpieces have been tested to filter viruses as small as 24 nanometres in diameter and the Covid-19 virus particle has a diameter of approximately 125 nanometres. The virus model used is incredibly penetrable, even more so than a majority of human viruses, therefore makes it a very effective model to use for virus filtration efficiency (VFE). Therefore, Bedfont® can conclude that bacterial and viral pathogens (including COVID-19) will effectively be removed by the 1st and 2nd Generation NObreath® mouthpiece filter at the efficiency rates shown above.

The NObreath® mouthpieces are a single-patient use mouthpiece, meaning it should be disposed of according to local waste guidelines immediately after testing is complete to further minimize the risk of cross infection.

Furthermore, When taking a FeNO measurement with the NObreath®, due to our uniquely designed NO scrubber and software algorithms, the patient does not inhale through the device or mouthpiece before exhaling, to further reduce the risk of cross-infection.

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