**Supplemental Table 1**. Risk of bias questions used in the present study. SR = systematic review.

|  |  |
| --- | --- |
| Risk of bias item | Question |
| 1 | Was administered dose or exposure level adequately randomized? (animal SR only) |
| 2 | Was allocation to study groups adequately concealed? (animal SR only) |
| 3 | Did selection of study participants result in the appropriate comparison groups? (human SR only) |
| 4 | Did study design or analysis account for important confounding and modifying variables? (human SR only) |
| 5 | Were experimental conditions identical across study groups? (animal SR only) |
| 6 | Were the research personnel blinded to the study group during the study? (animal SR only) |
| 7 | Were outcome data complete without attrition or exclusion from analysis? (both SRs) |
| 8 | Can we be confident in the exposure characterization? (both SRs) |
| 9 | Can we be confident in the outcome assessment? (both SRs) |
| 10 | Were all measured outcomes reported? (both SRs) |
| 11 | Was litter or litter effects considered appropriately in the statistical analyses and were there no other potential threats to internal validity? (animal SR only) |
| 12 | Were there no other potential threats to internal validity? (human SR only) |

**Supplemental Table 2.** Sensitivity analyses performed by leaving one study out at a time, using alternative exposure and outcome measures for each study one at a time, and restricting analyses to use the same exposure measure (sumDEHP or MEHP) and/or the same outcome Measure (AGD [as] or AGD [ap]).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Analysis** | **Estimate, mm** | **CI, Lower Bound** | **CI, Upper Bound** | **P value** | **P value for Heterogeneity** | **I2** |
| **Primary Analysis** | -4.07 | -6.49 | -1.66 | 0.001 | 0.876 | 0.0 |
| w/o Bornehag et al. 2015 | -4.25 | -6.83 | -1.68 | 0.001 | 0.786 | 0.0 |
| w/o Bustamante-Montes et al. 2013 | -4.31 | -6.79 | -1.82 | 0.001 | 0.886 | 0.0 |
| w/o Jensen et al. 2016.0 | -4.35 | -7.03 | -1.66 | 0.002 | 0.800 | 0.0 |
| w/o Swan 2008.0 | -3.59 | -6.58 | -0.60 | 0.019 | 0.820 | 0.0 |
| w/o Swan et al. 2015.0 | -3.68 | -6.52 | -0.85 | 0.011 | 0.814 | 0.0 |
| **Using Alternate Estimates** |  |  |  |  |  |  |
| Bornehag et al. 2015.1 | -4.07 | -6.43 | -1.71 | 0.001 | 0.881 | 0.0 |
| Bornehag et al. 2015.2 | -3.93 | -6.33 | -1.53 | 0.001 | 0.826 | 0.0 |
| Bornehag et al. 2015.3 | -4.09 | -6.49 | -1.69 | 0.001 | 0.881 | 0.0 |
| Bornehag et al. 2015.4 | -3.99 | -6.39 | -1.58 | 0.001 | 0.847 | 0.0 |
| Bornehag et al. 2015.5 | -3.44 | -5.56 | -1.31 | 0.002 | 0.686 | 0.0 |
| Bornehag et al. 2015.6 | -3.44 | -5.46 | -1.41 | 0.001 | 0.723 | 0.0 |
| Bornehag et al. 2015.7 | -3.32 | -5.41 | -1.23 | 0.002 | 0.639 | 0.0 |
| Bornehag et al. 2015.8 | -3.44 | -5.55 | -1.34 | 0.001 | 0.699 | 0.0 |
| Bornehag et al. 2015.9 | -3.13 | -5.37 | -0.90 | 0.006 | 0.503 | 8.4 |
| Bustamante-Montes et al. 2013 | -3.46 | -5.66 | -1.27 | 0.002 | 0.620 | 0.0 |
| Jensen et al. 2016.1 | -3.06 | -5.36 | -0.76 | 0.009 | 0.494 | 14.5 |
| Swan 2008.1 | -4.78 | -7.24 | -2.32 | 0.000 | 0.590 | 0.0 |
| Swan 2008.2 | -4.66 | -7.15 | -2.17 | 0.000 | 0.640 | 0.0 |
| Martino-Andrade et al. 2016.1 | -3.16 | -5.74 | -0.58 | 0.017 | 0.787 | 0.0 |
| Martino-Andrade et al. 2016.2 | -3.35 | -5.91 | -0.79 | 0.010 | 0.872 | 0.0 |
| Martino-Andrade et al. 2016.3 | -2.93 | -5.48 | -0.39 | 0.024 | 0.673 | 0.0 |
| Martino-Andrade et al. 2016.4 | -2.92 | -5.44 | -0.41 | 0.023 | 0.689 | 0.0 |
| Martino-Andrade et al. 2016.5 | -3.20 | -5.79 | -0.61 | 0.015 | 0.804 | 0.0 |
| Martino-Andrade et al. 2016.6 | -1.68 | -5.07 | 1.70 | 0.330 | 0.113 | 47.6 |
| Martino-Andrade et al. 2016.7 | -2.16 | -4.94 | 0.61 | 0.127 | 0.367 | 26.8 |
| Martino-Andrade et al. 2016.8 | -1.51 | -5.08 | 2.06 | 0.406 | 0.055 | 54.3 |
| Martino-Andrade et al. 2016.9 | -1.64 | -5.01 | 1.74 | 0.341 | 0.086 | 50.3 |
| Martino-Andrade et al. 2016.11 | -2.69 | -5.39 | 0.00 | 0.050 | 0.493 | 5.7 |
| Martino-Andrade et al. 2016.12 | -2.60 | -5.33 | 0.13 | 0.062 | 0.484 | 9.0 |
| Martino-Andrade et al. 2016.13 | -2.53 | -5.30 | 0.24 | 0.073 | 0.463 | 11.9 |
| Martino-Andrade et al. 2016.14 | -2.55 | -5.28 | 0.18 | 0.067 | 0.481 | 10.8 |
| Martino-Andrade et al. 2016.15 | -2.91 | -5.51 | -0.32 | 0.028 | 0.612 | 0.0 |
| Martino-Andrade et al. 2016.16 | -2.66 | -4.97 | -0.35 | 0.024 | 0.658 | 0.0 |
| Martino-Andrade et al. 2016.17 | -2.76 | -5.02 | -0.51 | 0.016 | 0.727 | 0.0 |
| Martino-Andrade et al. 2016.18 | -2.35 | -4.89 | 0.19 | 0.070 | 0.498 | 16.7 |
| Martino-Andrade et al. 2016.19 | -2.38 | -4.86 | 0.09 | 0.059 | 0.527 | 14.5 |
| Martino-Andrade et al. 2016.20 | -2.82 | -5.14 | -0.51 | 0.017 | 0.734 | 0.0 |
| Swan et al. 2015.21 | -3.95 | -6.30 | -1.59 | 0.001 | 0.901 | 0.0 |
| Swan et al. 2015.22 | -4.33 | -6.69 | -1.97 | 0.000 | 0.810 | 0.0 |
| Swan et al. 2015.23 | -4.17 | -6.50 | -1.84 | 0.000 | 0.862 | 0.0 |
| Swan et al. 2015.24 | -3.75 | -6.17 | -1.33 | 0.002 | 0.916 | 0.0 |
| Swan et al. 2015.25 | -3.17 | -5.12 | -1.23 | 0.001 | 0.881 | 0.0 |
| Swan et al. 2015.26 | -2.97 | -4.81 | -1.12 | 0.002 | 0.848 | 0.0 |
| Swan et al. 2015.27 | -3.42 | -5.30 | -1.55 | 0.000 | 0.909 | 0.0 |
| Swan et al. 2015.28 | -3.26 | -5.08 | -1.44 | 0.000 | 0.895 |  |
| Swan et al. 2015.29 | -2.73 | -4.69 | -0.78 | 0.006 | 0.778 | 0.0 |
| **Additional Analysis** |  |  |  |  |  |  |
| Only sumDEHP | -3.91 | -7.04 | -0.78 | 0.014 | 0.787 | 0.0 |
| Only AGD (as) | -3.59 | -6.58 | -0.60 | 0.019 | 0.820 | 0.0 |
| Only MEHP | -4.17 | -6.71 | -1.62 | 0.001 | 0.833 | 0.0 |
| Only AGD (ap) | -2.23 | -3.78 | -0.68 | 0.005 | 0.560 | 0.0 |
| Only AGD (as) and sumDEHP | -3.91 | -7.04 | -0.78 | 0.014 | 0.787 | 0.0 |
| Only AGD (ap) and sumDEHP | -1.96 | -3.75 | -0.17 | 0.032 | 0.730 | 0.0 |
| Only AGD (as) and MEHP | -3.65 | -6.90 | -0.40 | 0.028 | 0.734 | 0.0 |
| Only AGD (ap) and MEHP | -2.53 | -4.18 | -0.88 | 0.003 | 0.536 | 0.0 |