

CAN CLAPPING HANDS KILL SARS-CoV-2?

The only soundwaves known to damage bacteria and viruses are ultrasonic waves, which are above 20 kHz. These high energy waves can disrupt biological material only when in direct contact (at distances of a few millimetres in a liquid medium), and where energy loss is minimal. Studies have shown that all forms of hand-claps generate shock waves of frequencies ranging from 1-10 kHz. Clapping with cupped hands increases enclosed volume, which causes an additional Helmholtz-type resonance.

However, there is no scientific evidence to suggest that audible sound waves (vibrations that can be heard by the human ear) can destroy a virus or bacteria. Clapping creates audible frequencies (1-10 kHz) that are too low to cause any damage. No amount of resonance will cause clapping hands, even in unison, to achieve additive frequencies comparable to ultrasonic waves in the surrounding air. In addition, sound energy typically dissipates as it travels, and becomes weaker at larger distances.

Based on current evidence, it is clear that the claim that clapping hands in unison will kill viruses and cleanse the air is false.



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Notes:

1. This response was first published on the Indian Scientists' Response to CoViD-19 (ISRC) website.
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Indian Scientists' Response to CoViD-19 (ISRC) is a group of more than 500 Indian scientists, engineers, technologists, doctors, public health researchers, science communicators, journalists and students who voluntarily came together in response to the COVID-19 pandemic. This group can be contacted at indscicov@gmail.com.