

Modelling Aerosol Drug Delivery

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Abstract

Modeling the transport and deposition of aerosols in the respiratory tract is a valuable tool to help understand the fundamental principles governing aerosol delivery and how we can use these to develop good products. The types of deposition models are reviewed, and an empirical model discussed. The empirical deposition model is then used to illustrate why respirable particles are between 1 and 5 microns, that ideal particle sizes for nebulizers are different than for inhalers due to differences in breathing patterns, and that aerosols can be targeted at different regions of the airways.