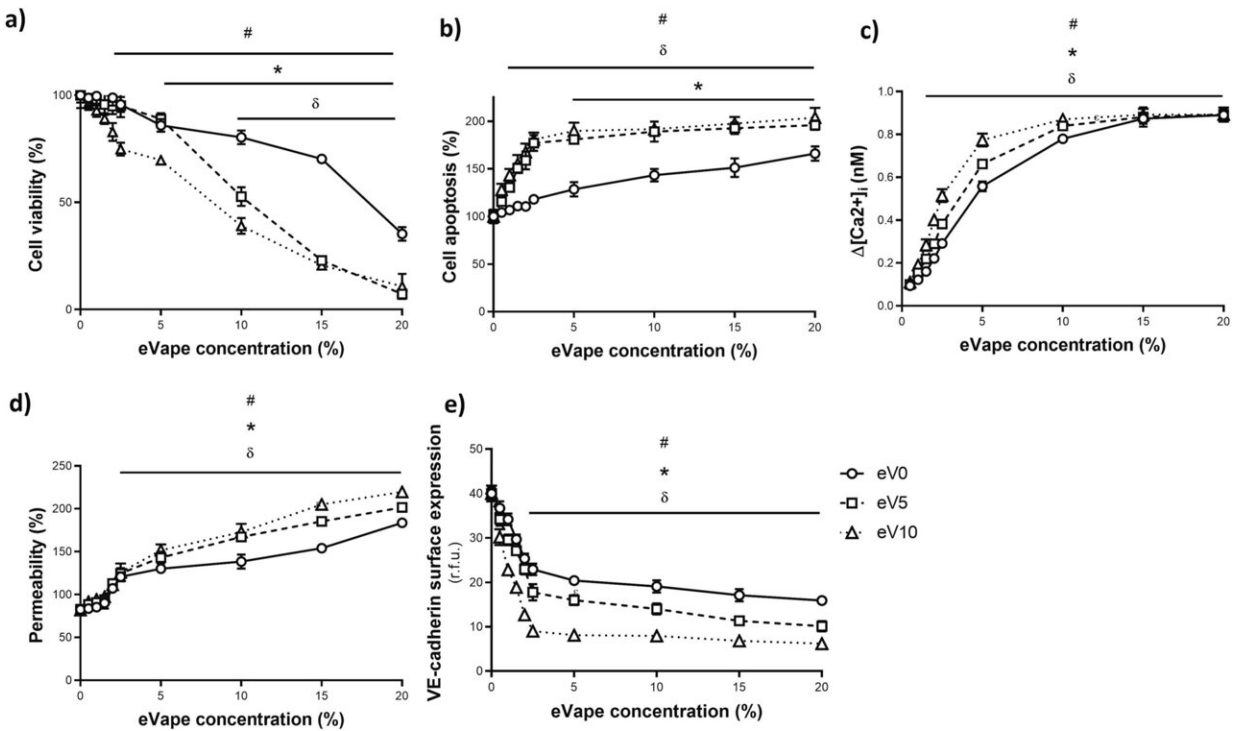


Even nicotine-free vapes can harm the lung, finds study

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eVape fluid exposure causes a significant increase in pulmonary endothelial cell damage and breakdown of monolayer integrity. Lung microvascular endothelial cells were exposed to eVape fluid containing 0 mg/ml (eV0; ○), 5 mg/ml (eV5; □), or 10 mg/ml (eV10; △) nicotine for 24 h at a range of concentrations from 0 to 20 % in sterile distilled water vehicle (0 %). Cell viability (a) and apoptosis (b) were measured using MTT assay and flow cytometry, and intracellular calcium levels (c) were assessed with FURA-2 AM. Monolayer permeability of the pulmonary endothelium (d) and VE-cadherin endothelial surface expression (e) was measured with FITC monolayer flux assay and whole-cell ELISA. Data are presented as mean \pm SEM. n = 5 (b, d), 6 (c, e) and 7 (a). *p

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