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Spitting: droplets, transmission, and infection probability during COVID-19 pandemic KHUSHBOO PANDEY, SAPTARSHI BASU, ROVEN PINTO, Indian Institute of Science, SHASHI PRABHA PANDEY, S-VYASA — The physical phenomenon of spitting is characterized by the act of forcibly ejecting saliva or any other unwanted substances from the buccal cavity (mouth). Spitting in open is universally accepted as unhygienic as germs present in the saliva may cause serious health issues for those who come in the contact with the expelled saliva and droplets. Spitting is very common in India due to cultural usage of tobacco but during this pandemic of COVID-19, spitting in public and open places cast a serious issue towards public health as spread of COVID 19 is predominantly attributed to respiratory droplets. Since, India is a highly populated country there is a greater possibility of people getting infected through inhalation of droplets carrying the virus. Also, coming in contact with settled droplets on surrounding objects and then touching eyes, nose or mouth, can infect other individuals. Here, we present several pertinent aspects of spitting; generation of droplets, consequent settling on nearby surfaces or suspension in air, and their propensity towards fomite formation. We present droplet size distribution curves and their respective probable distance of travel. We also present an infection probability for spitting droplets settled on various common substrates such as glass, paper, and wood by using the unique method of Voronoi tessellation.

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