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'Facemask not foolproof to prevent Covid'

Social distancing a must: IIT BBSR study

PNS BHUBANESWAR

The IIT Bhubaneswar has conducted a study on the efficacy of face masks in preventing Covid 19 infection under sneezing and its findings have called for redesigning facemasks in such a way that

they effectively prevent infection. Besides, social distancing has been given stressed. The study was conducted by Dr Venugopal Arumuru, Assistant Professor, School of Mechanical Science (SMS], and his team.

It said that the protective measures like facemask and face shield effectively reduce the leakage and reach of the sneeze within 1ft-3ft. However, they do not completely stop the leakage of smaller droplets. Hence, social distancing is equally important.

The study recommends using the elbow or hand to pre-

vent 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 25ft in 22s in a stagnant environment. The study confirms and also recommends a social distancing of 6 ft from all orientations to prevent transmission of Covid-19.

"Our flow visualization study shows how smaller particles escape from the various face mask and how far they travel during sneezing. The importance of social distancing is visually evident from this study, which will educate the general public on the importance of the face mask and social distancing to prevent transmission of Covid- 19," said Dr Venugopal Arumuru.

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

The peer-reviewed article has been selected as a "Featured Article" in Physics of Fluids Journal by the American Physical Society.