

**Evidence Analysis Library**  
**Nutrition and Physical Activity: General Population Systematic Review**

Summary of Findings Describing the Effect of Nutrition and Physical Activity Interventions Provided by Qualified Practitioners for Adults who have Cardiometabolic Risk

Outcome № of participants (studies)	Anticipated absolute effects (95% CI)	Risk of Bias	Inconsistency	Indirectness	Imprecision	Other	Certainty	What happens
Physical activity amount № of participants: 3339 (13 RCTs)	SMD 0.31 SD higher (0.06 higher to 0.55 higher)	■	■	□	□	□	⊕⊕○○ Low <sup>a,b</sup>	In adults with cardiometabolic risk factors, nutrition and physical activity interventions may increase physical activity amount.
Fruit № of participants: 1839 (9 RCTs)	SMD 0.65 SD higher (0.15 lower to 1.44 higher)	■	■	□	□	□	⊕⊕○○ Low <sup>a,b</sup>	In adults with cardiometabolic risk factors, nutrition and physical activity interventions may result in little to no difference in fruit intake.
Vegetable intake № of participants: 1839 (9 RCTs)	SMD 0.13 SD higher (0.01 higher to 0.26 higher)	■	□	□	□	□	⊕⊕⊕○ Moderate <sup>a</sup>	In adults with cardiometabolic risk, nutrition and physical activity interventions likely increases vegetable intake slightly.
Waist circumference (cm) № of participants: 2776 (18 RCTs)	MD 2.58 cm lower (3.62 lower to 1.53 lower)	■	□	□	□	□	⊕⊕⊕○ Moderate <sup>a</sup>	In adults with cardiometabolic risk factors, nutrition and physical activity interventions likely reduces waist circumference.
Achieving 5% Weight Loss For participants with overweight or obesity № of participants: 1112 (8 RCTs)	RR 2.37 (1.76 to 3.19)	■	□	□	□	□	⊕⊕⊕⊕ High <sup>ab</sup>	In adults with overweight or obesity, nutrition and physical activity interventions results in large increase in achieving 5% weight loss.
Glucose Levels № of participants: 1378 (12 RCTs)	SMD 0.19 SD lower (0.36 lower to 0.01 lower)	■	□	□	□	□	⊕⊕⊕○ Moderate <sup>a</sup>	In adults with cardiometabolic risk factors, nutrition and physical activity interventions likely reduces blood glucose levels.
HbA1c for participants with diabetes risk № of participants: 250 (3 RCTs)	MD 0.01 % lower (0.13 lower to 0.11 higher)	■	□	□	■	□	⊕⊕○○ Low <sup>a,c</sup>	In adults with cardiometabolic risk factors, nutrition and physical activity interventions may result in little to no difference in HbA1c.

Outcome № of participants (studies)	Anticipated absolute effects (95% CI)	Risk of Bias	Inconsistency	Indirectness	Imprecision	Other	Certainty	What happens
Quality of Life № of participants: 295 (3 RCTs)	not pooled	■	■	□	□	□	⊕⊕○○ Low <sup>a,d</sup>	In adults with cardiometabolic risk factors, nutrition and physical activity interventions may increase/reduce anxiety, but evidence was unclear.
Anxiety № of participants: 850 (4 RCTs)	not pooled	■	■	□	□	□	⊕⊕○○ Low <sup>a,d</sup>	In adults with cardiometabolic risk factors, nutrition and physical activity interventions may reduce depression slightly, but evidence was unclear.
Depression № of participants: 807 (4 RCTs)	not pooled	■	■	□	□	□	⊕⊕○○ Low <sup>a,d</sup>	In adults with cardiometabolic risk factors, nutrition and physical activity interventions may improve quality of life slightly, but evidence was unclear.

■ Highlighted squares indicate a statistically significant improvement in the indicated outcome.

CI= confidence interval; MD= mean difference; RCT= randomized controlled trial; RR= relative risk; SD= standard deviation; SMD= standardized mean difference; WC= waist circumference

- a. Some concerns or high risk of bias in some included studies.
- b. I<sup>2</sup>>80%
- c. Small sample sizes
- d. Inconsistency in results between studies.
- e. Large effect size