# Table S1. Search strategies.

**Search strategy in PubMed**

#1 endothelium[Text Word] OR endothelium[Title/Abstract]) OR vascular function[Text Word] OR vascular function[Title/Abstract] OR endothelial[Text Word] OR endothelial[Title/Abstract] OR flow-mediated dilation[Text Word] OR flow-mediated dilation[Title/Abstract] OR flow mediated dilation[Text Word] OR flow mediated dilation[Title/Abstract] OR endothelial function[Text Word] OR endothelial function[Title/Abstract] OR FMD[Text Word] OR FMD[Title/Abstract] OR artery blood flow[Text Word] OR artery blood flow[Title/Abstract]

#2 exercise[Title/Abstract] OR exercise[Text Word] OR training[Title/Abstract] OR training[Text Word] OR physical activity[Title/Abstract] OR physical activity[Text Word] OR sport\*[Title/Abstract] OR sport\*[Text Word]

#3 diabet\*[Text Word] OR diabet\*[Title/Abstract] OR diabetes mellitus, type 2[MeSH Terms]

#4 #1 AND #2 AND #3

#5 #4 Filters: English, published up to January 12nd, 2018

**Search strategy in the Cochrane Central Register of Controlled Trials**

#1 endothelium[Title/Abstract/Key Word] OR vascular function[Title/Abstract/Key Word] OR endothelial[Title/Abstract/Key Word] OR flow-mediated dilation[Title/Abstract/Key Word] OR flow mediated dilation[Title/Abstract/Key Word] OR endothelial function[Title/Abstract/Key Word] OR FMD[Title/Abstract/Key Word] OR artery blood flow[Title/Abstract/Key Word]

#2 exercise[Title/Abstract/Key Word] OR physical activity[Title/Abstract/Key Word] OR sport\*[Title/Abstract/Key Word]

#3 diabet\* [Title/Abstract/Key Word] diabetes mellitus, type 2 [MeSH Terms]

#4 #1 AND #2 AND #3

#5 #4 Filters: published up to January 12nd, 2018 (by hand)

**Search strategy in Web of Science**

#1 endothelium[Topic] OR vascular function[Topic] OR endothelial[Topic] OR flow-mediated dilation[Topic] OR flow mediated dilation[Topic] OR endothelial function[Topic] OR FMD[Topic] OR artery blood flow[Topic]

#2 exercise[Topic] OR physical activity[Topic] OR sport\*[Topic] OR training[Topic]

#3 diabet\*[Topic]

#4 #1 AND #2 AND #3

#5 #4 Filters: References Types (article or other or clinical trial or review); published up to January 12nd, 2018 (by hand)

# Table S2. Quality assessment.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Author, year | Random sequence generation | Allocation concealment | Blinding of participants and personnela | Blinding of outcome assessmentb | Incomplete outcome data addressed | Selective reporting |
| Choi *et al.* 2012 | Low | Unclear  | Low | Low | High | Low |
| Kwon *et al.* 2011c | Unclear | Unclear | Low | Low | Low | Low |
| Mitranun *et al.* 2014c  | Unclear | Unclear | Low | Low | Low | Low |
| Wycherley *et al.* 2008 | Unclear | Unclear | Low | Low | High | Low |
| Hollekim-Strand *et al.* 2014 | Low | Unclear | Low | Low | High | Low |
| Gibbs *et al.* 2012 | Unclear | Unclear | Low | Low | Low | Low |
| Maiorana *et al.* 2001 | Unclear | Unclear | Low | Low | Low | Low |
| Naylor *et al.* 2016 | Low | Unclear | Low | Low | Low | Low |
| Okada *et al.* 2010 | Low | Unclear | Low | Low | Low | Low |
| Allen *et al.* 2014 | NA | Unclear | Low | Low | Low | Low |
| Madsen *et al.* 2015 | NA | Unclear | Low | Low | Low | Low |
| Schreuder *et al.* 2015 | NA | Unclear | Low | Low | Low | Low |

a Because these studies were aimed to investigate the effects of exercise training, complete blinding of participants and personnel is impossible and unnecessary.

b The outcome assessment for flow-mediated dilation is objective, which is not likely to be affected by lacking of blinding.

c Both studies allowed for 3 independent comparisons for each.