Air Ionisers

PROJECT SAFEGUARD

Reduce aerosols from the air in poorly ventilated spaces

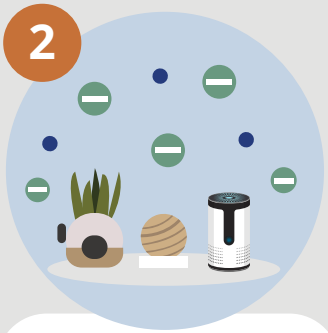
Inactivates viruses (>97%), allergens, mould and germs[1]

[1]Ionising air affects influenza virus infectivity and prevents airborne transmission (2015), taken from Scientific Reports

1

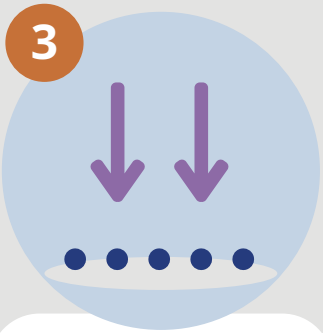
Speech droplets disperse into **tiny droplets known as aerosols**

2



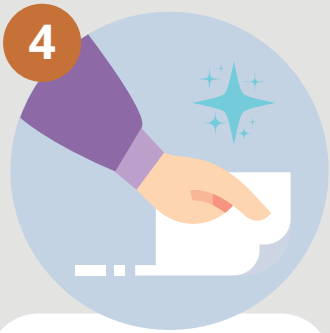
Ionisers **generate negative ions** into the air

3



Charge up aerosol particles, causing them to **stick to surfaces**

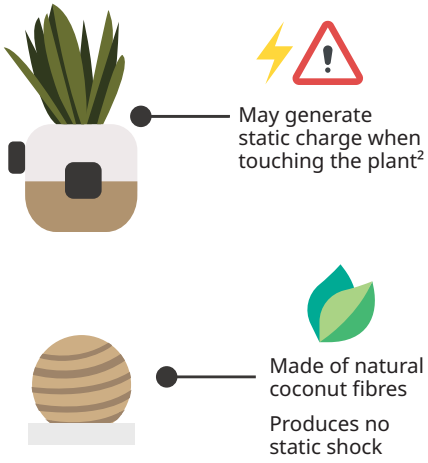
4



Viruses can be killed by **disinfecting high-touch surfaces frequently**

Plant and Natural Fibre Ionisers

- Generate up to a million times more negative ions than a normal plant
- Produces negligible ozone
- Environmentally friendly



[2]Note the difference between static and electric charges; a static charge is safe even if uncomfortable, while an electric charge is not

Ady Suwardi et al. The Efficacy of Plant-based Ionizers in Removing Aerosol for COVID-19 Mitigation, Research, 2021, Article ID 2173642
https://spj.sciencemag.org/journals/research/aip/2173642/

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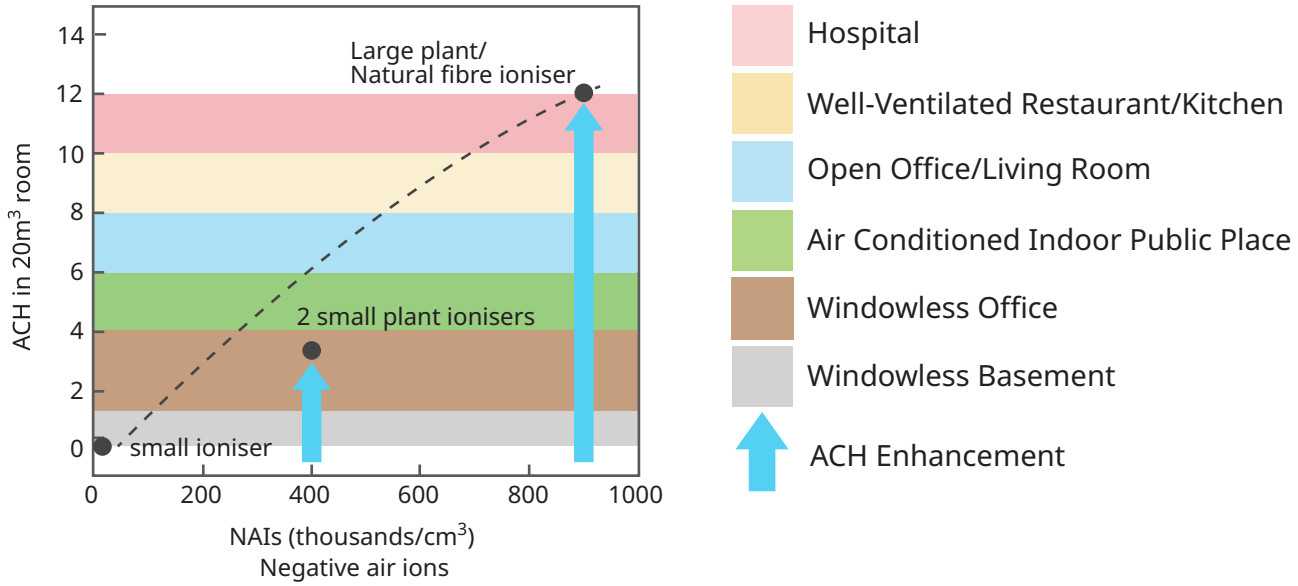
Air Changes per Hour (ACH)



The Centers for Disease Control and Prevention (CDC) recommends a **minimum ACH of 6** for patient-care areas including hospitals[2]

A large plant or a natural fibre ioniser in a 20m³ room achieves an **ACH over 12**, which exceeds ventilation requirements for hospitals, to reduce the spread of aerosols

Clean air delivery rate (**CADR**), a common specification in many ionisers/air purifiers, refers to the capacity to deliver clean air in indoor spaces

A **large plant or a natural fibre ioniser** with CADR of 240 m^3/hour will create ACH of **24** in a 10 m^3 room, but will only achieve ACH of **12** in a 20 m^3 room

An **air purifier** with CADR of 100 m^3/hour will create ACH of **10** in a 10 m^3 room, but will only achieve an ACH of **5** in a 20 m^3 room

[2]Guidelines for Environmental Infection Control in Health-Care Facilities (2003), taken from the Centers for Disease Control and Prevention (CDC)

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