|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 5: Included epidemiological publication of autism and metals in air pollution** | | | | |
| **Author (year)** | **Population** | **ASD measurement** | **Metals** | **Results** |
|  |  |  |  |  |
| Dickerson et al. (2016) | 2,489 census tracts  In the USA  Age 8 years | DSM-IV | As  Pb | PR (95% CI): 0.86 (0.67-1.11) for highest vs. lowest quartile As  PR (95% CI): 1.36 (1.18-1.57) for highest vs. lowest quartile Pb |
|  |  |  |  |  |
| Talbott et al. (2015) | Cases: 217  Controls: 226  In Pennsylvania, USA  Age not specified | SCQ and previous diagnosis | As  Cd  Cr  Pb  Mn  Ni | OR (95% CI): 1.28 (0.71-2.28) for highest vs. lowest quartile As  OR (95% CI): 0.93 (0.53-1.63) for highest vs. lowest quartile Cd  OR (95% CI): 1.52 (0.87-2.66) for highest vs. lowest quartile Cr  OR (95% CI): 1.10 (0.63-1.94) for highest vs. lowest quartile Pb  OR (95% CI): 1.10 (0.64-1.90) for highest vs. lowest quartile Mn  OR (95% CI): 0.76 (0.44-1.31) for highest vs. lowest quartile Ni |
|  |  |  |  |  |
| Roberts et al. (2013) \* | Cases: 325  Controls: 22,101  In the USA  Age not specified | Questionnaire | Sb  As  Cd  Cr  Pb  Mn  Ni | OR (95% CI): 1.5 (1.0-2.3) for highest vs. lowest quintile Sb  OR (95% CI): 1.3 (0.9-2.0) for highest vs. lowest quintile As  OR (95% CI): 1.5 (1.0-2.1) for highest vs. lowest quintile Cd  OR (95% CI): 1.4 (0.9-2.0) for highest vs. lowest quintile Cr  OR (95% CI): 1.6 (1.1-2.3) for highest vs. lowest quintile Pb  OR (95% CI): 1.5 (1.1-2.2) for highest vs. lowest quintile Mn  OR (95% CI): 1.7 (1.1-2.5) for highest vs. lowest quintile Ni |
|  |  |  |  |  |
| Kalkbrenner et al. (2010) \* | Cases: 374  Controls: 2,803  In North Carolina and West Virginia, USA  Age 8 years | DSM-IV | As  Be  Cd  Cr  Pb  Mn  Ni | OR (95% CI): 1.0 (0.8-1.3) for 80th vs. 20th percentile As  OR (95% CI): 0.9 (0.4-2.1) for 80th vs. 20th percentile Be  OR (95% CI): 1.1 (0.6-2.0) for 80th vs. 20th percentile Cd  OR (95% CI): 1.2 (0.6-2.5) for 80th vs. 20th percentile Cr  OR (95% CI): 0.7 (0.4-1.1) for 80th vs. 20th percentile Pb  OR (95% CI): 1.2 (0.7-1.5) for 80th vs. 20th percentile Mn  OR (95% CI): 1.1 (0.6-1.9) for 80th vs. 20th percentile Ni |
| Al = Aluminum; Sb = Antimony; Be = Beryllium; Cd = Cadmium; Cr = Chromium; Pb = Lead; Mn = Manganese; Ni = Nickle  PR = Prevalence ratio, OR = Odds ratio; CI = Confidence Interval  \* Study assessed sex differences | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 5** (continued) | | | | |
| **Author (year)** | **Population** | **ASD measurement** | **Metals** | **Results** |
| Lewandowski et al. (2009) | Cases: 7,022  Controls: 4,050,690  In Texas, USA  Age 5-6 years | Education designation | Sb  Pb  Mn  Ni | RR (95% CI): 1.95 (0.89-4.25) for Sb  RR (95% CI): 1.04 (0.97-1.11) for Pb  RR (95% CI): 1.16 (0.97-1.37) for Mn  RR (95% CI): 1.71 (1.12-2.60) for Ni |
|  |  |  |  |  |
| Windham et al. (2006) | Cases: 284  Controls: 657  In California, USA  Age not specified | Previous diagnosis, education designation, or DSM-IV | As  Cd  Cr  Pb  Mn  Ni | OR (95% CI): 1.28 (0.90-1.81) for highest quartile vs. lower two quartiles of As  OR (95% CI): 1.54 (1.08-2.20) for highest quartile vs. lower two quartiles of Cd  OR (95% CI): 1.12 (0.79-1.58) for highest quartile vs. lower two quartiles of Cr  OR (95% CI): 1.07 (0.76-1.51) for highest quartile vs. lower two quartiles of Pb  OR (95% CI): 1.08 (0.75-1.59) for highest quartile vs. lower two quartiles of Mn  OR (95% CI): 1.46 (1.04-2.06) for highest quartile vs. lower two quartiles or Ni |
| Al = Aluminum; Sb = Antimony; Be = Beryllium; Cd = Cadmium; Cr = Chromium; Pb = Lead; Mn = Manganese; Ni = Nickle  RR = Relative risk, OR = Odds ratio; CI = Confidence Interval | | | | |