

Supplemental Digital Content

Supplemental digital content 1. Search strategy for databases.

Search terms

(exercise training OR aerobic training OR resistance training OR high intensity interval training OR sprint training) AND (testosterone OR hormones* OR androgens*) AND (men OR males).

Databases

Search one

CINAHL No date specific to 27 January 2019: 594 studies identified.

MEDLINE No date specific to 27 January 2019: 1825 studies identified.

SPORTDiscus No date specific to 27 January 2019: 849 studies identified.

SCOPUS No date specific to 27 January 2019: 572 studies identified.

Search two

CINAHL January 2019 to 9 September 2019: 37 studies identified.

MEDLINE January 2019 to 9 September 2019: 80 studies identified.

SPORTDiscus January 2019 to 9 September 2019: 30 studies identified.

SCOPUS January 2019 to 9 September 2019: 29 studies identified.

Search three

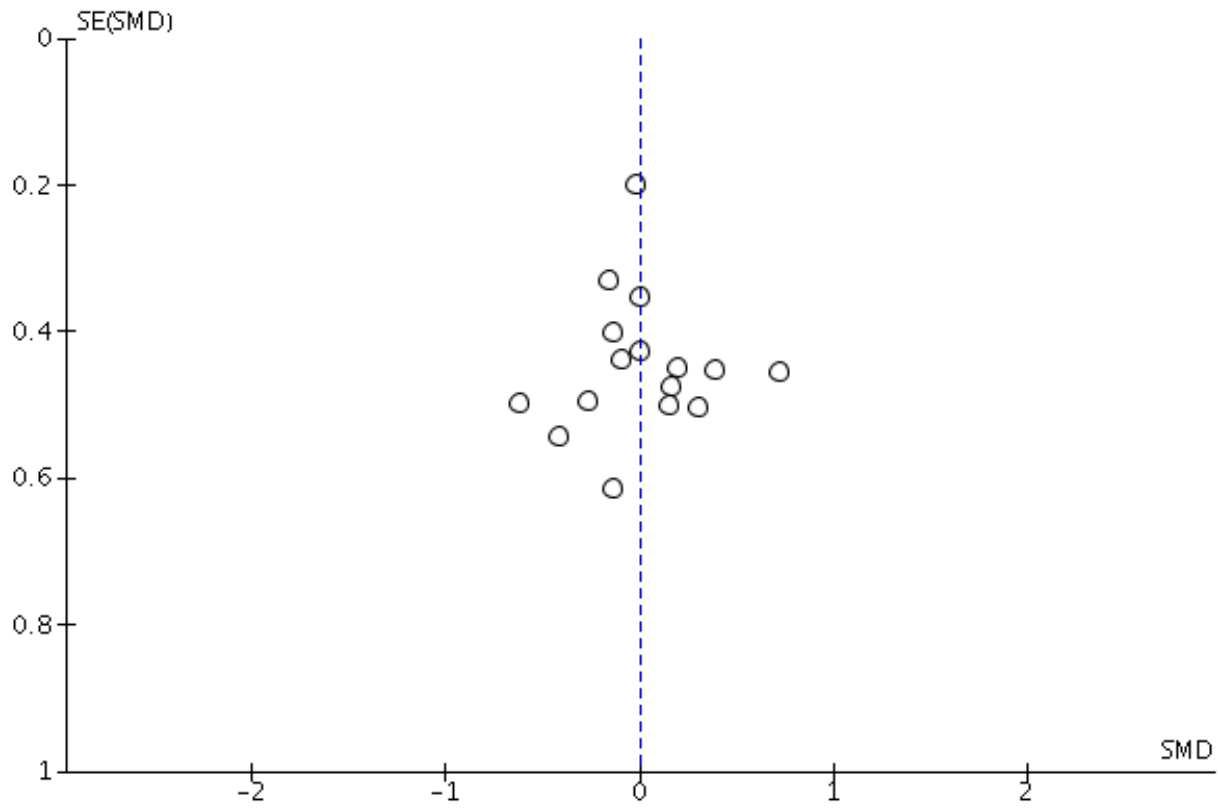
CINAHL September 2019 to 22 October 2020: 43 studies identified.

MEDLINE September 2019 to 22 October 2020: 125 studies identified.

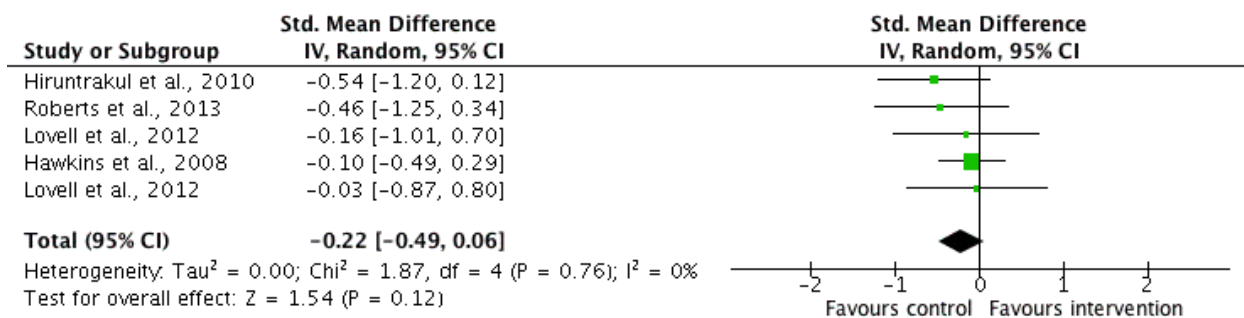
SPORTDiscus September 2019 to 22 October 2020: 43 studies identified.

SCOPUS September 2019 to 22 October 2020: 98 studies identified.

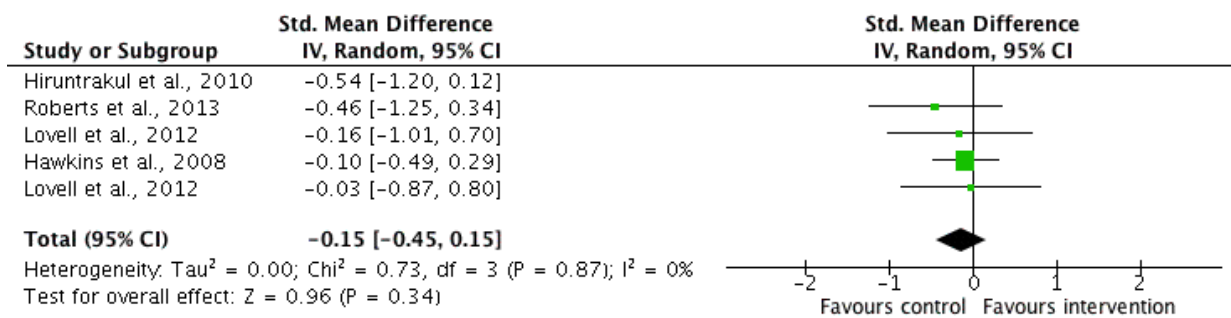
Supplemental digital content 2. Funnel plot for the overall effect of exercise training on resting serum total testosterone concentration (k=16).



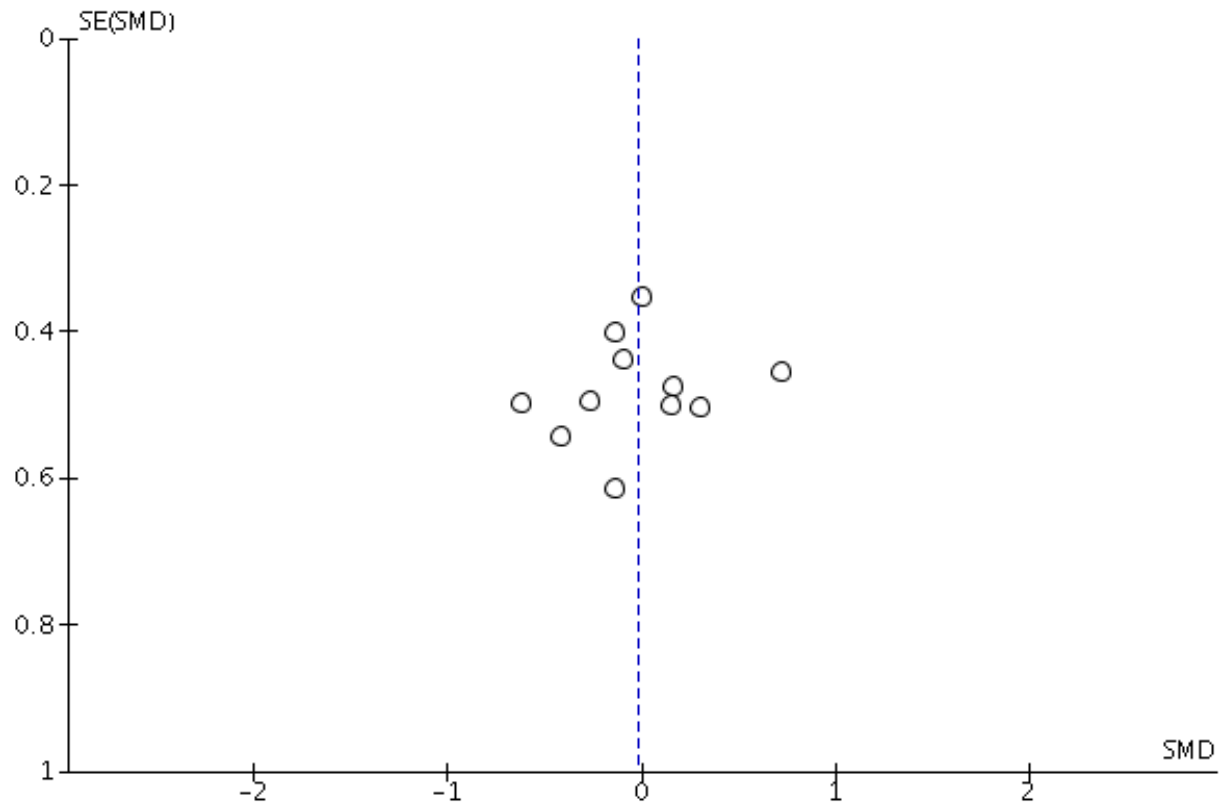
Supplemental digital content 3. Forest plot of the overall exercise training effects (and 95% confidence intervals [CIs]) on resting serum free testosterone concentration (k=5). The green squares represent the resting serum free testosterone concentration standardized mean differences (SMD) and the solid horizontal lines represent the 95% CIs. Positive SMDs indicate favorable experimental effects and negative SMDs indicate unfavorable experimental effects.



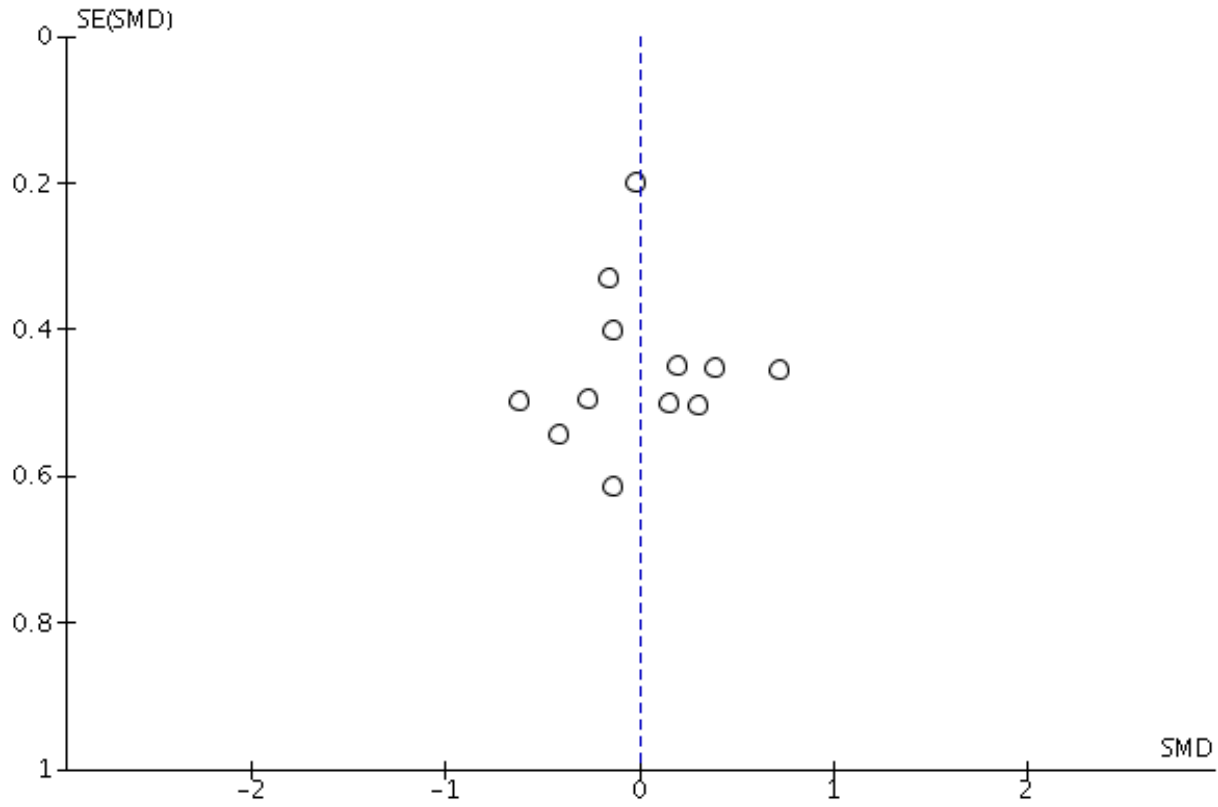
Supplemental digital content 4. Forest plot of the overall exercise training effects (and 95% confidence intervals [CIs]) on resting serum free testosterone concentration (k=4) with one study removed due to use of an assay that is no longer recommended by the Endocrine Society. The green squares represent the resting serum free testosterone concentration standardized mean differences (SMD) and the solid horizontal lines represent the 95% CIs. Positive SMDs indicate favorable experimental effects and negative SMDs indicate unfavorable experimental effects.



Supplemental digital content 5. Funnel plot for the effect of resistance training on resting serum total testosterone concentration (k=11).



Supplemental digital content 6. Funnel plot for the effect of exercise training on resting serum total testosterone concentration in young men (<60 years; k=12).



Supplemental digital content 7. Funnel plot for the effect of exercise training on resting serum total testosterone concentration in nonobese men (body mass index <30; k=13).

