

IIT BBS study confirms 6 feet social distance to prevent Covid-19 infection

[komalsingh](#) 6 days ago



Bhubaneswar: IIT Bhubaneswar studies have confirmed and recommended that a social distance of 6 feet from all directions can prevent Covid-19 infection.

Venugopal Arumuru, an assistant professor at the Faculty of Mechanical Sciences (SMS), and his team at IIT Bhubaneswar conducted this study on the effectiveness of various non-standard and standard face masks when sneezing.

Studies have emphasized that protective measures such as face masks and face shields effectively reduce sneezing leaks and reach within 1 to 3 feet. However, the leakage of small droplets cannot be completely stopped. Therefore, social distance is just as important.

This study recommends using elbows or hands to prevent water droplets from leaking, even after wearing a mask during coughing or sneezing. The study found that without protective measures such as face masks, small droplets emitted during sneezing can travel up to 25 feet in 22 seconds in a stagnant environment.

In this Covid-19 situation, this study improves our understanding of the dynamics of small droplets / particles in the turbulence that causes virus transmission. “The results of these visualizations will bring awareness of wearing masks and maintaining social distance to the general public,” the study said.

RV Rajakumar, director of IIT Bhubaneswar, congratulated the team and said the importance of social distance was clearly evident from this study. “These results will not only raise awareness, but will also motivate researchers to innovate in face mask design,” he added.

The peer-reviewed article was selected as a feature article in the Physics of Fluids Journal of the American Physical Society.

According to Almur, a flow visualization study shows how small particles escape from different face masks and move while sneezing. He added that the importance of social distance is visually clear from this study and will educate the general public about the importance of face masks and social distance to prevent Covid-19 infection.

“The simple experimental setup we proposed can be used to test the design of the new face mask. Sneezing is simulated at the nasal exit of a standard mannequin using air and tracer particles. “I will,” said Almur.

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