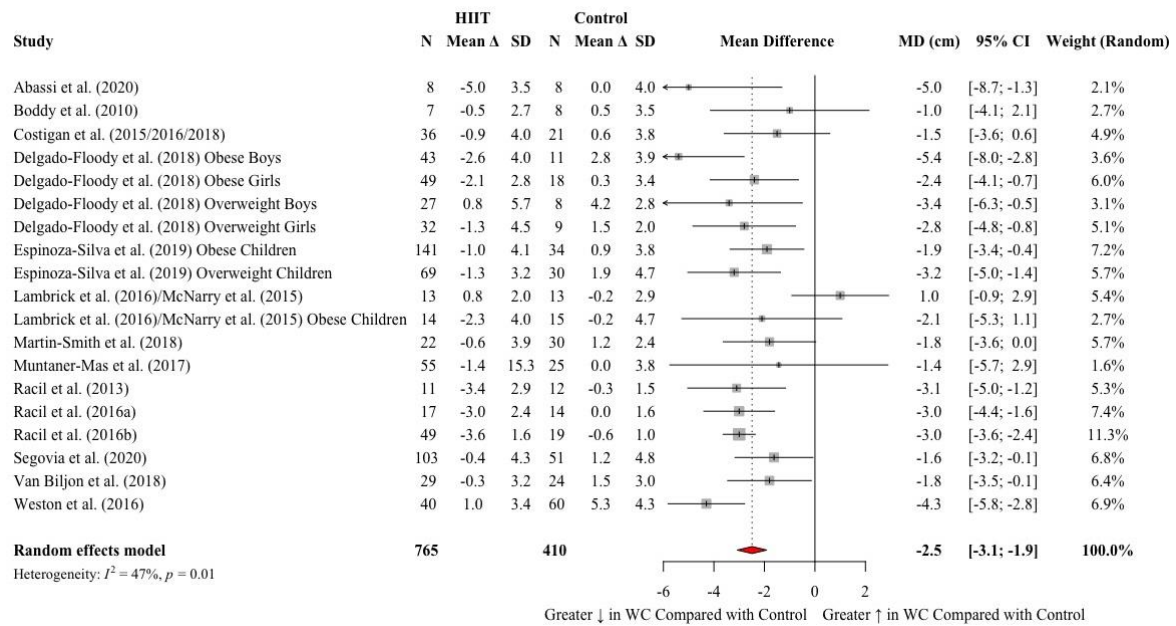


Supplement 3: Body Composition Forest Plots

1. Forest plot of high-intensity interval training versus control for waist circumference



The mean difference between the change scores for high-intensity interval training (HIIT) and the control groups in centimetres

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

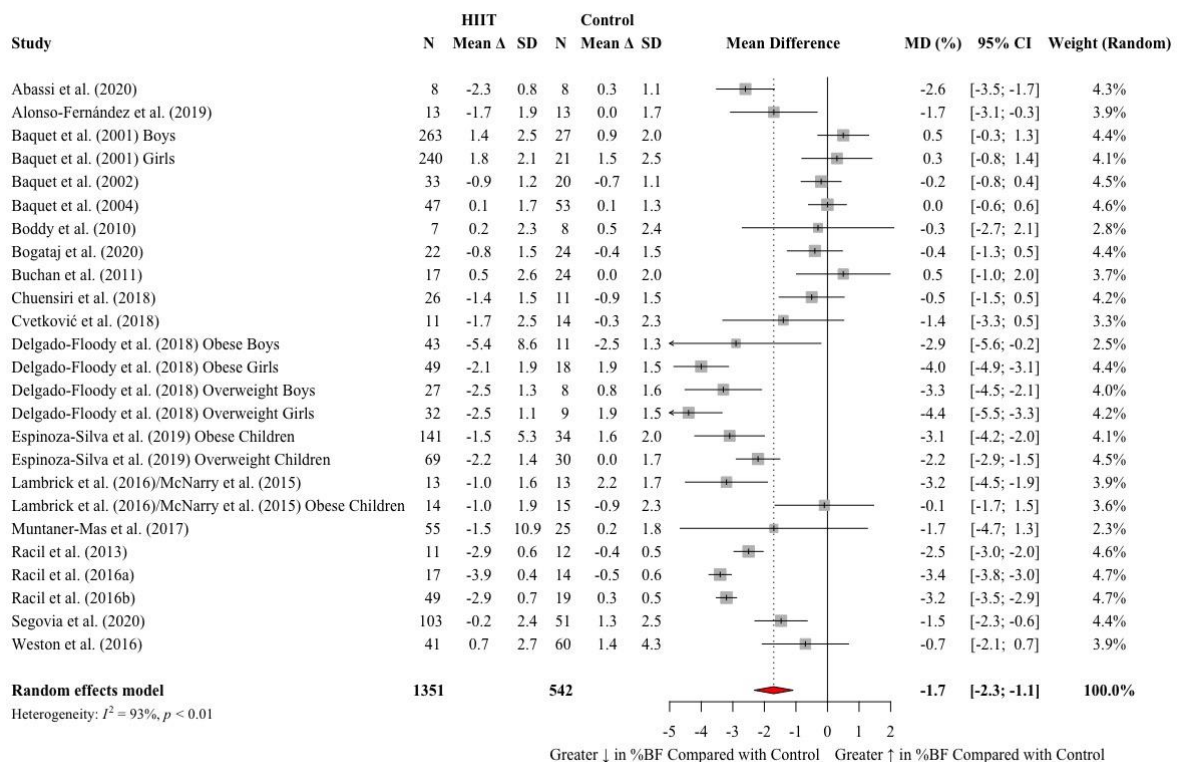
MD = mean difference between the HIIT and control groups

CI = confidence interval

WC = waist circumference

I^2 = variation across studies due to heterogeneity rather than chance

2. Forest plot of high-intensity interval training versus control for body fat percentage



The mean difference between the change scores for high-intensity interval training (HIIT) and the control groups in percentage

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

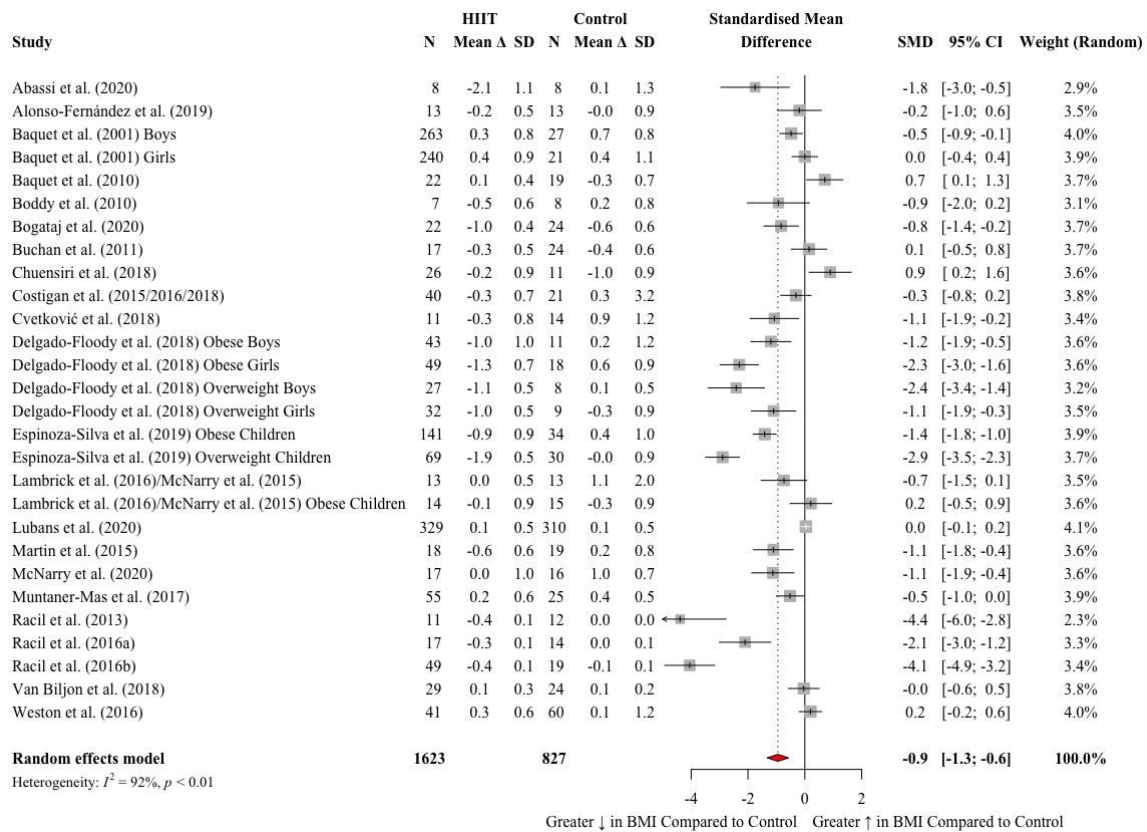
MD = mean difference between the HIIT and control groups

CI = confidence interval

%BF = percentage of body fat

I^2 = variation across studies due to heterogeneity rather than chance

3. Forest plot of high-intensity interval training versus control for body mass index



The standardised mean difference (SMD) between the change scores for high-intensity interval training (HIIT) and the control groups. SMD was used to account for numbers expressed as kg/m^2 and as z-scores.

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

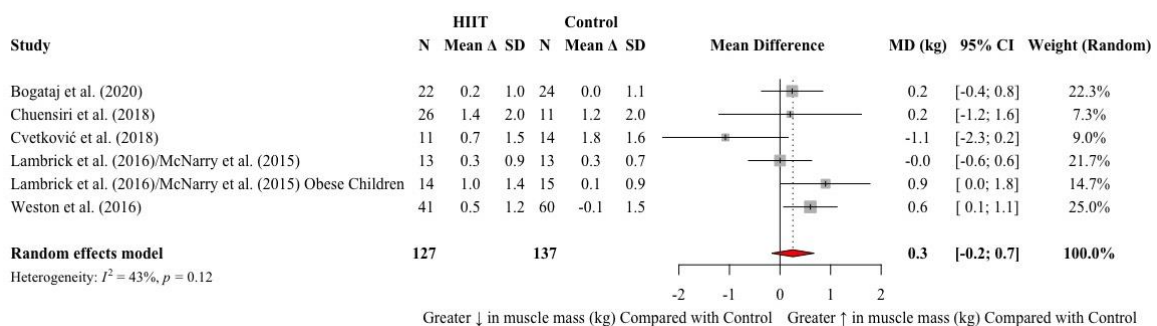
SMD = standardised mean difference between the HIIT and control groups

CI = confidence interval

BMI = body mass index

I^2 = variation across studies due to heterogeneity rather than chance

4. Forest plot of high-intensity interval training versus control for muscle mass



The mean difference between the change scores for high-intensity interval training (HIIT) and the control groups in kilograms

N = number of participants

Mean Δ = change score between pre- and post-tests

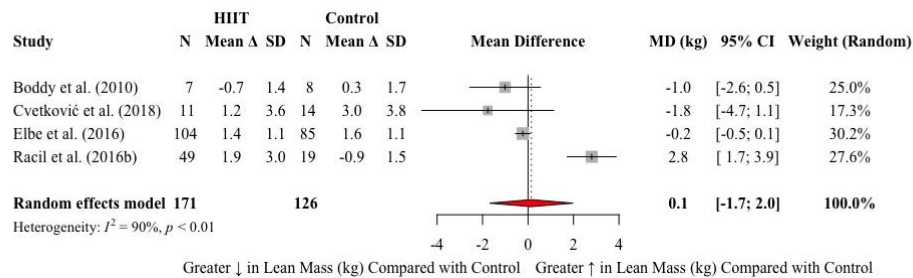
SD = standard deviation of the change score

MD = mean difference between the HIIT and control groups

CI = confidence interval

I^2 = variation across studies due to heterogeneity rather than chance

5. Forest plot of high-intensity interval training versus control for lean mass



The mean difference between the change scores for high-intensity interval training (HIIT) and the control groups in kilograms

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

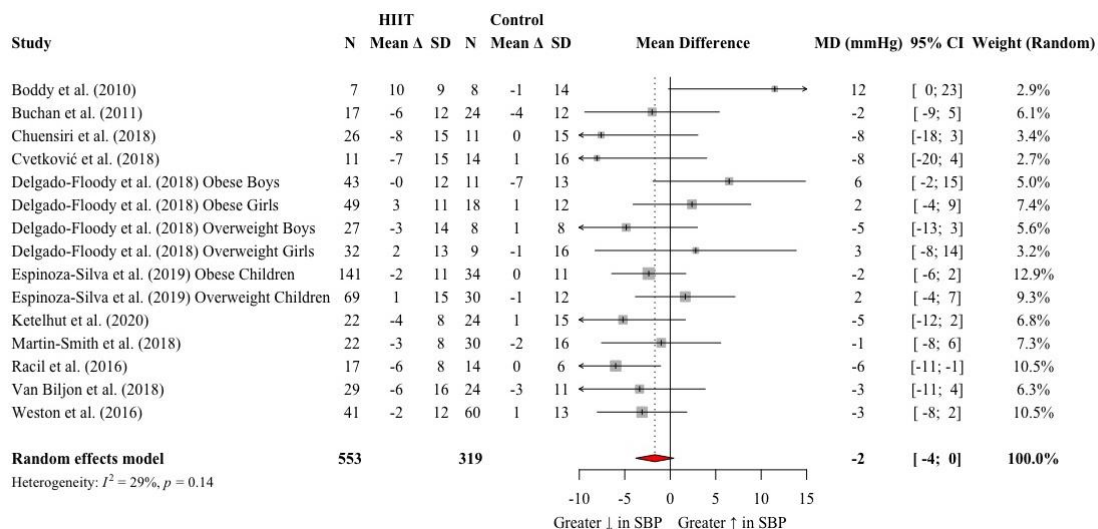
MD = mean difference between the HIIT and control groups

CI = confidence interval

I^2 = variation across studies due to heterogeneity rather than chance

Cardiovascular Health Forest Plots

1. Forest plot of high-intensity interval training versus control for systolic blood pressure



The mean difference between the change scores for high-intensity interval training (HIIT) and the control groups in millimetres of mercury.

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

MD = mean difference between the HIIT and control groups

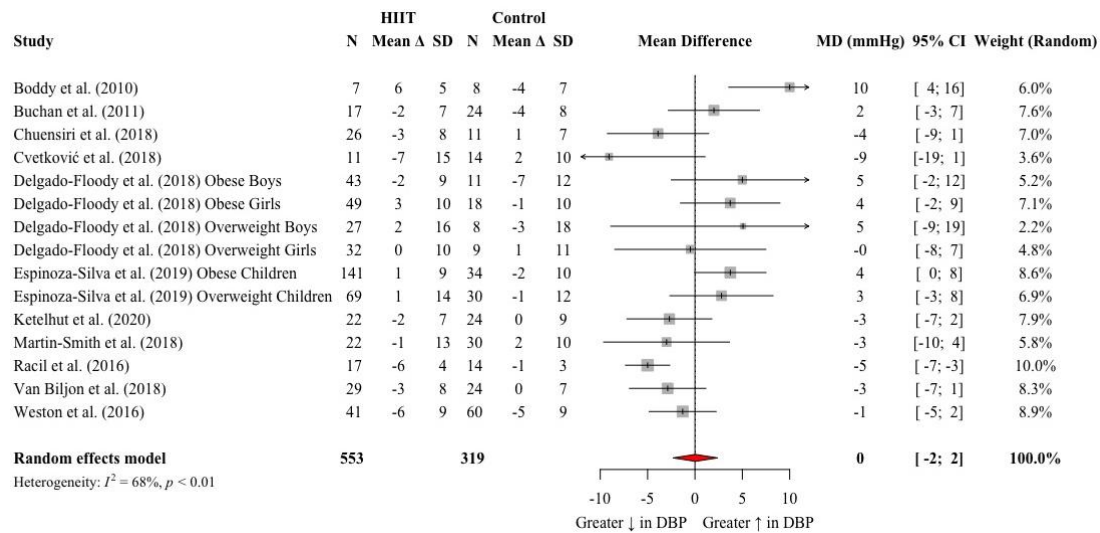
CI = confidence interval

SBP = systolic blood pressure

mmHg = millimetres of mercury

I^2 = variation across studies due to heterogeneity rather than chance

2. Forest plot of high-intensity interval training versus control for diastolic blood pressure



The mean difference between the change scores for high-intensity interval training (HIIT) and the control groups in millimetres of mercury.

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

MD = mean difference between the HIIT and control groups

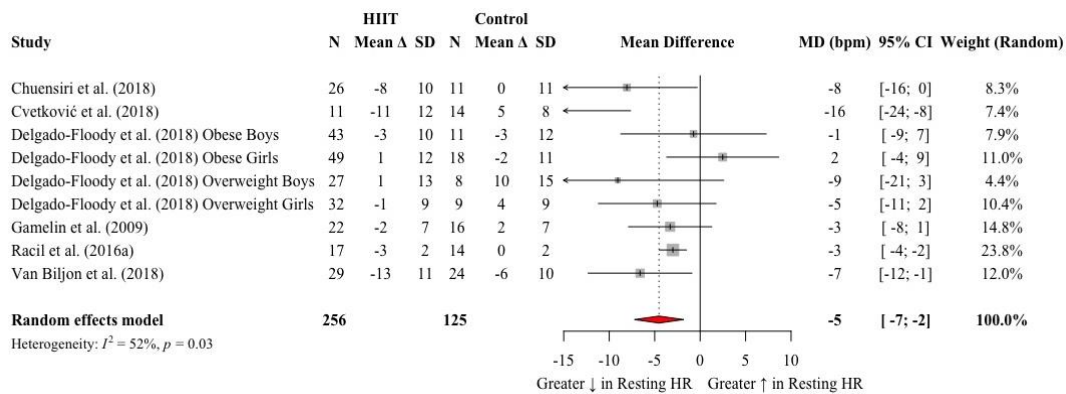
CI = confidence interval

DBP = diastolic blood pressure

mmHg = millimetres of mercury

I^2 = variation across studies due to heterogeneity rather than chance

3. Forest plot of high-intensity interval training versus control for resting heart rate



The mean difference between the change scores for high-intensity interval training (HIIT) and the control groups in beats per minute.

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

MD = mean difference between the HIIT and control groups

CI = confidence interval

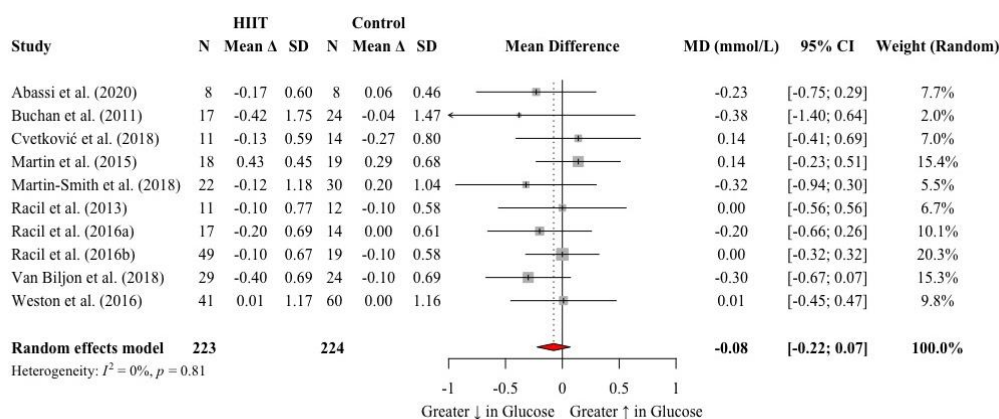
HR = systolic blood pressure

Bpm = beats per minute

I^2 = variation across studies due to heterogeneity rather than chance

Blood Profile Forest Plots

1. Forest plot of high-intensity interval training versus control for fasting glucose



The mean difference between the change scores for high-intensity interval training (HIIT) and the control groups in millimoles per litre.

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

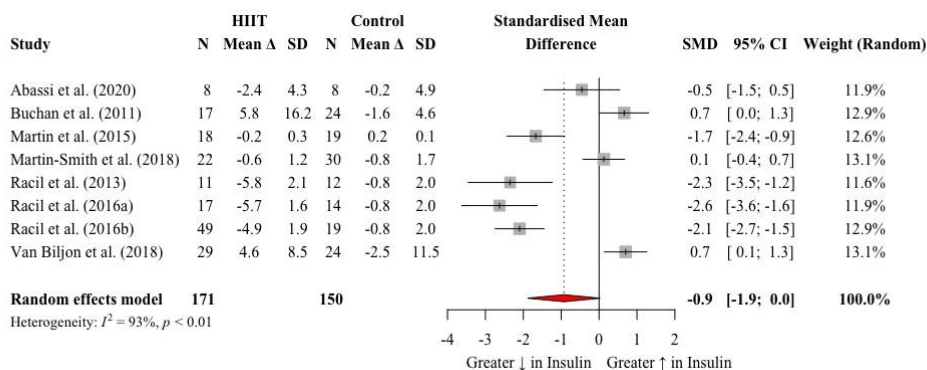
MD = mean difference between the HIIT and control groups

CI = confidence interval

Mmol/L = millimoles per litre

I^2 = variation across studies due to heterogeneity rather than chance

2. Forest plot of high-intensity interval training versus control for fasting insulin



The standardised mean difference (SMD) between the change scores for high-intensity interval training (HIIT) and the control groups. SMD was used to account for different units of measurement presented.

N = number of participants

Mean Δ = change score between pre- and post-tests

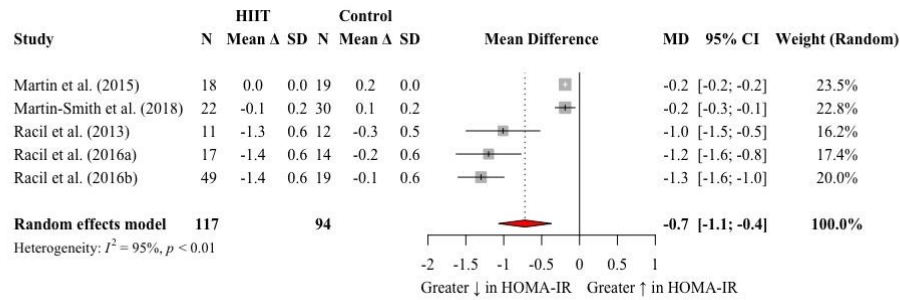
SD = standard deviation of the change score

SMD = standardised mean difference between the HIIT and control groups

CI = confidence interval

I^2 = variation across studies due to heterogeneity rather than chance

3. Forest plot of high-intensity interval training versus control for homeostatic model assessment – insulin resistance (HOMA-IR)



The mean difference between the change scores for high-intensity interval training (HIIT) and the control groups.

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

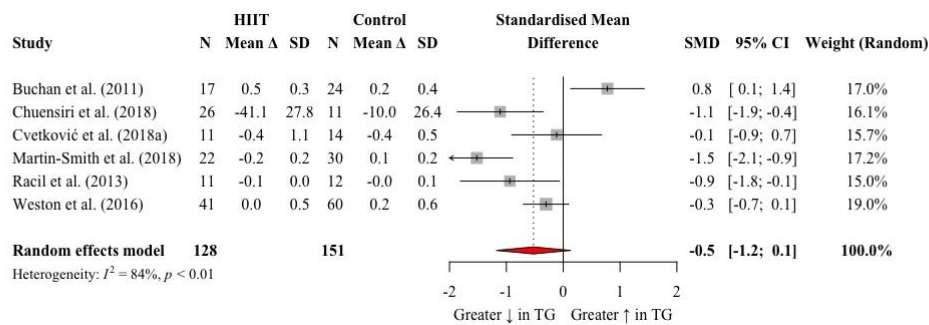
MD = mean difference between the HIIT and control groups

CI = confidence interval

HOMA-IR = homeostatic model assessment – insulin resistance

I^2 = variation across studies due to heterogeneity rather than chance

4. Forest plot of high-intensity interval training versus control for triglycerides



The standardised mean difference (SMD) between the change scores for high-intensity interval training (HIIT) and the control groups. SMD was used to account for different units of measurement presented.

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

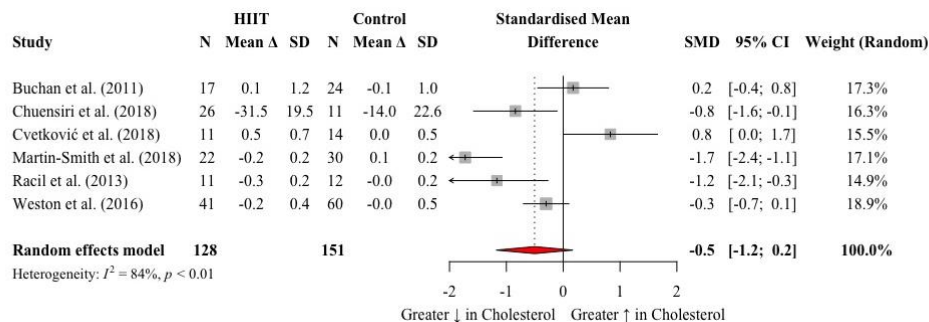
SMD = standardised mean difference between the HIIT and control groups

TG = triglycerides

CI = confidence interval

I^2 = variation across studies due to heterogeneity rather than chance

5. Forest plot of high-intensity interval training versus control for total cholesterol



The standardised mean difference (SMD) between the change scores for high-intensity interval training (HIIT) and the control groups. SMD was used to account for different units of measurement presented.

N = number of participants

Mean Δ = change score between pre- and post-tests

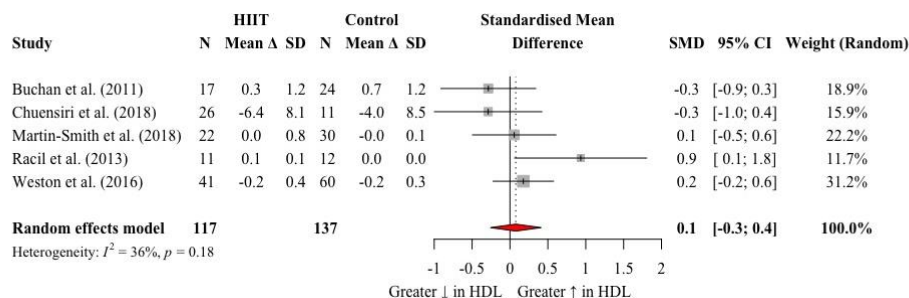
SD = standard deviation of the change score

SMD = standardised mean difference between the HIIT and control groups

CI = confidence interval

I² = variation across studies due to heterogeneity rather than chance

6. Forest plot of high-intensity interval training versus control for total high-density lipoprotein



The standardised mean difference (SMD) between the change scores for high-intensity interval training (HIIT) and the control groups. SMD was used to account for different units of measurement presented.

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

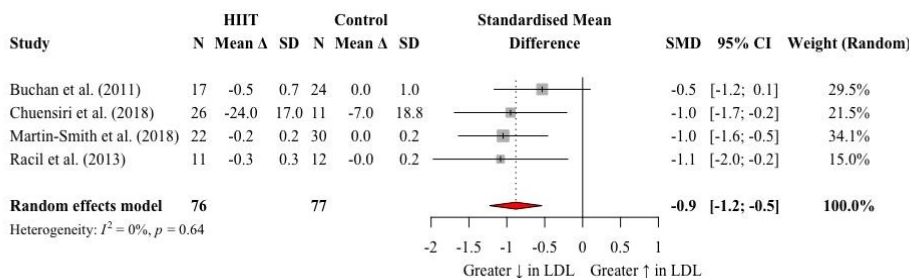
SMD = standardised mean difference between the HIIT and control groups

HDL = high-density lipoprotein

CI = confidence interval

I² = variation across studies due to heterogeneity rather than chance

7. Forest plot of high-intensity interval training versus control for total low-density lipoprotein



The standardised mean difference (SMD) between the change scores for high-intensity interval training (HIIT) and the control groups. SMD was used to account for different units of measurement presented.

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

SMD = standardised mean difference between the HIIT and control groups

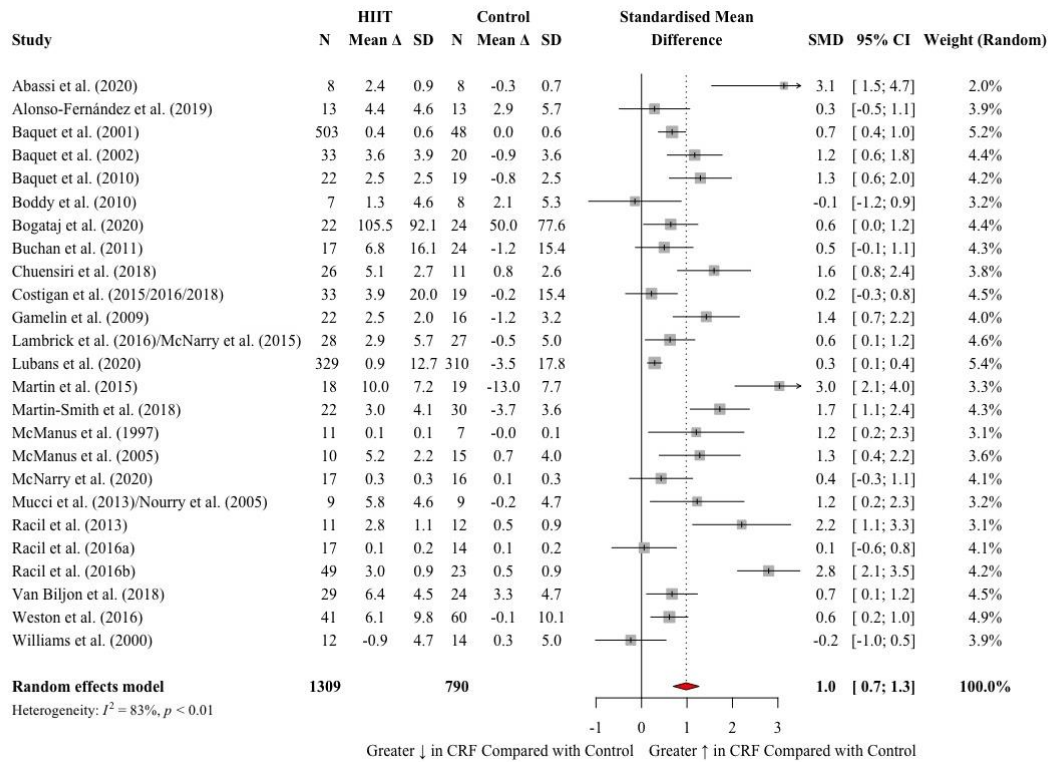
LDL = low-density lipoprotein

CI = confidence interval

I² = variation across studies due to heterogeneity rather than chance

Aerobic and Muscular Fitness Forest Plots

1. Forest plot of high-intensity interval training versus control for all measurements of cardiorespiratory fitness



The standardised mean difference (SMD) between the change scores for high-intensity interval training (HIIT) and the control groups. SMD was used to account for different measures used to quantify cardiorespiratory fitness.

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

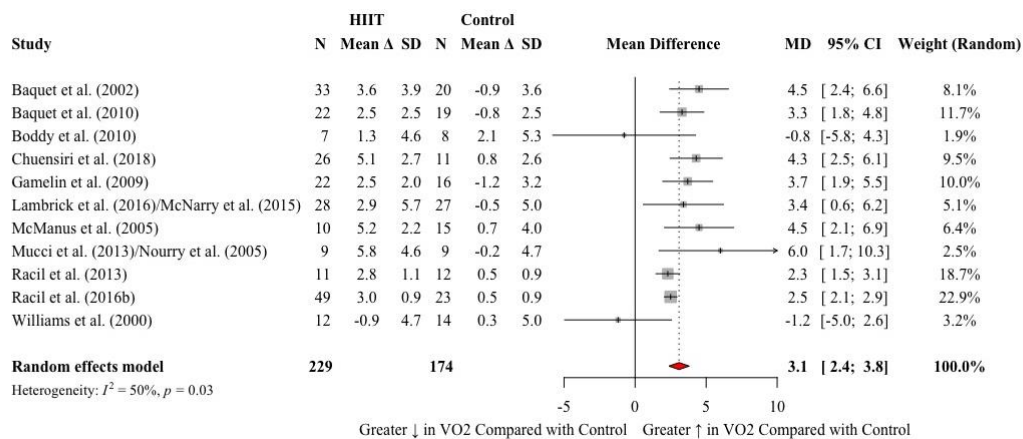
SMD = standardised mean difference between the HIIT and control groups

CI = confidence interval

CRF = cardiorespiratory fitness

I^2 = variation across studies due to heterogeneity rather than chance

2. Forest plot of high-intensity interval training versus control for cardiorespiratory fitness measured using a metabolic cart to measure relative VO_2



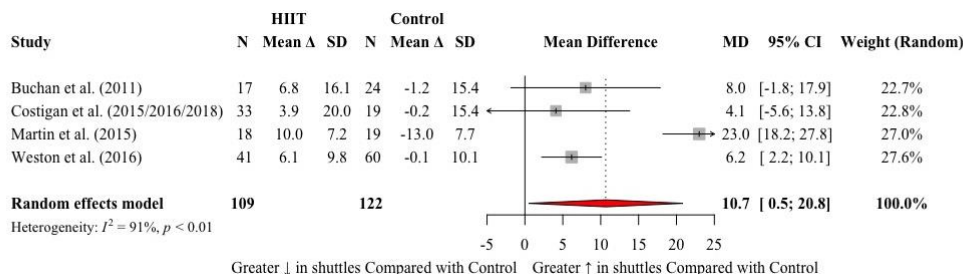
The mean difference between the change scores for high-intensity interval training (HIIT) and the control groups in ml/min/kg.

N = number of participants

Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score
 MD = mean difference between the HIIT and control groups
 VO₂ = maximum rate of oxygen consumption
 I² = variation across studies due to heterogeneity rather than chance

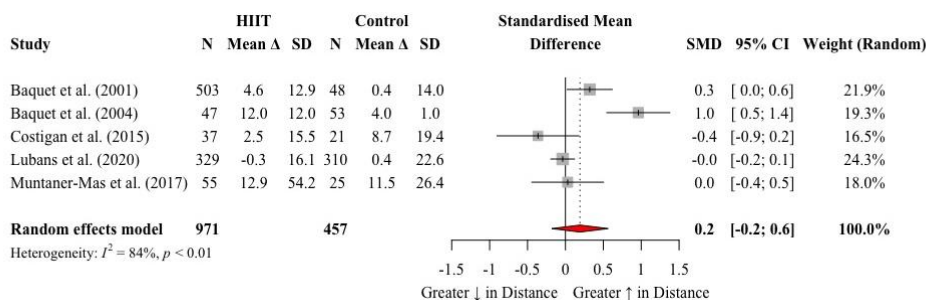
3. Forest plot of high-intensity interval training versus control for cardiorespiratory fitness measured using number of shuttles completed in the 20 m shuttle run test



The mean difference between the change scores for high-intensity interval training (HIIT) and the control groups in number of shuttles.

N = number of participants
 Mean Δ = change score between pre- and post-tests
 SD = standard deviation of the change score
 MD = mean difference between the HIIT and control groups
 I² = variation across studies due to heterogeneity rather than chance

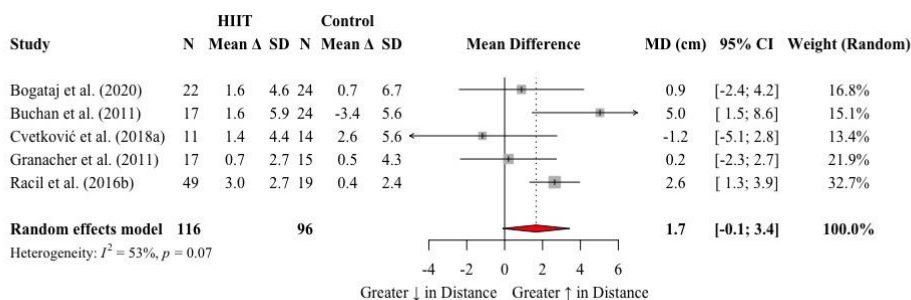
4. Forest plot of high-intensity interval training versus control for standing long jump



The standardised mean difference (SMD) between the change scores for high-intensity interval training (HIIT) and the control groups.

Mean Δ = change score between pre- and post-tests
 SD = standard deviation of the change score
 SMD = standardised mean difference between the HIIT and control groups
 CI = confidence interval
 I² = variation across studies due to heterogeneity rather than chance

5. Forest plot of high-intensity interval training versus control for countermovement jump



The mean difference between the change scores for high-intensity interval training (HIIT) and the control groups in centimetres

N = number of participants
 Mean Δ = change score between pre- and post-tests

SD = standard deviation of the change score

MD = mean difference between the HIIT and control groups

CI = confidence interval

I^2 = variation across studies due to heterogeneity rather than chance