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| Table S2. Adjustedᵃ associations between individual chemicals and SRS-2 scores, the MIREC study, Canada, 2008-2011 (n = 601). | | | | |
| --- | --- | --- | --- | --- |
| Biomarker Name | Difference in SRS-2 score per one-quartile increase in chemical concentration | | Difference in SRS-2 score per two-fold increase in chemical concentration | |
| β (95% CI)ᵃ | p | β (95% CI)ᵃ | p |
| Metals | | | | |
| Arsenic | -0.1 (-0.5, 0.4) | 0.82 | -0.1 (-0.6, 0.5) | 0.8 |
| Cadmium | 0.1 (-0.4, 0.5) | 0.79 | 0.1 (-0.4, 0.7) | 0.56 |
| Lead | 0.1 (-0.3, 0.6) | 0.58 | 0.4 (-0.3, 1.1) | 0.29 |
| Mercury | -0.2 (-0.7, 0.2) | 0.29 | -0.1 (-0.5, 0.2) | 0.42 |
| Organochlorine pesticides | | | | |
| β-HCH | -0.2 (-0.7, 0.3) | 0.35 | 0.0 (-0.4, 0.4) | 0.98 |
| DDE | 0.0 (-0.5, 0.5) | 0.88 | -0.1 (-0.6, 0.5) | 0.83 |
| Oxychlordane | -0.2 (-0.7, 0.3) | 0.43 | -0.1 (-0.8, 0.6) | 0.74 |
| trans-Nonachlor | -0.1 (-0.6, 0.4) | 0.7 | -0.2 (-0.9, 0.5) | 0.58 |
| Per- and polyfluoroalkyl substances | | | | |
| PFHxS | 0.1 (-0.4, 0.5) | 0.78 | 0.0 (-0.5, 0.4) | 0.93 |
| PFOS | -0.6 (-1.0, -0.1) | 0.01\* | -0.5 (-1.2, 0.1) | 0.12 |
| PFOA | -0.6 (-1.1, -0.1) | 0.01\* | -0.8 (-1.5, -0.2) | 0.01\* |
| Polychlorinated biphenyls | | | | |
| PCB118 | 0.0 (-0.5, 0.4) | 0.85 | 0.0 (-0.6, 0.6) | 0.97 |
| PCB138 | 0.2 (-0.3, 0.6) | 0.5 | 0.2 (-0.3, 0.8) | 0.39 |
| PCB153 | 0.1 (-0.4, 0.6) | 0.67 | 0.2 (-0.3, 0.7) | 0.46 |
| PCB180 | 0.1 (-0.4, 0.6) | 0.73 | 0.2 (-0.3, 0.7) | 0.42 |
| Polybrominated diphenyl ethers | | | | |
| BDE47 | 0.3 (-0.2, 0.7) | 0.23 | 0.1 (-0.3, 0.4) | 0.71 |
| a: Controls for the following variables: child sex, gestational folic acid supplementation, child age at SRS assessment, HOME score, household income, relationship status, maternal education, maternal race, maternal age, parity, smoking status, city of residence, and year of enrollment. Effect estimates are pooled across 10 multiply imputed datasets. Abbreviations: BDE, brominated diphenyl ether; CI; Confidence interval; DDE, Dichlorodiphenyldichloroethylene; HOME, Home Observation for Measurement of the Environment; MIREC, Maternal-Infant Research on Environmental Chemicals Study; PCB, Polychlorinated biphenyl; PFHxS, Perfluorohexanesulfonic acid; PFOA, Perfluorooctanoic acid; PFOS, Perfluorooctanesulfonic acid; SRS-2, Social Responsiveness Scale-2; β-HCH, β-Hexachlorocyclohexane. | | | | |

| Table S3. Adjustedᵃ associations between chemical mixtures and SRS-2 scores using quantile g-computation, including weights, the MIREC study, Canada, 2008-2011 (n = 601). | | | | | |
| --- | --- | --- | --- | --- | --- |
| Mixture name | Metals | OC Pesticides | PFAS | PCBs | All POPs |
| Ψ (95% CI)ᵃ | -0.1 (-0.8, 0.7) | -0.2 (-0.9, 0.4) | -0.6 (-1.2, 0.0) | 0.0 (-0.6, 0.6) | -0.5 (-1.5, 0.4) |
| Biomarker names | Weightsᵇ | | | | |
| Arsenic | -0.19 |  |  |  |  |
| Cadmium | 0.37 |  |  |  |  |
| Lead | 0.63 |  |  |  |  |
| Mercury | -0.81 |  |  |  |  |
| β-HCH |  | -0.5 |  |  | -0.12 |
| DDE |  | 0.7 |  |  | -0.07 |
| Oxychlordane |  | -0.5 |  |  | -0.08 |
| trans-Nonachlor |  | 0.3 |  |  | -0.07 |
| PFHxS |  |  | 1 |  | 0.29 |
| PFOS |  |  | -0.48 |  | -0.22 |
| PFOA |  |  | -0.52 |  | -0.21 |
| PCB118 |  |  |  | -0.57 | -0.08 |
| PCB138 |  |  |  | 0.66 | 0.38 |
| PCB153 |  |  |  | 0.34 | 0.19 |
| PCB180 |  |  |  | -0.43 | -0.15 |
| BDE47 |  |  |  |  | 0.15 |
| a: Controls for the following variables: child sex, gestational folic acid supplementation, child age at SRS assessment, HOME score, household income, relationship status, maternal education, maternal race, maternal age, parity, smoking status, city of residence, and year of enrollment. Effect estimates are pooled across 10 multiply imputed datasets. b: Only the weights from the first MICE imputation, not the pooled weights, are displayed. Abbreviations: BDE, brominated diphenyl ether; CI; Confidence interval; DDE, Dichlorodiphenyldichloroethylene; HOME, Home Observation for Measurement of the Environment; MICE, Multiple imputation by chained equations; MIREC, Maternal-Infant Research on Environmental Chemicals Study; OC, Organochlorine; PCB, Polychlorinated biphenyl; PFAS, Per- and polyfluoroalkyl substances; PFHxS, Perfluorohexanesulfonic acid; PFOA, Perfluorooctanoic acid; PFOS, Perfluorooctanesulfonic acid; POP, Persistent organic pollutant; SRS-2, Social Responsiveness Scale-2; β-HCH, β-Hexachlorocyclohexane. | | | | | |

| Table S4. Adjustedᵃ associations between chemical mixtures and SRS-2 scores using quantile g-computation and assessing modification by child sex, including weights, the MIREC study, Canada, 2008-2011 (n = 601). | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mixture name | Metals | | OC Pesticides | | PFAS | | PCBs | | All POPs | |
| Child sex | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Ψ (95% CI)ᵃ | 0.3 (-0.7,  1.4) | -0.5 (-1.6,  0.6) | -0.4 (-1.3,  0.5) | -0.1 (-1.1,  0.8) | -0.9 (-1.6, -0.1) | -0.4 (-1.2,  0.4) | -0.1 (-0.8,  0.7) | 0.1 (-0.6,  0.9) | -0.6 (-1.9,  0.7) | -0.4 (-1.7,  1.0) |
| Biomarker names | Weightsᵇ | | | | | | | | | |
| Arsenic | 0.45 | -0.31 |  |  |  |  |  |  |  |  |
| Cadmium | -0.55 | 0.19 |  |  |  |  |  |  |  |  |
| Lead | 0.55 | 0.81 |  |  |  |  |  |  |  |  |
| Mercury | -0.45 | -0.69 |  |  |  |  |  |  |  |  |
| β-HCH |  |  | -0.09 | -0.54 |  |  |  |  | 0.06 | -0.1 |
| DDE |  |  | 0.78 | 1 |  |  |  |  | -0.17 | -0.04 |
| Oxychlordane |  |  | 0.22 | -0.24 |  |  |  |  | -0.1 | -0.02 |
| trans-Nonachlor |  |  | -0.91 | -0.22 |  |  |  |  | -0.17 | -0.11 |
| PFHxS |  |  |  |  | -0.59 | 1 |  |  | -0.17 | 0.35 |
| PFOS |  |  |  |  | 1 | -0.62 |  |  | 0.22 | -0.31 |
| PFOA |  |  |  |  | -0.41 | -0.38 |  |  | 0.01 | -0.16 |
| PCB118 |  |  |  |  |  |  | 0 | -0.67 | -0.03 | -0.12 |
| PCB138 |  |  |  |  |  |  | 0.52 | 1 | -0.04 | 0.53 |
| PCB153 |  |  |  |  |  |  | 0.48 | -0.12 | 0.55 | -0.04 |
| PCB180 |  |  |  |  |  |  | -1 | -0.21 | -0.31 | -0.09 |
| BDE47 |  |  |  |  |  |  |  |  | 0.16 | 0.12 |
| a: Controls for the following variables: gestational folic acid supplementation, child age at SRS assessment, HOME score, household income, relationship status, maternal education, maternal race, maternal age, parity, smoking status, city of residence, and year of enrollment. Effect estimates are pooled across 10 multiply imputed datasets. b: Only the weights from the first MICE imputation, not the pooled weights, are displayed. Abbreviations: BDE, brominated diphenyl ether; CI; Confidence interval; DDE, Dichlorodiphenyldichloroethylene; HOME, Home Observation for Measurement of the Environment; MICE, Multiple imputation by chained equations; MIREC, Maternal-Infant Research on Environmental Chemicals Study; OC, Organochlorine; PCB, Polychlorinated biphenyl; PFAS, Per- and polyfluoroalkyl substances; PFHxS, Perfluorohexanesulfonic acid; PFOA, Perfluorooctanoic acid; PFOS, Perfluorooctanesulfonic acid; POP, Persistent organic pollutant; SRS-2, Social Responsiveness Scale-2; β-HCH, β-Hexachlorocyclohexane. | | | | | | | | | | |

| Table S5. Adjustedᵃ associations between chemical mixtures and SRS-2 scores using quantile g-computation and assessing modification by gestational folic acid supplementation, including weights, the MIREC study, Canada, 2008-2011 (n = 601). | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mixture name | Metals | | | OC Pesticides | | | PFAS | | | PCBs | | | All POPs | | |
| FA supplementationᵇ (µg/day) | <400 | 400-1000 | >1000 | <400 | 400-1000 | >1000 | <400 | 400-1000 | >1000 | <400 | 400-1000 | >1000 | <400 | 400-1000 | >1000 |
| Ψ (95% CI)ᵃ | -0.3 (-2.7,  2.0) | -0.6 (-1.4,  0.3) | 1.7 ( 0.1,  3.3) | 0.4 (-1.9,  2.7) | -0.5 (-1.3,  0.2) | 0.3 (-0.9,  1.6) | 0.4 (-1.9,  2.6) | -0.9 (-1.6, -0.2) | -0.2 (-1.3,  0.9) | 1.1 (-0.7,  3.0) | -0.2 (-0.9,  0.4) | 0.3 (-0.7,  1.4) | 2.1 (-2.2,  6.3) | -1.0 (-2.0,  0.1) | 0.0 (-2.1,  2.0) |
| Biomarker names | Weightsᶜ | | | | | | | | | | | | | | |
| Arsenic | 0.45 | -0.31 | 0.11 |  |  |  |  |  |  |  |  |  |  |  |  |
| Cadmium | -0.55 | 0.19 | 0.31 |  |  |  |  |  |  |  |  |  |  |  |  |
| Lead | 0.55 | 0.81 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Mercury | -0.45 | -0.69 | 0.38 |  |  |  |  |  |  |  |  |  |  |  |  |
| β-HCH |  |  |  | -0.09 | -0.54 | 0.01 |  |  |  |  |  |  | 0.06 | -0.1 | -0.02 |
| DDE |  |  |  | 0.78 | 1 | 0.12 |  |  |  |  |  |  | -0.17 | -0.04 | -0.02 |
| Oxychlordane |  |  |  | 0.22 | -0.24 | -1 |  |  |  |  |  |  | -0.1 | -0.02 | -0.21 |
| trans-Nonachlor |  |  |  | -0.91 | -0.22 | 0.87 |  |  |  |  |  |  | -0.17 | -0.11 | 0.24 |
| PFHxS |  |  |  |  |  |  | -0.59 | 1 | 1 |  |  |  | -0.17 | 0.35 | 0.11 |
| PFOS |  |  |  |  |  |  | 1 | -0.62 | -0.46 |  |  |  | 0.22 | -0.31 | -0.13 |
| PFOA |  |  |  |  |  |  | -0.41 | -0.38 | -0.54 |  |  |  | 0.01 | -0.16 | -0.12 |
| PCB118 |  |  |  |  |  |  |  |  |  | 0 | -0.67 | 0.08 | -0.03 | -0.12 | -0.01 |
| PCB138 |  |  |  |  |  |  |  |  |  | 0.52 | 1 | -0.58 | -0.04 | 0.53 | -0.2 |
| PCB153 |  |  |  |  |  |  |  |  |  | 0.48 | -0.12 | 0.92 | 0.55 | -0.04 | 0.6 |
| PCB180 |  |  |  |  |  |  |  |  |  | -1 | -0.21 | -0.42 | -0.31 | -0.09 | -0.29 |
| BDE47 |  |  |  |  |  |  |  |  |  |  |  |  | 0.16 | 0.12 | 0.05 |
| a: Controls for the following variables: child sex, child age at SRS assessment, HOME score, household income, relationship status, maternal education, maternal race, maternal age, parity, smoking status, city of residence, and year of enrollment. Effect estimates are pooled across 10 multiply imputed datasets. b: Folic acid supplementation was primarily measured via a survey conducted at 16 weeks gestation, which queried intake in the past 30 days. We also used data from the 24-hour recall version of this survey and a questionnaire completed at study enrollment (6-13 weeks gestation). c: Only the weights from the first MICE imputation, not the pooled weights, are displayed. Abbreviations: BDE, brominated diphenyl ether; CI; Confidence interval; DDE, Dichlorodiphenyldichloroethylene; HOME, Home Observation for Measurement of the Environment; MICE, Multiple imputation by chained equations; MIREC, Maternal-Infant Research on Environmental Chemicals Study; OC, Organochlorine; PCB, Polychlorinated biphenyl; PFAS, Per- and polyfluoroalkyl substances; PFHxS, Perfluorohexanesulfonic acid; PFOA, Perfluorooctanoic acid; PFOS, Perfluorooctanesulfonic acid; POP, Persistent organic pollutant; SRS-2, Social Responsiveness Scale-2; β-HCH, β-Hexachlorocyclohexane. | | | | | | | | | | | | | | | |

| Table S6. Adjustedᵃ associations between chemical mixtures and SRS-2 scores using quantile g-computation and assessing modification by plasma total folate concentrations, including weights, the MIREC study, Canada, 2008-2011 (n = 601). | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mixture name | Metals | | | OC Pesticides | | | PFAS | | | PCBs | | | All POPs | | |
| Plasma total folate concentrationᵇ | <10ᵗʰ %ile | 10ᵗʰ-80ᵗʰ %ile | >80ᵗʰ %ile | <10ᵗʰ %ile | 10ᵗʰ-80ᵗʰ %ile | >80ᵗʰ %ile | <10ᵗʰ %ile | 10ᵗʰ-80ᵗʰ %ile | >80ᵗʰ %ile | <10ᵗʰ %ile | 10ᵗʰ-80ᵗʰ %ile | >80ᵗʰ %ile | <10ᵗʰ %ile | 10ᵗʰ-80ᵗʰ %ile | >80ᵗʰ %ile |
| Ψ (95% CI)ᵃ | -0.7 (-3.2,  1.8) | -0.3 (-1.2,  0.6) | 1.1 (-0.3,  2.6) | 0.0 (-1.9,  1.9) | -0.3 (-1.0,  0.4) | 0.2 (-1.1,  1.5) | -1.0 (-2.8,  0.8) | -0.5 (-1.2,  0.1) | -1.3 (-2.6,  0.0) | 0.4 (-1.4,  2.1) | 0.0 (-0.7,  0.6) | 0.1 (-1.0,  1.2) | 0.2 (-2.4,  2.9) | -0.5 (-1.6,  0.7) | -1.6 (-4.0,  0.9) |
| Biomarker names | Weightsᶜ | | | | | | | | | | | | | | |
| Arsenic | 0.45 | -0.31 | 0.11 |  |  |  |  |  |  |  |  |  |  |  |  |
| Cadmium | -0.55 | 0.19 | 0.31 |  |  |  |  |  |  |  |  |  |  |  |  |
| Lead | 0.55 | 0.81 | 0.2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Mercury | -0.45 | -0.69 | 0.38 |  |  |  |  |  |  |  |  |  |  |  |  |
| β-HCH |  |  |  | -0.09 | -0.54 | 0.01 |  |  |  |  |  |  | 0.06 | -0.1 | -0.02 |
| DDE |  |  |  | 0.78 | 1 | 0.12 |  |  |  |  |  |  | -0.17 | -0.04 | -0.02 |
| Oxychlordane |  |  |  | 0.22 | -0.24 | -1 |  |  |  |  |  |  | -0.1 | -0.02 | -0.21 |
| trans-Nonachlor |  |  |  | -0.91 | -0.22 | 0.87 |  |  |  |  |  |  | -0.17 | -0.11 | 0.24 |
| PFHxS |  |  |  |  |  |  | -0.59 | 1 | 1 |  |  |  | -0.17 | 0.35 | 0.11 |
| PFOS |  |  |  |  |  |  | 1 | -0.62 | -0.46 |  |  |  | 0.22 | -0.31 | -0.13 |
| PFOA |  |  |  |  |  |  | -0.41 | -0.38 | -0.54 |  |  |  | 0.01 | -0.16 | -0.12 |
| PCB118 |  |  |  |  |  |  |  |  |  | 0 | -0.67 | 0.08 | -0.03 | -0.12 | -0.01 |
| PCB138 |  |  |  |  |  |  |  |  |  | 0.52 | 1 | -0.58 | -0.04 | 0.53 | -0.2 |
| PCB153 |  |  |  |  |  |  |  |  |  | 0.48 | -0.12 | 0.92 | 0.55 | -0.04 | 0.6 |
| PCB180 |  |  |  |  |  |  |  |  |  | -1 | -0.21 | -0.42 | -0.31 | -0.09 | -0.29 |
| BDE47 |  |  |  |  |  |  |  |  |  |  |  |  | 0.16 | 0.12 | 0.05 |
| a: Controls for the following variables: child sex, child age at SRS assessment, HOME score, household income, relationship status, maternal education, maternal race, maternal age, parity, smoking status, city of residence, and year of enrollment. Effect estimates are pooled across 10 multiply imputed datasets. b: The sum of 5-formyl-THF, 5-10-methylene-THF, THF, UMFA, and 5-methyl-THF. c: Only the weights from the first MICE imputation, not the pooled weights, are displayed. Abbreviations: BDE, brominated diphenyl ether; CI; Confidence interval; DDE, Dichlorodiphenyldichloroethylene; HOME, Home Observation for Measurement of the Environment; MICE, Multiple imputation by chained equations; MIREC, Maternal-Infant Research on Environmental Chemicals Study; OC, Organochlorine; PCB, Polychlorinated biphenyl; PFAS, Per- and polyfluoroalkyl substances; PFHxS, Perfluorohexanesulfonic acid; PFOA, Perfluorooctanoic acid; PFOS, Perfluorooctanesulfonic acid; POP, Persistent organic pollutant; THF, Tetrahydrofolate; UMFA, Unmetabolized folic acid; SRS-2, Social Responsiveness Scale-2; β-HCH, β-Hexachlorocyclohexane; %ile, Percentile. | | | | | | | | | | | | | | | |

| Table S7. Adjustedᵃ associations between chemical mixtures and SRS-2 scores using weighted quantile sum regression, including weights, the MIREC study, Canada, 2008-2011 (n = 601). | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mixture name | Metals | | OC Pesticides | | PFAS | | PCBs | | All POPs | |
| Partial effect | (+) | (-) | (+) | (-) | (+) | (-) | (+) | (-) | (+) | (-) |
| β (95% CI)ᵃ | 0.1 (-0.5, 0.7) | 0.3 (-0.5,  1.1) | 0.0 (-0.7, 0.8) | 0.0 (-0.8,  0.8) | -0.3 (-0.9, 0.3) | -0.9 (-1.5, -0.2) | 0.4 (-0.3, 1.0) | 0.4 (-0.2,  1.1) | 0.0 (-0.9, 1.0) | -0.4 (-1.4,  0.6) |
| Biomarker names | Weightsᵇ | | | | | | | | | |
| Arsenic | 0.02 | 0.29 |  |  |  |  |  |  |  |  |
| Cadmium | 0.84 | 0.04 |  |  |  |  |  |  |  |  |
| Lead | 0.13 | 0.18 |  |  |  |  |  |  |  |  |
| Mercury | 0.01 | 0.49 |  |  |  |  |  |  |  |  |
| β-HCH |  |  | 0.23 | 0.38 |  |  |  |  | 0.02 | 0.19 |
| DDE |  |  | 0.26 | 0.23 |  |  |  |  | 0.02 | 0.1 |
| Oxychlordane |  |  | 0.2 | 0.27 |  |  |  |  | 0.02 | 0.09 |
| trans-Nonachlor |  |  | 0.31 | 0.13 |  |  |  |  | 0.02 | 0.04 |
| PFHxS |  |  |  |  | 0.93 | 0 |  |  | 0.35 | 0 |
| PFOS |  |  |  |  | 0 | 0.79 |  |  | 0 | 0.23 |
| PFOA |  |  |  |  | 0.06 | 0.21 |  |  | 0.02 | 0.08 |
| PCB118 |  |  |  |  |  |  | 0.16 | 0.5 | 0.01 | 0.13 |
| PCB138 |  |  |  |  |  |  | 0.03 | 0.27 | 0 | 0.05 |
| PCB153 |  |  |  |  |  |  | 0.45 | 0.03 | 0.04 | 0.01 |
| PCB180 |  |  |  |  |  |  | 0.36 | 0.2 | 0.06 | 0.09 |
| BDE47 |  |  |  |  |  |  |  |  | 0.43 | 0.01 |
| a: Controls for the following variables: child sex, gestational folic acid supplementation, child age at SRS assessment, HOME score, household income, relationship status, maternal education, maternal race, maternal age, parity, smoking status, city of residence, and year of enrollment. Effect estimates are pooled across 10 multiply imputed datasets. b: Weights are averaged across 10 multiply imputed datasets. Abbreviations: BDE, brominated diphenyl ether; CI; Confidence interval; DDE, Dichlorodiphenyldichloroethylene; HOME, Home Observation for Measurement of the Environment; MICE, Multiple imputation by chained equations; MIREC, Maternal-Infant Research on Environmental Chemicals Study; OC, Organochlorine; PCB, Polychlorinated biphenyl; PFAS, Per- and polyfluoroalkyl substances; PFHxS, Perfluorohexanesulfonic acid; PFOA, Perfluorooctanoic acid; PFOS, Perfluorooctanesulfonic acid; POP, Persistent organic pollutant; SRS-2, Social Responsiveness Scale-2; β-HCH, β-Hexachlorocyclohexane. | | | | | | | | | | |

| Table S8. Adjustedᵃ associations between chemical mixtures and SRS-2 scores using quantile g-computation and assessing modification by plasma unmetabolized folic acid concentrations, including weights, the MIREC study, Canada, 2008-2011 (n = 601). | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Mixture name | Metals | | OC Pesticides | | PFAS | | PCBs | | All POPs | |
| Plasma unmetabolized folic acid concentrations | ≤80ᵗʰ %ile | >80ᵗʰ %ile | ≤80ᵗʰ %ile | >80ᵗʰ %ile | ≤80ᵗʰ %ile | >80ᵗʰ %ile | ≤80ᵗʰ %ile | >80ᵗʰ %ile | ≤80ᵗʰ %ile | >80ᵗʰ %ile |
| Ψ (95% CI)ᵃ | -0.3 (-1.2,  0.5) | 0.8 (-0.7,  2.4) | -0.4 (-1.1,  0.3) | 0.6 (-0.7,  2.0) | -0.5 (-1.1,  0.1) | -1.1 (-2.4,  0.1) | -0.1 (-0.7,  0.5) | 0.6 (-0.6,  1.7) | -0.5 (-1.5,  0.6) | -0.5 (-2.8,  1.8) |
| Biomarker names | Weightsᵇ | | | | | | | | | |
| Arsenic | 0.45 | -0.31 |  |  |  |  |  |  |  |  |
| Cadmium | -0.55 | 0.19 |  |  |  |  |  |  |  |  |
| Lead | 0.55 | 0.81 |  |  |  |  |  |  |  |  |
| Mercury | -0.45 | -0.69 |  |  |  |  |  |  |  |  |
| β-HCH |  |  | -0.09 | -0.54 |  |  |  |  | 0.06 | -0.1 |
| DDE |  |  | 0.78 | 1 |  |  |  |  | -0.17 | -0.04 |
| Oxychlordane |  |  | 0.22 | -0.24 |  |  |  |  | -0.1 | -0.02 |
| trans-Nonachlor |  |  | -0.91 | -0.22 |  |  |  |  | -0.17 | -0.11 |
| PFHxS |  |  |  |  | -0.59 | 1 |  |  | -0.17 | 0.35 |
| PFOS |  |  |  |  | 1 | -0.62 |  |  | 0.22 | -0.31 |
| PFOA |  |  |  |  | -0.41 | -0.38 |  |  | 0.01 | -0.16 |
| PCB118 |  |  |  |  |  |  | 0 | -0.67 | -0.03 | -0.12 |
| PCB138 |  |  |  |  |  |  | 0.52 | 1 | -0.04 | 0.53 |
| PCB153 |  |  |  |  |  |  | 0.48 | -0.12 | 0.55 | -0.04 |
| PCB180 |  |  |  |  |  |  | -1 | -0.21 | -0.31 | -0.09 |
| BDE47 |  |  |  |  |  |  |  |  | 0.16 | 0.12 |
| a: Controls for the following variables: child sex, child age at SRS assessment, HOME score, household income, relationship status, maternal education, maternal race, maternal age, parity, smoking status, city of residence, and year of enrollment. Effect estimates are pooled across 10 multiply imputed datasets. b: Only the weights from the first MICE imputation, not the pooled weights, are displayed. Abbreviations: BDE, brominated diphenyl ether; CI; Confidence interval; DDE, Dichlorodiphenyldichloroethylene; HOME, Home Observation for Measurement of the Environment; MICE, Multiple imputation by chained equations; MIREC, Maternal-Infant Research on Environmental Chemicals Study; OC, Organochlorine; PCB, Polychlorinated biphenyl; PFAS, Per- and polyfluoroalkyl substances; PFHxS, Perfluorohexanesulfonic acid; PFOA, Perfluorooctanoic acid; PFOS, Perfluorooctanesulfonic acid; POP, Persistent organic pollutant; SRS-2, Social Responsiveness Scale-2; β-HCH, β-Hexachlorocyclohexane; %ile, Percentile. | | | | | | | | | | |

| Table S9. Adjustedᵃ associations (additionally controlling for gestational fish consumption) between chemical mixtures and SRS-2 scores using quantile g-computation, including weights, the MIREC study, Canada, 2008-2011 (n = 601). | | | | | |
| --- | --- | --- | --- | --- | --- |
| Mixture name | Metals | OC Pesticides | PFAS | PCBs | All POPs |
| Ψ (95% CI)ᵃ | -0.1 (-0.9, 0.7) | -0.2 (-0.9, 0.4) | -0.6 (-1.2, 0.0) | 0.1 (-0.5, 0.7) | -0.5 (-1.4, 0.5) |
| Biomarker names | Weightsᵇ | | | | |
| Arsenic | -0.19 |  |  |  |  |
| Cadmium | 0.38 |  |  |  |  |
| Lead | 0.62 |  |  |  |  |
| Mercury | -0.81 |  |  |  |  |
| β-HCH |  | -0.5 |  |  | -0.12 |
| DDE |  | 0.7 |  |  | -0.07 |
| Oxychlordane |  | -0.5 |  |  | -0.08 |
| trans-Nonachlor |  | 0.3 |  |  | -0.07 |
| PFHxS |  |  | 1 |  | 0.28 |
| PFOS |  |  | -0.48 |  | -0.22 |
| PFOA |  |  | -0.52 |  | -0.22 |
| PCB118 |  |  |  | -0.57 | -0.08 |
| PCB138 |  |  |  | 0.67 | 0.39 |
| PCB153 |  |  |  | 0.33 | 0.19 |
| PCB180 |  |  |  | -0.43 | -0.14 |
| BDE47 |  |  |  |  | 0.14 |
| a: Controls for the following variables: gestational fish consumption, child sex, gestational folic acid supplementation, child age at SRS assessment, HOME score, household income, relationship status, maternal education, maternal race, maternal age, parity, smoking status, city of residence, and year of enrollment. Effect estimates are pooled across 10 multiply imputed datasets. b: Only the weights from the first MICE imputation, not the pooled weights, are displayed. Abbreviations: BDE, brominated diphenyl ether; CI; Confidence interval; DDE, Dichlorodiphenyldichloroethylene; HOME, Home Observation for Measurement of the Environment; MICE, Multiple imputation by chained equations; MIREC, Maternal-Infant Research on Environmental Chemicals Study; OC, Organochlorine; PCB, Polychlorinated biphenyl; PFAS, Per- and polyfluoroalkyl substances; PFHxS, Perfluorohexanesulfonic acid; PFOA, Perfluorooctanoic acid; PFOS, Perfluorooctanesulfonic acid; POP, Persistent organic pollutant; SRS-2, Social Responsiveness Scale-2; β-HCH, β-Hexachlorocyclohexane. | | | | | |