**Potentially relevant citations** identified and screened for retrieval
n = 4,463
*All retrieved from electronic databases*

**Citations excluded** based on abstract and title review n = 4,170
Reasons: duplicate retrieval, missing either a direct or indirect measure of physical activity, population mean age under 18 years, or not relevant

**Full text of studies retrieved** for more detailed evaluation n = 296

**Studies excluded** n = 123
Reasons: no direct measure n=4, no indirect measure n=6, review article n=1, non-comparable data or no comparison conducted n=84, non-English n=6, duplicate data n=7, duplicate titles n=2, results not reported n=7, not relevant n=3, unable to obtain n =1, abstract only n=2

**Relevant citations** for inclusion n = 173
Correlation data n = 148
Accelerometer n = 47
Doubly labeled water n = 21
Heart Rate monitor n = 12
Pedometer n = 4
Indirect calirometry n = 2
*Individual study data may be counted multiple times*