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The clinical relevance of dry powder inhaler performance for drug delivery

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Highlights

- Optimal size of inhaled drug particles for deposition in the airways is 1.5–5 μm
- Particles >5 μm are mainly deposited in the oropharynx by inertial impaction
- Particles <1 μm have a >40% chance of being exhaled, rather than deposited
- Oropharyngeal impaction increases at higher inspiratory flow rates (IFR)
- An optimal inhaler increases its fine particle (<5 μm) output as IFR increases