A product that sprays a vapour of salt solution could help prevent the transmission of the Sars-CoV-2 virus without the need for masks

Spotted: Most experts agree that the best way to prevent the spread of COVID-19 is to wash your hands frequently, practice social distancing and above all, wear a mask. Yet masks aren’t perfect. A high-end N95 mask can filter around 99.8 per cent of the virus from the air, but many cotton masks filter just 50 per cent or less. Now, a Harvard professor and entrepreneur has developed an aerosol that is more effective than a mask.

Professor David Edwards and his company Sensory Cloud have developed an aerosol squirter, called the Nimbus, which is capable of turning liquid into a cloud of vapour. This is puffed in front of the nose and then inhaled. The liquid is a proprietary solution of salts, called Fend, which is similar to seawater.

In a small recent study, Edwards demonstrated that inhaling the Fend vapour can reduce the number of droplets that fly from the nose and mouth while speaking or sneezing by 99 per cent. As it is these droplets that carry the COVID-19 virus, the vapour should make sufferers less contagious to others. Edwards also believes the vapour could help prevent the virus from moving into the lungs.

Edwards explains that Nimbus and Fend were based on work he did while researching how to protect people from potential airborne anthrax weapons. As part of that research, he looked at mucins, the protein building blocks inside mucus. He reports that “It led to . . . an observation that when you inhale simple saline—sodium chloride—there’s an effect that salt has on mucins and mucin-like proteins and . . . that leads to a calmness of surface in airways.”

Nimbus is just one of many new products that have emerged rapidly to help fight the coronavirus pandemic. Other innovative products we have seen recently include an on-board air curtain designed
to shield air passengers from droplets and a virus-repelling fabric.

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Takeaway:

Because the Nimbus vapour is thought to be effective for up to six hours, it could be a convenient alternative to mask-wearing. Edwards imagines offices, restaurants or theatres pumping a cloud in front of each person as they walk in, making them COVID-safe while they are in the building. The product is expected to be available for sale this September. However, it is not yet known whether the Nimbus will be effective in real-world situations.