

Abstract

Urinary polycyclic aromatic hydrocarbons (PAHs) were evaluated as possible biomarkers of exposure to diesel exhaust (DE) in two controlled-chamber studies. We report levels of 14 **PAHs** from 28 subjects in urine that were collected before, immediately after and the morning after exposure. Using linear mixed-effects models, we tested for effects of DE exposure and several covariates (time, age, gender and **urinary creatinine**) on **urinary PAH** levels. DE exposures did not significantly alter **urinary PAH** levels. We conclude that **urinary PAHs** are not promising biomarkers of short-term exposures to DE in the range of 106-276 $\mu\text{g}/\text{m}^3$.