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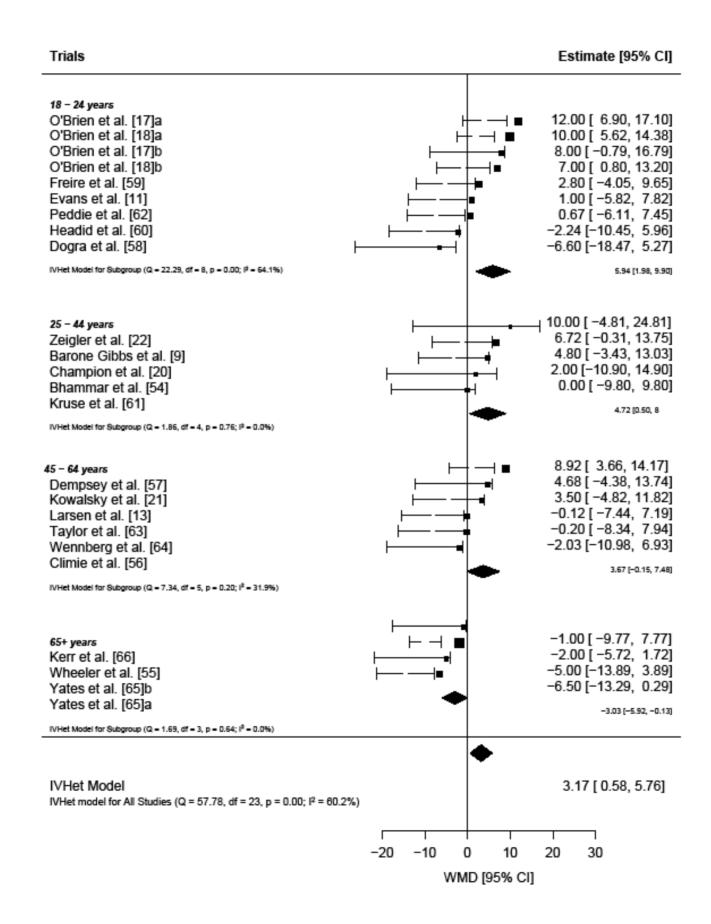
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Appendix 1 Key words for literature search

Full list of keywords: (sitting OR prolonged sitting OR sedentary OR sedentary behaviour) AND (blood pressure OR flow-mediated dilation OR cardiometabolic risk OR cardiovascular OR hemodynamic OR pulse wave velocity OR vascular OR arterial stiffness OR heart rate OR hypertension OR endothelial function OR blood flow OR metabolic OR lipids OR cholesterol OR triglycerides OR glucose OR insulin)

Appendix 2 Forest plot for meta-analysis of the effect of uninterrupted sitting on systolic blood pressure



Appendix 3 Forest plot for meta-analysis of the effect of uninterrupted sitting on diastolic blood pressure

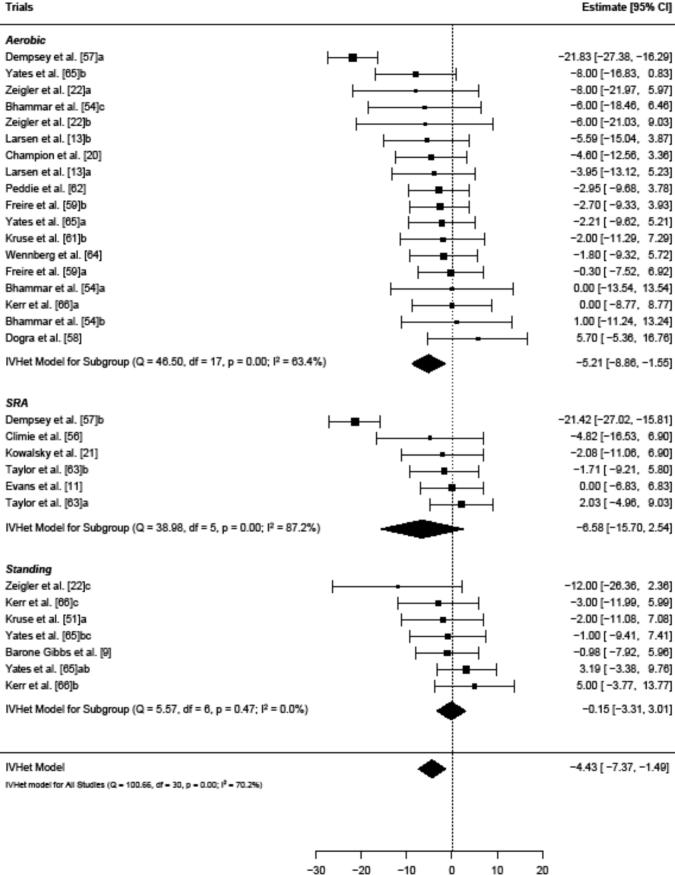
| Trials | | Estimate [95% CI] |
|--|----------------------------------|-----------------------|
| Dempsey et al. [57] | | 5.12 [0.85, 9.40] |
| O'Brien et al. [18]a | ┞╼╌┤ | 5.00 [-0.71, 10.71] |
| O'Brien et al. [18]b | ┝┼╼╌┤ | 4.00 [-2.14, 10.14] |
| Headid et al. [60] | ╟╼╌┤ | 2.83 [-0.91, 6.58] |
| Larsen et al. [13] | ⊢┼╸╌┤ | 2.59 [-4.40, 9.58] |
| Barone Gibbs et al. [9] | ⊢┼╸╌┤ | 2.14 [-3.86, 8.14] |
| Evans et al. [11] | ⊢₋₊ | 2.00 [-3.58, 7.58] |
| Zeigler et al. [22] | ⊢ + | 2.00 [-8.21, 12.21] |
| Freire et al. [59] | ⊢∔∎⊸≀ | 1.60 [-2.96, 6.16] |
| Champion et al. [20] | ⊢ – – 1 | 0.74 [-5.03, 6.51] |
| Kowalsky et al. [21] | ⊢_ ⊢ | 0.46 [-6.03, 6.96] |
| Kruse et al. [61] | ⊢ ∔ - 1 | 0.00 [-7.07, 7.07] |
| Peddie et al. [62] | | -0.57 [-6.55, 5.41] |
| Wheeler et al. [55] | ⊦ ⊨ ⊣ | -1.05 [-3.43, 1.33] |
| Dogra et al. [58] | ⊢ ∎ ╡ 1 | -2.60 [-8.43, 3.23] |
| Climie et al. [56] | ⊢ | -2.79 [-10.38, 4.80] |
| Bhammar et al. [54] | ⊢ | -3.00 [-14.32, 8.32] |
| Wennberg et al. [64] | ⊢∎∔≀ | -3.10 [-8.63, 2.43] |
| Taylor et al. [63] | ⊢∎╢ | -3.58 [-8.08, 0.91] |
| Kerr et al. [66] | ⊢−∙┼┤ | -3.89 [-12.49, 4.72] |
| O'Brien et al. [17]b | ⊢−∎−┤ | -5.00 [-12.07, 2.07] |
| O'Brien et al. [17]a | ┝━━━┥ | -7.00 [-13.47, -0.53] |
| IVHet Model | • | 0.13 [-1.30, 1.58] |
| IVHet model for All Studies (Q = 57.78, df = 23, p = 0.00; l ² = 60.2%) | | |
| | -15 -5 0 5 10 15 WMD [95% Cl] | |

Appendix 4 Forest plot for meta-analysis of the effect of uninterrupted sitting on mean arterial pressure

Trials Estimate [95% CI] 18 - 24 years O'Brien et al. [17]a 9.00 [3.90, 14.10] Garten et al. [12]b 6.00 [0.12, 11.88] 6.00 [-1.07, 13.07] O'Brien et al. [17]b O'Brien et al. [18]a 6.00 [1.53, 10.47] O'Brien et al. [18]b 5.00 [1.03, 8.97] Morishima et al. [15]a 4.00 [-0.84, 8.84] Morishima et al. [16] 4.00 [-1.54, 9.54] 3.00 [-2.22, 8.22] Decker et al. [71]a Morishima et al. [15]b 3.00 [-4.45, 10.45] Freire et al. [59] 2.00 [-2.87, 6.87] Vranish et al. [19]a 2.00 [-3.54, 7.54] 2.00 [-3.54, 7.54] Vranish et al. [19]b Evans et al. [11] 1.00 [-5.20, 7.20] Headid et al. [60] -0.70 [-4.91, 3.51] Ballard et al. [72] -1.70 [-9.19, 5.79] IVHet Model for Subgroup (Q = 15.13, df = 14, p = 0.37; l² = 7.5%) 3.71 [2.31, 5.10] 25 - 44 years Morishima et al. [14] 6.00 [0.46, 11.54] Decker et al. [71]b 5.00 [0.91, 9.09] Barone Gibbs et al. [9] 3.67 [-2.05, 9.39] Garten et al. [12]a 3.00 [-2.88, 8.88] Charlett et al. [69] 1.56 [-4.86, 7.99] Carter et al. [10] 1.00 [-6.36, 8.36] Bhammar et al. [54] 0.00 [-10.88, 10.88] Credeur et al. [68] -1.00 [-8.07, 6.07] -3.00 [-11.11, 5.11] Carter et al. [67] IVHet Model for Subgroup (Q = 4.88, df = 8, p = 0.77; l² = 0.0%) 2.30 (0.15, 4.46) 45 - 64 years Larsen et al. [13] 1.24 [-7.36, 9.84] IVHet Model for Subgroup (Q = 0.00, df = 0, p = 1.00; l² = 0.0%) 1.24 [-7.36, 9.84] 65+ years Hartmann et al. [70] 3.00 [-2.54, 8.54] IVHet Model for Subgroup (Q = 0.00, df = 0, p = 1.00; l² = 0.0%) 3.00 [-2.54, 8.54] IVHet Model 3.27 [2.17, 4.37] IVHet model for All Studies (Q = 21.42, df = 25, p = 0.67; l² = 0.0%) Г

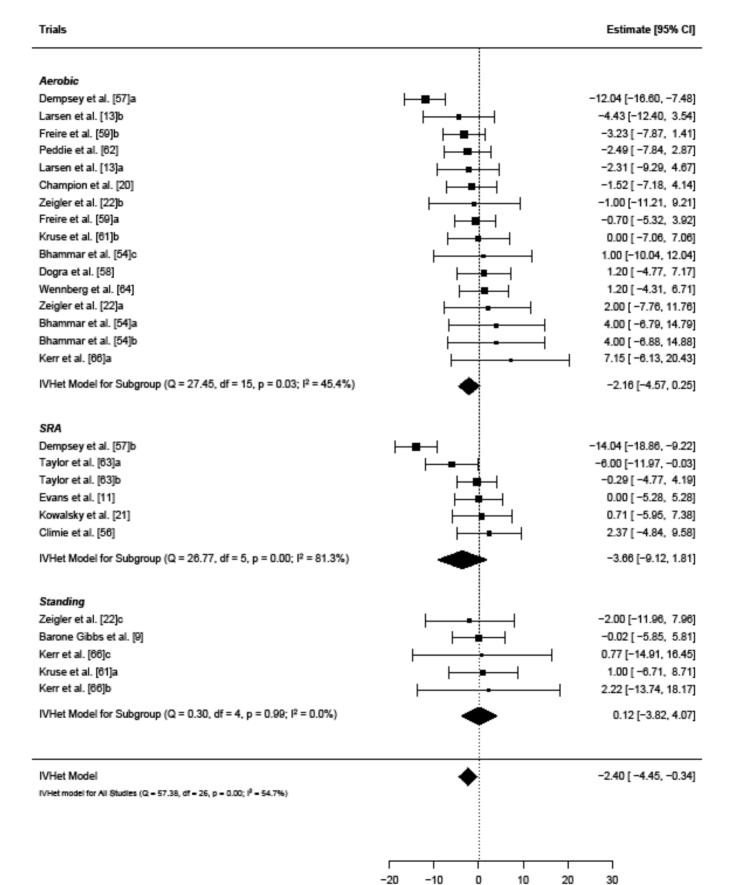
-15 -5 0 5 10 15

WMD [95% CI]



WMD [95% CI]

Estimate [95% CI]



WMD [95% CI]

| | Pooled Effect | | | | | Heterog | Heterogeneity | | Asymmetry | | | |
|------------|---------------|-------|------|---------|-------|---------|---------------|-------|-----------|---------|--------|--------|
| | WMD | LCI | UCI | P Value | SMD | Q | P Value | I^2 | LFK | Quality | Trials | Sample |
| MAP | | | | | | | | | | | | |
| Overall | 3.27 | 2.17 | 4.37 | < 0.001 | 0.37 | 21.4 | 0.67 | 0 | -0.75 | 6 | 26 | 331 |
| Discrete | 2.52 | 1.22 | 3.82 | | 0.29 | 11.9 | 0.86 | 0 | | | 19 | |
| Continuous | 5.18 | 3.10 | 7.26 | | 0.65 | 5.05 | 0.54 | 0 | | | 7 | |
| SBP | | | | | | | | | | | | |
| Overall | 3.17 | 0.58 | 7.76 | 0.016 | 0.14 | 57.4 | < 0.001 | 60 | -0.21 | 8 | 24 | 450 |
| Discrete | 0.72 | -1.47 | 2.92 | | 0.03 | 25.2 | 0.09 | 33 | | | 18 | |
| Continuous | 9.46 | 6.79 | 12.1 | | 1.07 | 3.01 | 0.70 | 0 | | | 6 | |
| DBP | | | | | | | | | | | | |
| Overall | 0.13 | -1.30 | 1.56 | 0.864 | 0.00 | 27.6 | 0.15 | 24 | -0.43 | 8 | 22 | 390 |
| Discrete | 0.17 | -1.14 | 1.47 | | 0.01 | 16.2 | 0.37 | 7 | | | 16 | |
| Continuous | -0.10 | -4.76 | 4.56 | | -0.02 | 11.4 | 0.04 | 56 | | | 6 | |

Appendix 7 Subgroup analysis of mean arterial pressure, systolic, and diastolic blood pressure by assessment type

Abbreviations: WMD, weighted mean difference; LCI, lower confidence interval; UCI, upper confidence interval; SMD, standardised mean difference; LFK, Luis Furuya-Kanamori Index. SMD: Trivial, small, moderate and large effect sizes are defined as <0.2, 0.2, 0.5, and 0.8 respectively. LFK: <1 indicates no asymmetry, 1 to 2 suggests minor asymmetry, and >2 indicates major asymmetry. I2: 25%, 50%, and 75% represent low, moderate, and high heterogeneity respectively.