

Note to readers with disabilities: *EHP* strives to ensure that all journal content is accessible to all readers. However, some figures and Supplemental Material published in *EHP* articles may not conform to [508 standards](#) due to the complexity of the information being presented. If you need assistance accessing journal content, please contact ehp508@niehs.nih.gov. Our staff will work with you to assess and meet your accessibility needs within 3 working days.

Supplemental Material

Leukocyte Traits and Exposure to Ambient Particulate Matter Air Pollution in the Women's Health Initiative and Atherosclerosis Risk in Communities Study

Rahul Gondalia, Katelyn M. Holliday, Antoine Baldassari, Anne E. Justice, James D. Stewart, Duanping Liao, Jeff D. Yanosky, Stephanie M. Engel, Kristina M. Jordahl, Parveen Bhatti, Steve Horvath, Themistocles L. Assimes, James S. Pankow, Ellen W. Demerath, Weihua Guan, Myriam Fornage, Jan Bressler, Kari E. North, Karen N. Conneely, Yun Li, Lifang Hou, Andrea A. Baccarelli, and Eric A. Whitsel

Table of Contents

Table S1. Additional details for populations with estimated leukocyte composition data, Women's Health Initiative (1993-2002) and Atherosclerosis Risk in Communities study (1990-1995).

Table S2. Characteristics of n=8,457 participants with estimated leukocyte composition data before imputation, Women's Health Initiative (1993-2002) and Atherosclerosis Risk in Communities study (1990-1995).

Table S3. Mean (SD) particulate matter concentrations among n=8,457 with estimated leukocyte composition data before imputation, Women's Health Initiative (1993-2002) and Atherosclerosis Risk in Communities study (1990-1995).

Table S4. Pooled difference in leukocyte count (Δ , cell/ μ L) per 10 μ g/m³ increase in 28- and 365-day mean PM₁₀ concentrations among n=165,675 participants, Women's Health Initiative (1993-2002) and Atherosclerosis Risk in Communities study (1986-1998).

Table S5. Pooled difference in estimated leukocyte proportion (Δ , %) per 10 μ g/m³ increase in PM concentrations among n=8,457 participants, Women's Health Initiative (1993-2002) and Atherosclerosis Risk in Communities study (1990-1995).

Table S6. Pooled difference in estimated leukocyte proportion (Δ , %) per 10 μ g/m³ increase in PM concentrations among n=8,457 participants, Women's Health Initiative (1993-2002) and Atherosclerosis Risk in Communities study (1990-1995).

Table S7. Pooled difference in measured leukocyte proportion (Δ , %) per $10 \mu\text{g}/\text{m}^3$ increase in $\text{PM}_{2.5}$ concentrations among $n=8,646$ participants, Atherosclerosis Risk in Communities study (1986-1992).

Table S8. Pooled difference in CD4:CD8 ratio (Δ , %) per $10 \mu\text{g}/\text{m}^3$ increase in PM concentrations among $n=8,457$ participants, Women's Health Initiative (1993-2002) and Atherosclerosis Risk in Communities study (1990-1995).

Figure S1. Diagram of Women's Health Initiative (1993-2002) and Atherosclerosis Risk in Communities study (1986-1998) populations and subpopulations with leukocyte composition data.

Figure S2. Study/center-specific and pooled differences in leukocyte count (Δ , $\text{cell}/\mu\text{L}$) per $10 \mu\text{g}/\text{m}^3$ increase in 1- and 12-month mean concentrations of $\text{PM}_{2.5}$ among $n=165,675$ participants, Women's Health Initiative (1993-2002) and Atherosclerosis Risk in Communities study (1986-1998). The models adjusted for race/ethnicity, age, sex (in ARIC), randomly assigned treatment group (in WHI), mean temperature, mean dew point, mean barometric pressure, season, and a restricted cubic natural spline function of calendar date with one knot per year, individual-level education, neighborhood socioeconomic status, smoking status, alcohol use, body mass index, and physical activity.

Figure S3. Pooled difference in leukocyte count (Δ , $\text{cell}/\mu\text{L}$) per $10 \mu\text{g}/\text{m}^3$ increase in PM among $n=165,675$ participants, Women's Health Initiative (1993-2002) and Atherosclerosis Risk in Communities study (1986-1998). The models adjusted for race/ethnicity, age, sex (in ARIC), randomly assigned treatment group (in WHI), mean temperature, mean dew point, mean barometric pressure, season, individual-level education, neighborhood socioeconomic status, smoking status, alcohol use, body mass index, and physical activity (●), with additional adjustment for a restricted cubic natural spline function of calendar date with 1 knot for every 2 years (▼), 1 knot per year (■), and 2 knots per year (+).

Figure S4. Pooled difference in leukocyte composition (Δ , % point) per $10 \mu\text{g}/\text{m}^3$ increase in A) 2- and B) 7-day mean PM_{10} ; C) 1- and B) 12-month mean PM_{10} ; and E) 1- and F) 12-month mean $\text{PM}_{2.5-10}$ concentrations among $n=8,457$ participants, Women's Health Initiative (1993-2002) and Atherosclerosis Risk in Communities study (1990-1995). Model 1 adjusted for race/ethnicity, age, sex (in ARIC), randomly assigned treatment group (in WHI), mean temperature, mean dew point, mean barometric pressure, season, and subpopulation-specific covariates. Model 2 also adjusted for individual-level education and neighborhood socioeconomic status. Model 3 additionally adjusted for smoking status, alcohol use, body mass index, and physical activity.