Environ Health Perspect

DOI: 10.1289/EHP4431

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 <u>508 standards</u> due to the complexity of the information being presented. If you need assistance accessing journal content, please contact <u>ehp508@niehs.nih.gov</u>. Our staff will work with you to assess and meet your accessibility needs within 3 working days.

Supplemental Material

Profiles of Emerging and Legacy Per-/Polyfluoroalkyl Substances in Matched Serum and Semen Samples: New Implications for Human Semen Quality

Yitao Pan, Qianqian Cui, Jinghua Wang, Nan Sheng, Jun Jing, Bing Yao, and Jiayin Dai

Table of Contents

Competing financial interests

Standards and reagents

Sample extraction

Instrument analysis

Table S1. LC-MS/MS instrument parameters for the quantification of target analytes.

Table S2. Limits of quantitation (LOQs), matrix spike recoveries, and matrix effects (means \pm SD, %) of target PFASs (n = 5).

Table S3. Pearson's correlations between ln-transformed PFAS concentrations in serum (n = 664).

Table S4. Pearson's correlations between ln-transformed PFAS concentrations in semen (n = 664).

Table S5. Estimated means (95% confidence intervals) for PFAS concentration ratios (semen versus serum) with and without imputation.

Table S6. Estimated changes in semen quality parameters associated with both semen- and serum-based PFAS levels (n = 664).

Table S7. Regression coefficients (95% confidence intervals) in semen quality parameters across semen-based PFAS quartiles (n = 664).

Table S8. Regression coefficients (95% confidence intervals) in semen quality parameters across serum-based PFAS quartiles (n = 664).

Figure S1. Regression coefficients and 95% confidence intervals for changes in semen parameters across PFAS quartiles (n = 664). First quartile (Q1) was used as a reference group. Models were adjusted for age, BMI, BMI², smoking, alcohol intake, and abstinence time. Semen volume was ln-transformed, sperm concentration and total sperm count were cubic-root transformed. Curvilinear velocity (VCL), straight-line velocity (VSL), and sperm morphology were included in the regressions untransformed. FDR-adjusted *p*-values were used for trends and are shown in blue (semen PFAS quartiles) and black (serum PFAS quartiles). See Table S7 and S8 for corresponding numerical data.