Online Resource 3: Limited Search Update

Correlates and determinants of cardiorespiratory fitness in adults: a systematic review

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Table OR3.1 Results summary: search update

Author (Date) [Reference]	Country	Study design	Sample-size	% female	Age range/ mean age (in years)	CRF test	Results	
Chen et al. (2017) [159]	US	cross-sectional	3,292	48%	40-49	submaximal treadmill test	**Men[1]** Ethnicity: **+/0/-[2]** Diabetes: **-** (obese) Homocysteine: **-** (normal weight, overweight) Total cholesterol: **0** (normal weight) / **-** (overweight) Vitamin B12: **-** (obese) Smoking: **+** (overweight)	**Women[1]** Ethnicity: **+/0/-[3]** Diabetes: **+** (normal) / **0** (overweight) Homocysteine: **-** (normal weight) Folate: **+** (obese) C-reactive protein: **-** (obese) Total cholesterol: **-** (overweight) Hemoglobin: **+** (overweight) / **0** (obese) Vitamin B12: **-** (obese) Smoking: **0** (overweight) Alcohol intake **+** (overweight)
Jackowski et al. (2017) [160]	Canada	longitudinal	61	38%	~47[4]	maximal treadmill test	Biological age: **0** Biological age[2]: **0** Height : **+** Sex: **0** Cardiometabolic risk: **0**	
Knaeps et al. (2018) [161]	Nether-lands	longitudinal	399	36%	56	maximal cycle ergometer test	cardiometabolic risk score: **-** cardiometabolic risk score (no adiposity): **-** Waist circumference: **-** Fasting glucose: **-** HDL cholesterol: **+** Triglycerides : **-** Diastolic blood pressure: **-** Systolic blood pressure: **-**	
Shouval et al. (2017) [162]	Israel	longitudinal	16,334	30%	46	maximal exercise treadmill test	**Men** Anemia (WHO criteria): **0** Age: **-** Body mass index: **-** Lack of physical activity: **-** Hypertension: **-** Estimated glomerular filtration rate: **-** Total cholesterol: **-**	**Women** Anemia (WHO criteria): **-** Age: **-** Body mass index: **-** Lack of physical activity: **-** Hypertension: **-** Estimated glomerular filtration rate: **0** Total cholesterol: **-**

Tripette et al. (2018) [163]	Japan	cross-sectional	867	86%	23-88	maximal ergometer test	**Men** Caffeine consumption: **0**	**Women** Caffeine consumption: **+**
Tsou et al. (2018) [164]	US	cross-sectional	449	45%	20-50	submaximal treadmill test	**Men** Arachidic Acid: **-** Docosanoic Acid: **-** Arachidonic Acid: **-** Docosatetraenoic Acid: **-** Age: **-** Smoking (Y/N): **0** Diastolic blood pressure (mmHg): **-** Body mass index: **0** C-reactive protein: **0** Homeostatic Model Assessment - Insulin Resistance: **0**	**Women** Arachidic Acid: **0** Docosanoic Acid: **0** Arachidonic Acid: **-** Docosatetraenoic Acid: **0** Age: **0** Smoking (Y/N): **0** Diastolic blood pressure (mmHg): **0** Body mass index:**0** C-reactive protein:**0** Homeostatic Model Assessment - Insulin Resistance:**0**
van der Velde et al. (2017) [165]	Nether-lands	cross-sectional	2,024	51%	40-75	submaximal cycle ergometer test	**Men** Sedentary time: **-** Sedentary Breaks (10/d): **0** Average Sedentary Bout Duration (min): **0** Prolonged Sedentary Bouts (n/d): **0**	**Women** Sedentary time: **-** Sedentary Breaks (10/d): **0** Average Sedentary Bout Duration (min): **0** Prolonged Sedentary Bouts (n/d): **0**

+: positive association; −: negative association; 0: null association

[1]In this study results were reported stratified for weight status (normal weight, overweight, obese) and potential correlates were only analysed in the multivariable model, if they showed a significant bivariate association (term in parenthesis indicates the strata).

[2]Negative association (Reference: 'non-Hispanic white') of CRF with 'other Hispanic' and 'other race', no association with, 'non-Hispanic black' and 'Mexican american' among normal weight participants; no association with, 'non-Hispanic black', 'Mexican American', 'other Hispanic' and 'other race' among overweight and obese participants.

[3]Negative association (Reference: 'non-Hispanic white') of CRF with 'non-Hispanic black', no association with 'Mexican American', 'other Hispanic' and 'other race' among normal weight participants; no association with, 'non-Hispanic black', 'Mexican American', 'other Hispanic' and 'other race' among overweight participants; negative association of CRF with 'non-Hispanic black' and 'other race', no association with 'Mexican american' and 'other Hispanic' among obese participants.

[4]Mean age for low CRF group (n=26): 48.62; mean age for high CRF group (n=35): 45.99.