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## Air Polishing Damaging Particles and PPE Effectiveness against them

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Particles such as bicarbonate, silicon dioxide or glycine, are frequently used in air polishing practice in dentistry. In different forms, their prolonged-use leads to serious consequences in pulmonary and airways, eye and integumentary systems. The aim of this study is to analyze the ability of these particles to spread out through the workspace, and the effectiveness of PPE (personal protection equipment) in protecting the operator against these molecules. Paper patches (25x25mm in size, each square divided into 5x5mm grid, in association with fluorescein) were applied behind PPE of a volunteer, and others placed at different distances from the operating site. Twenty repetitive patches were removed from their position and UV rays treatment revealed the contaminated squares: every patch presented non-negligible tracks, revealing PPE may not be entirely safe to protect the operator against harmful particles. Moreover, the same PPE penetrating particles could spread out and settling through the workspace.

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