

## 1.0. All-cause mortality

**Population:** Adults (aged 18-64 years)  
**Exposure:** Duration, frequency and/or intensity of OPA, or a compositional score reflecting total volume of OPA.  
**Comparison:** No OPA, or a lesser duration, frequency and/or intensity, no or a smaller compositional score of total volume of OPA.  
**Outcome:** All-cause mortality.

Certainty assessment							Summary of findings	Certainty	Importance
No of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			

**Domains of physical activity and all-cause mortality: systematic review and dose–response meta-analysis of cohort studies (Samitz, G. 2012)(102)**  
 82412/17069 (no of participants/deaths)

6 <sup>a</sup>	Prospective studies	Serious <sup>c</sup>	Serious <sup>d</sup>	Not serious	Not serious	None	<p>This review compared highest with lowest PA levels in the association with mortality.</p> <p><b>OPA</b>            Associations were found for OPA (RR=0.83; 95% CI 0.71–0.97)            OPA: 4 studies in men; (RR=0.94; 95% CI 0.75-1.19) 90,8% I<sup>2</sup>            OPA: 3 studies in women: (RR=0.66; 95% CI 0.49-0.89) 89% I<sup>2</sup></p> <p><b>LTPA:</b>            The strongest associations between PA and mortality were observed for LTPA (RR 0.74; 95% CI 0.70–0.77),</p>	Low <sup>i</sup>	Critically
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**Do highly physically active workers die early? A systematic review with meta-analysis of data from 193 696 participants. (Coenen, 2018)(103)**

Certainty assessment							Summary of findings	Certainty	Importance
No of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations			
17 <sup>b</sup>	Prospective cohort studies	Serious <sup>e</sup>	Serious <sup>f</sup>	Not serious	Not serious <sup>g</sup>	Some risk of publication bias <sup>h</sup>	<p>This review compared workers with high level of OPA with low level of OPA in association with mortality:</p> <p><b>OPA:</b> Pooled results showed that male workers with high level OPA had a statistically significant higher mortality risk than those engaging in low level OPA (HR 1.18, 95% CI 1.05 to 1.34, I<sup>2</sup> =76%)</p> <p>A non-significant tendency for an inverse association was found among women (HR=0.90; 95% CI 0.80 to 1.01), I<sup>2</sup> =0%).</p> <p><b>LTPA:</b> LTPA not assessed in this review</p>	Low <sup>j</sup>	Critically

a: Eaton 1995; Andersen 2000; Yu 2003; Barengo 2004; Lissner 1996; Besson 2008

b: Petersen 2012; Hu G 2014; Clays 2014; Harari 2015; Richard 2015; Etemadi; 2014; Menotti 2006; Chau 2015; Holtermann 2012; Holtermann 2010; Stender 1993; Wanner 2014; Holtermann 2011; Turi 2017; Huerta 2016; Krause 2017

c: Serious: We can't rule out residual confounding; The assessment of physical activity at baseline only, may also have introduced bias, particularly in studies of longer duration

d: Serious risk of inconsistency: high heterogeneity in the studies. Different results for men and women.

e: Serious: Possible conservative misclassification bias, leading to an underestimation of the magnitude of the association/ Studies included in this review were based only on self-reports of occupational PA

f: Serious risk of inconsistency: there was considerable heterogeneity in our pooled study findings, with up to 77% heterogeneity in the main findings.

g: We decided not to rate down for serious imprecision because the men did not include the 1.0 in their analysis. And the most studies were in the male population.

h: We do not rate down because only some risk is detected: Some risk of publication bias with under-publication of negative and underpowered results.

i: rated down from high to low because of serious risk of bias and serious inconsistency

j: rated down from high to low because of serious risk of bias and serious inconsistency