

**SDC1. Full Search Strategy Used to Identify All Potentially Eligible Exercise Trials and Meta-analyses/Reviews for Our Review.** For each PubMed search, no start dates were applied and filters were initially set for humans and articles published in the English language. As detailed in the searches below, additional filters were activated to identify randomized controlled trials and meta-analyses/reviews.

**Search dates: From Inception – September 17, 2016**

**Search 1. Acute and Chronic Endurance (Aerobic) Exercise**

**Hits= 7,144**

((("acute aerobic exercise"[tiab] OR "aerobic exercise"[tiab] OR "Exercise Therapy"[mh] OR "acute bout"[ti] OR "acute bouts"[ti] OR "aerobic exercise training"[tiab] OR "Aerobic Versus Resistance Exercise"[ti] OR "interval training"[tiab] OR "interval exercise"[tiab] OR "sprint exercise"[tiab] OR "endurance training"[tiab] OR "endurance exercise"[tiab] OR "endurance\*" [ti] OR "exercise/physiology"[majr] OR "Physical Fitness/physiology"[MAJR] OR "Physical Endurance/physiology"[MAJR])

AND ("blood pressure"[tiab] OR "blood pressure"[MeSH Term] OR "systolic\*" [ti] OR "diastolic\*" [ti] OR "hypertension"[ti] OR "hypertension"[MeSH Term] OR "hypotension"[tiab] OR "PEH"[tiab] OR "triglyceride"[tiab] OR "triglyceride"[mesh] OR "glucose"[ti] OR "plasma glucose"[ti] OR "glucose"[mesh] OR "insulin "[ti] OR "plasma insulin"[ti] OR "insulin"[mesh] OR "Lipoprotein"[ti] OR "Lipoproteins"[ti] OR "Lipoproteins"[mesh] OR "blood lipids"[ti] OR "Cholesterol"[ti] OR "Cholesterol"[mesh] OR "Cholesterol\*" [ti] OR "\*"Cholesterol"[ti] OR "low-density\*" [ti] OR "high-density\*" [ti] OR "LDL\*" [ti] OR "HDL\*" [ti])

AND (Adults))

NOT ("editorial"[pt] OR "letter"[pt] OR "observational\*" [pt] OR "case report"[pt] OR "comment"[pt] OR "evaluation\*" [pt] OR "validation\*" [pt] OR "guideline"[pt] OR "practice guideline"[pt] OR "population-referenced"[tiab] OR "ultra-endurance"[tiab] OR "video games"[tiab] OR "video game"[tiab] OR "lactating women"[tiab] "Postprandial"[ti] OR "stroke"[ti] OR "pregnant"[tiab] OR "pregnancy"[tiab] OR "Type 2 diabetes"[ti] OR "diabetes mellitus"[ti] OR "diabetes"[ti] OR "diabetic"[ti] OR "type 1 diabetes"[tiab] OR "type 1 diabetic"[tiab] OR "heart failure"[ti] OR "congestive heart failure"[ti] OR "myocardial infarction"[ti] OR "cerebral hemorrhage"[ti] OR "hemorrhage"[ti] OR "peripheral arterial disease"[ti] OR "down syndrome"[ti] OR "intellectual disability"[tiab] OR "preeclamptic"[tiab] OR "preeclampsia"[tiab] OR "coronary artery disease"[ti] OR claudication[ti] OR "coronary heart disease"[ti] OR "diet"[ti] OR "carbohydrate diets"[ti] OR "HIV"[tiab] OR "multiple sclerosis"[tiab] OR "sickle cell anaemia"[tiab] OR "sickle cell"[tiab] OR "supplementation"[ti] OR "supplements"[ti] OR "supplement"[ti] OR "meal"[ti] OR "meal\*" [ti] OR "protein intake"[ti] OR "carbohydrate intake"[ti] OR "fluid intake"[ti] OR "carbohydrate feedings"[ti] OR "non-alcoholic fatty liver disease"[ti] OR "carbohydrate ingestion"[ti] OR "carbohydrate\*" [ti] OR "carbohydrate-protein"[ti] OR "children"[ti] OR "young adult"[ti] OR "young adult\*" [ti]))))

**Search 2: Acute and Chronic Endurance (Aerobic) Exercise: Meta-Analyses, Systematic Reviews Only**

**Hits= 193**

Search 1 + Additional Filters Activated: Meta-Analysis, Systematic Reviews, Review

**Search 3: Acute and Chronic Dynamic Resistance Exercise**

**Hits= 1,119**

((("acute resistance exercise"[tiab] OR "acute resistive exercise"[tiab] OR "resistance exercises"[tiab] OR "resistance exercise"[tiab] OR "resistance exercise"[MAJR] OR "Resistance Training"[tiab] OR "Resistance Training"[MAJR] OR "resistance exercise training"[tiab] OR "strength training"[ti] OR "combination training"[tiab] OR "combined training"[tiab] OR "combined exercise"[ti] OR "Muscle Strength/physiology"[MeSH Terms])

AND ("blood pressure"[tiab] OR "blood pressure"[MeSH Term] OR "systolic\*"[ti] OR "diastolic\*"[ti] OR "hypertension"[ti] OR "hypertension"[MeSH Term] OR "hypotension"[tiab] OR "PEH"[tiab] OR "triglyceride"[tiab] OR "triglyceride"[mesh] OR "glucose"[ti] OR "plasma glucose"[ti] OR "glucose"[mesh] OR "insulin "[ti] OR "plasma insulin"[ti] OR "insulin"[mesh] OR "Lipoprotein"[ti] OR "Lipoproteins"[ti] OR "Lipoproteins"[mesh] OR "blood lipids"[ti] OR "Cholesterol"[ti] OR "Cholesterol"[mesh] OR "Cholesterol\*"[ti] OR "\*Cholesterol"[ti] OR "low-density\*"[ti] OR "high-density\*"[ti] OR "LDL\*"[ti] OR "HDL\*"[ti]))

AND (Adults))

NOT ("editorial"[pt] OR "letter"[pt] OR "observational\*"[pt] OR "case report"[pt] OR "comment"[pt] OR "evaluation\*"[pt] OR "validation\*"[pt] OR "guideline"[pt] OR "practice guideline"[pt] OR "population-referenced"[tiab] OR "ultra-endurance"[tiab] OR "video games"[tiab] OR "video game"[tiab] OR "lactating women"[tiab] OR "Postprandial"[ti] OR "stroke"[ti] OR "pregnant"[tiab] OR "pregnancy"[tiab] OR "Type 2 diabetes"[ti] OR "diabetes mellitus"[ti] OR "diabetes"[ti] OR "diabetic"[ti] OR "type 1 diabetes"[tiab] OR "type 1 diabetic"[tiab] OR "heart failure"[ti] OR "congestive heart failure"[ti] OR "myocardial infarction"[ti] OR "cerebral hemorrhage"[ti] OR "hemorrhage"[ti] OR "peripheral arterial disease"[ti] OR "down syndrome"[ti] OR "intellectual disability"[tiab] OR "preeclamptic"[tiab] OR "preeclampsia"[tiab] OR "coronary artery disease"[ti] OR claudication[ti] OR "coronary heart disease"[ti] OR "diet"[ti] OR "carbohydrate diets"[ti] OR "HIV"[tiab] OR "multiple sclerosis"[tiab] OR "sickle cell anaemia"[tiab] OR "sickle cell"[tiab] OR "supplementation"[ti] OR "supplements"[ti] OR "supplement"[ti] OR "meal"[ti] OR "meal\*"[ti] OR "protein intake"[ti] OR "carbohydrate intake"[ti] OR "fluid intake"[ti] OR "carbohydrate feedings"[ti] OR "non-alcoholic fatty liver disease"[ti] OR "carbohydrate ingestion"[ti] OR "carbohydrate\*"[ti] OR "carbohydrate-protein"[ti] OR "children"[ti] OR "young adult"[ti] OR "young adult\*"[ti]))))

**Search 4: Acute and Chronic Dynamic Resistance Exercise: Meta-Analyses, Systematic Reviews, Reviews Only**

**Hits= 44**

Search 3 + Additional Filters Activated: Meta-Analysis, Systematic Reviews, Review

**Search 5: Acute and Chronic Endurance (Aerobic) and Dynamic Resistance Exercise**

**Hits= 6,682**

(Search 1) AND (Search 3)

**Search 6: Acute and Chronic Endurance (Aerobic) and Dynamic Resistance Exercise: Meta-Analyses, Systematic Reviews, Reviews Only**

**Hits= 209**

Search 5 + Additional Filters Activated: Meta-Analysis, Systematic Reviews, Review

**Search 7: Acute and Chronic Endurance (Aerobic) and Dynamic Resistance Exercise: Randomized Controlled Trials Only**

**Hits= 1,427**

Search 5 + Additional Filters Activated: Randomized Controlled Trial