



Face mask, shield will not stop leakage of smaller droplets: IIT study

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Bhubaneswar: Protective measures like face mask and face shield will not completely stop the leakage of smaller droplets, but can effectively reduce the leak, according to a study conducted by IIT-Bhubaneswar.

The study conducted by Dr Venugopal Arumuru, Assistant Professor, School of Mechanical Science (SMS), and his team on the efficacy of various non-standard and standard face masks under the act of sneezing recommends using the elbow or hand to prevent droplets leakage even after wearing a mask during coughing and sneezing.

The study confirmed that without protective measures like a face mask, the smaller droplets expelled during a sneeze can travel up to 25 feet in 22 seconds in a stagnant environment. The study confirms and also recommends a social distancing of 6 feet from all orientations to prevent transmission of the virus.

IIT sources said in present Covid-19 scenario, the study will improve the understanding of smaller droplets/particles' dynamics in turbulent flows, which causes transmission of the virus.

These visualisation results will bring awareness to wear a mask and maintain social distancing for the general public.

Prof R V Rajakumar, Director, IIT-Bhubaneswar, congratulated the team for conducting such focused studies on present societal relevance.

Prof Rajakumar said, “the faculty and students’ groups of the Institute have worked tirelessly during the Covid-19 pandemic by coming up with technology development and research studies of high societal relevance.

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