



STRENGTHENING THE EVIDENCE IN EXERCISE SCIENCES

The SEES Initiative

Journal Reports 2019

Sports Medicine

Systematic Reviews with Meta-Analyses



www.sees-initiative.org

About SEES Initiative

We are a group of academics, including faculty, post-doctoral fellows, graduate, and undergraduate students, highly compelled to do meta-research in publications featuring interventions of exercise and physical activity applied to several health conditions.

Our primary goal is to promote surveillance of published evidence in exercise sciences, fostering a culture of respectful and critical appraisal for the published evidence in our field. We attempt to do so as transparently and collaboratively as possible.

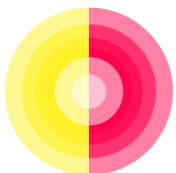
Further, we ultimately aim to increase the awareness regarding the need for transparent and informative scientific reports that should be valued by a complete reporting, carefully designed methods, and well-reasoned claims on the pursued research question.

About this collection

The present journal collection displays assessment reports generated by us as a result of continuous and systematic surveillance of published articles by the featured journal. Such publications reported either randomized clinical trials or systematic reviews with meta-analysis. All of our assessment reports were sent by email to the corresponding authors. Whenever requested by authors, we were prone to proceed required revisions and self-correction (whenever applicable), disseminating the corrected assessment reported.

©2020 SEES Initiative: Textbook content produced by SEES Initiative is licensed under a Creative Commons. Attribution 4.0 International License (CC BY 4.0)

DOI: 10.17605/OSF.IO/NTW7D



Contents



Journal: Sports Medicine

Editor in Chief: Steve McMillan and Roger Olney

Website: <https://www.springer.com/journal/40279>

Number of systematic reviews with meta-analyses assessed by the SEES Initiative

36 articles

Information for individual publication reports

Title	Pack*	Links
Revised Approach to the Role of Fatigue in Anterior Cruciate Ligament Injury Prevention: A Systematic Review with Meta-Analyses	01	SEES link: https://sees-initiative.org/benjamine-30659497/
Effects of Blood Flow Restriction Training on Muscular Strength and Hypertrophy in Older Individuals: A Systematic Review and Meta-Analysis	01	SEES link: https://sees-initiative.org/centner-30306467/
Exercise Dose and Weight Loss in Adolescents with Overweight–Obesity: A Meta-Regression	01	SEES link: https://sees-initiative.org/stoner-30560421/
Does Aerobic Training Promote the Same Skeletal Muscle Hypertrophy as Resistance Training? A Systematic Review and Meta-Analysis	02	SEES link: https://sees-initiative.org/grgic-30341595/
Effects of Evening Exercise on Sleep in Healthy Participants: A Systematic Review and Meta-Analysis	02	SEES link: https://sees-initiative.org/stutz-30374942/
Aerobic Training Protects Cardiac Function During Advancing Age: A Meta-Analysis of Four	02	SEES link: https://sees-initiative.org/beaumo

Decades of Controlled Studies		nt-30374946/
Active Commuting and Multiple Health Outcomes: A Systematic Review and Meta-Analysis	03	SEES link: https://sees-initiative.org/dinu-30446905/
Relative Efficacy of Different Exercises for Pain, Function, Performance and Quality of Life in Knee and Hip Osteoarthritis: Systematic Review and Network Meta-Analysis	03	SEES link: https://sees-initiative.org/goh-30830561/
Acute Effects of Resistance Exercise on Cognitive Function in Healthy Adults: A Systematic Review with Multilevel Meta-Analysis	03	SEES link: https://sees-initiative.org/wilke-30838520/
A Systematic Review and Meta-Analysis of Crossover Studies Comparing Physiological, Perceptual and Performance Measures Between Treadmill and Overground Running	03	SEES link: https://sees-initiative.org/miller-30847825/
Effects of Small-Sided Games vs. Conventional Endurance Training on Endurance Performance in Male Youth Soccer Players: A Meta-Analytical Comparison	03	SEES link: https://sees-initiative.org/moran-30868441/
Acute Effects of Citrulline Supplementation on High-Intensity Strength and Power Performance: A Systematic Review and Meta-Analysis	03	SEES link: https://sees-initiative.org/trexler-30895562/
Is Muscular Fitness Associated with Future Health Benefits in Children and Adolescents? A Systematic Review and Meta-Analysis of Longitudinal Studies	04	SEES link: https://sees-initiative.org/garcia-hermoso-30953308/
Role of Physical Activity and Sedentary Behavior in the Mental Health of Preschoolers, Children and Adolescents: A Systematic Review and Meta-Analysis	04	SEES link: https://sees-initiative.org/rodriguez-ayllon-30993594/
Exercise Frequency Determines Heart Rate Variability Gains in Older People: A Meta-Analysis and Meta-Regression	05	SEES link: https://sees-initiative.org/pmid30945205/
Effects of Workplace-Based Physical Activity Interventions on Cardiorespiratory Fitness: A Systematic Review and Meta-Analysis of Controlled Trials	05	SEES link: https://sees-initiative.org/pmid31115827/

Left Ventricular Function and Cardiac Biomarker Release—The Influence of Exercise Intensity, Duration and Mode: A Systematic Review and Meta-Analysis	06	SEES link: https://sees-initiative.org/pmid31214979/
Determining the Sites of Neural Adaptations to Resistance Training: A Systematic Review and Meta-Analysis	07	SEES link: https://sees-initiative.org/pmid31359349/
The Impact of Different Types of Exercise Training on Peripheral Blood Brain-Derived Neurotrophic Factor Concentrations in Older Adults:A Meta-Analysis	07	SEES link: https://sees-initiative.org/pmid31270754/
The Effects of Continuous Compared to Accumulated Exercise on Health: A Meta-Analytic Review	07	SEES link: https://sees-initiative.org/pmid31267483/
The Effect of Low-Volume High-Intensity Interval Training on Body Composition and Cardiorespiratory Fitness: A Systematic Review and Meta-Analysis	08	SEES link: https://sees-initiative.org/pmid31401727/
Effects of Exercise Intervention on Health-Related Physical Fitness and Blood Pressure in Preschool Children: A Systematic Review and Meta-Analysis of Randomized Controlled Trials	09	SEES link: https://sees-initiative.org/pmid31556009/
Effects of Interrupting Prolonged Sitting with Physical Activity Breaks on Blood Glucose, Insulin and Triacylglycerol Measures: A Systematic Review and Meta-analysis	09	SEES link: https://sees-initiative.org/pmid31552570/
Effect of Strength Training on Biomechanical and Neuromuscular Variables in Distance Runners: A Systematic Review and Meta-Analysis	09	SEES link: https://sees-initiative.org/pmid31541409/
DNA Damage Following Acute Aerobic Exercise: A Systematic Review and Meta-analysis	09	SEES link: https://sees-initiative.org/pmid31529301/
The Acute Neuromuscular Responses to Cluster Set Resistance Training: A Systematic Review and Meta-Analysis	09	SEES link: https://sees-initiative.org/pmid31506904/
The Effect of Nordic Hamstring Exercise Intervention Volume on Eccentric Strength and	09	SEES link: https://sees-initiative.org/pmid31502142/

Muscle Architecture Adaptations: A Systematic Review and Meta-analyses		
Effects of Physical Exercise Training in the Workplace on Physical Fitness: A Systematic Review and Meta-analysis	09	SEES link: https://sees-initiative.org/pmid31494864/
Acute Effects of Foam Rolling on Range of Motion in Healthy Adults: A Systematic Review with Multilevel Meta-analysis	10	SEES link: https://sees-initiative.org/pmid31628662/
The Effects of Interval and Continuous Training on the Oxygen Cost of Running in Recreational Runners: A Systematic Review and Meta-analysis	10	SEES link: https://sees-initiative.org/pmid31606879/
Running to Lower Resting Blood Pressure: A Systematic Review and Meta-analysis	11	SEES link: https://sees-initiative.org/pmid31677122/
Efficacy of School-Based Interventions for Improving Muscular Fitness Outcomes in Adolescent Boys: A Systematic Review and Meta-analysis	11	SEES link: https://sees-initiative.org/pmid31729638/
Impact of Pre-exercise Hypohydration on Aerobic Exercise Performance, Peak Oxygen Consumption and Oxygen Consumption at Lactate Threshold: A Systematic Review with Meta-analysis	11	SEES link: https://sees-initiative.org/pmid31728846/
What are the Benefits and Risks Associated with Changing Foot Strike Pattern During Running? A Systematic Review and Meta-analysis of Injury, Running Economy, and Biomechanics	12	SEES link: https://sees-initiative.org/pmid31823338/
The Effect of Resistance Training in Women on Dynamic Strength and Muscular Hypertrophy: A Systematic Review With Meta-analysis	12	SEES link: https://sees-initiative.org/pmid31820374/
The Minimum Effective Training Dose Required to Increase 1RM Strength in Resistance-Trained Men: A Systematic Review and Meta-Analysis	12	SEES link: https://sees-initiative.org/pmid31797219/

*Pack: (place where each month's articles are archived).



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Revised Approach to the Role of Fatigue in Anterior Cruciate Ligament Injury Prevention: A Systematic Review with Meta-Analyses

PMID

30659497

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 1

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	No
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	No
Methodological rigor	Methods: How many languages were considered for study eligibility?	3
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	No
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Does not apply

Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Does not apply
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	Yes
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Effects of Blood Flow Restriction Training on Muscular Strength and Hypertrophy in Older Individuals: A Systematic Review and Meta-Analysis

PMID

30306467

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 1

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PROSPERO
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	No
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	No
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	No
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Exercise Dose and Weight Loss in Adolescents with Overweight–Obesity: A Meta-Regression

PMID

30560421

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 1

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	No
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	No
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	Yes
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes

Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	No
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	Yes
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, ONLY for the study and/or outcome level (review processes not mentioned)
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Does Aerobic Training Promote the Same Skeletal Muscle Hypertrophy as Resistance Training? A Systematic Review and Meta-Analysis

PMID

30341595

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 2

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	No
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	No
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	No
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Partial Yes (there are individual results without specification of specific criteria/domains)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Effects of Evening Exercise on Sleep in Healthy Participants: A Systematic Review and Meta-Analysis

PMID

30374942

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 2

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	No restriction
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes

Completeness	Results: Is there a description of study duration (follow-up lengths)?	Does not apply
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Yes (FULL description)
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Aerobic Training Protects Cardiac Function During Advancing Age: A Meta-Analysis of Four Decades of Controlled Studies

PMID

30374946

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 2

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes

Completeness	Results: Is there a description of study duration (follow-up lengths)?	Does not apply
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Partial Yes (there are individual results without specification of specific criteria/domains)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Active Commuting and Multiple Health Outcomes: A Systematic Review and Meta-Analysis

PMID

30446905

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 3

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	No
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	No
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	No restriction
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes

Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	Yes
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Relative Efficacy of Different Exercises for Pain, Function, Performance and Quality of Life in Knee and Hip Osteoarthritis:
Systematic Review and Network Meta-Analysis

PMID

30830561

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 3

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PROSPERO
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	No restriction
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	No
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	No
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	No
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Acute Effects of Resistance Exercise on Cognitive Function in Healthy Adults: A Systematic Review with Multilevel Meta-Analysis

PMID

30838520

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 3

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PROSPERO
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	No
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	No
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	No
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	No
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Does not apply
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	No
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	No
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

A Systematic Review and Meta-Analysis of Crossover Studies Comparing Physiological, Perceptual and Performance Measures Between Treadmill and Overground Running

PMID

30847825

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 3

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PROSPERO
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	No
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Does not apply
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Yes (FULL description)
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Effects of Small-Sided Games vs. Conventional Endurance Training on Endurance Performance in Male Youth Soccer Players:
A Meta-Analytical Comparison

PMID

30868441

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 3

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Acute Effects of Citrulline Supplementation on High-Intensity Strength and Power Performance: A Systematic Review and Meta-Analysis.

PMID

30895562

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 3

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	No
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Does not apply
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	No
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Is Muscular Fitness Associated with Future Health Benefits in Children and Adolescents? A Systematic Review and Meta-Analysis of Longitudinal Studies

PMID

30953308

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 4

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PROSPERO
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	No
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Does not apply
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, ONLY for the study and/or outcome level (review processes not mentioned)
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Role of Physical Activity and Sedentary Behavior in the Mental Health of Preschoolers, Children and Adolescents: A Systematic Review and Meta-Analysis

PMID

30993594

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 4

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PROSPERO
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	No
Methodological rigor	Methods: How many languages were considered for study eligibility?	2
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	No
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes

Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Does not apply
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Exercise Frequency Determines Heart Rate Variability Gains in Older People: A Meta-Analysis and Meta-Regression

PMID

30945205

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 5

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes

Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, ONLY for the study and/or outcome level (review processes not mentioned)
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Effects of Workplace-Based Physical Activity Interventions on Cardiorespiratory Fitness: A Systematic Review and Meta-Analysis of Controlled Trials

PMID

31115827

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 5

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PROSPERO
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	No
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Yes (FULL description)
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Left Ventricular Function and Cardiac Biomarker Release—The Influence of Exercise Intensity, Duration and Mode: A Systematic Review and Meta-Analysis

PMID

31214979

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 6

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PR
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	No
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	No
Completeness	Abstract: Is there a description of the number of included studies?	No
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	No
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	No
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	No
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	No
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	No
Completeness	Results: Is there a description of study duration (follow-up lengths)?	No

Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Does not apply
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Determining the Sites of Neural Adaptations to Resistance Training: A Systematic Review and Meta-Analysis

PMID

31359349

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 7

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	No
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	No
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	No
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	No

Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

The Impact of Different Types of Exercise Training on Peripheral Blood Brain-Derived Neurotrophic Factor Concentrations in Older Adults: A Meta-Analysis

PMID

31270754

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 7

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PR
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	No
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	No
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Does not apply
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, ONLY for the study and/or outcome level (review processes not mentioned)
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

The Effects of Continuous Compared to Accumulated Exercise on Health: A Meta-Analytic Review

PMID

31267483

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 7

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PR
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	No
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	No
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes

Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Does not apply
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

The Effect of Low-Volume High-Intensity Interval Training on Body Composition and Cardiorespiratory Fitness: A Systematic Review and Meta-Analysis

PMID

31401727

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 8

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	No restriction
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	No
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, ONLY for the study and/or outcome level (review processes not mentioned)
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Effects of Exercise Intervention on Health-Related Physical Fitness and Blood Pressure in Preschool Children: A Systematic Review and Meta-Analysis of Randomized Controlled Trials.

PMID

31556009

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 9

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PR
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	No
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	No
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Effects of Interrupting Prolonged Sitting with Physical Activity Breaks on Blood Glucose, Insulin and Triacylglycerol Measures:
A Systematic Review and Meta-analysis

PMID

31552570

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 9

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PR
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Does not apply
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Effect of Strength Training on Biomechanical and Neuromuscular Variables in Distance Runners: A Systematic Review and Meta-Analysis.

PMID

31541409

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 9

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

DNA Damage Following Acute Aerobic Exercise: A Systematic Review and Meta-analysis

PMID

31529301

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 9

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	No
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	No
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	No
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	No
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes

Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	Yes
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

The Acute Neuromuscular Responses to Cluster Set Resistance Training: A Systematic Review and Meta-Analysis

PMID

31506904

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 9

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	No
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes

Completeness	Results: Is there a description of study duration (follow-up lengths)?	Does not apply
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	Yes
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

The Effect of Nordic Hamstring Exercise Intervention Volume on Eccentric Strength and Muscle Architecture Adaptations: A Systematic Review and Meta-analyses

PMID

31502142

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 9

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	No
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	No
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	No
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Effects of Physical Exercise Training in the Workplace on Physical Fitness: A Systematic Review and Meta-analysis

PMID

31494864

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 9

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	No
Methodological rigor	Methods: How many languages were considered for study eligibility?	2
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes

Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Acute Effects of Foam Rolling on Range of Motion in Healthy Adults: A Systematic Review with Multilevel Meta-analysis

PMID

31628662

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 10

Note: The COVID-19 pandemics we are going through is very challenging and totally unprecedented. However, through it we can see that science conducted in an open, transparent and reproducible way is more than an ideal, it is a necessity. In this sense, we decided to keep our activities. However, we emphasize this evaluation was possibly not reviewed/questioned by the article authors due to the moment we are all going through. Thank you for your time and consideration.
SEES Initiative team.

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PROSPERO
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	No
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	No
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	2
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes

Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Does not apply
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Does not apply
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	No
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

The Effects of Interval and Continuous Training on the Oxygen Cost of Running in Recreational Runners: A Systematic Review and Meta-analysis

PMID

31606879

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 10

Note: The COVID-19 pandemics we are going through is very challenging and totally unprecedented. However, through it we can see that science conducted in an open, transparent and reproducible way is more than an ideal, it is a necessity. In this sense, we decided to keep our activities. However, we emphasize this evaluation was possibly not reviewed/questioned by the article authors due to the moment we are all going through. Thank you for your time and consideration.
SEES Initiative team.

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes

Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Running to Lower Resting Blood Pressure: A Systematic Review and Meta-analysis

PMID

31677122

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 11

Note: The COVID-19 pandemics we are going through is very challenging and totally unprecedented. However, through it we can see that science conducted in an open, transparent and reproducible way is more than an ideal, it is a necessity. In this sense, we decided to keep our activities. However, we emphasize this evaluation was possibly not reviewed/questioned by the article authors due to the moment we are all going through. Thank you for your time and consideration.
SEES Initiative team.

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes - Registered in PROSPERO
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	No statement
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes

Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Does not apply
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, ONLY for the study and/or outcome level (review processes not mentioned)
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Efficacy of School-Based Interventions for Improving Muscular Fitness Outcomes in Adolescent Boys: A Systematic Review and Meta-analysis

PMID

31729638

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 11

Note: The COVID-19 pandemics we are going through is very challenging and totally unprecedented. However, through it we can see that science conducted in an open, transparent and reproducible way is more than an ideal, it is a necessity. In this sense, we decided to keep our activities. However, we emphasize this evaluation was possibly not reviewed/questioned by the article authors due to the moment we are all going through. Thank you for your time and consideration.
SEES Initiative team.

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes – Registered in PROSPERO
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	No
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	Yes
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes

Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	No
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	No
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Impact of Pre-exercise Hypohydration on Aerobic Exercise Performance, Peak Oxygen Consumption and Oxygen Consumption at Lactate Threshold: A Systematic Review with Meta-analysis

PMID

31728846

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 11

Note: The COVID-19 pandemics we are going through is very challenging and totally unprecedented. However, through it we can see that science conducted in an open, transparent and reproducible way is more than an ideal, it is a necessity. In this sense, we decided to keep our activities. However, we emphasize this evaluation was possibly not reviewed/questioned by the article authors due to the moment we are all going through. Thank you for your time and consideration.
SEES Initiative team.

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	No
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	No
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	2
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	No
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes

Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	No
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Does not apply
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	No
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

What are the Benefits and Risks Associated with Changing Foot Strike Pattern During Running? A Systematic Review and Meta-analysis of Injury, Running Economy, and Biomechanics

PMID

31823338

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 12

Note: The COVID-19 pandemics we are going through is very challenging and totally unprecedented. However, through it we can see that science conducted in an open, transparent and reproducible way is more than an ideal, it is a necessity. In this sense, we decided to keep our activities. However, we emphasize this evaluation was possibly not reviewed/questioned by the article authors due to the moment we are all going through. Thank you for your time and consideration.
SEES Initiative team.

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes – Registered in PROSPERO
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	No
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	No
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes

Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	No
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Does not apply
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	No
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

The Effect of Resistance Training in Women on Dynamic Strength and Muscular Hypertrophy: A Systematic Review With Meta-analysis

PMID

31820374

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 12

Note: The COVID-19 pandemics we are going through is very challenging and totally unprecedented. However, through it we can see that science conducted in an open, transparent and reproducible way is more than an ideal, it is a necessity. In this sense, we decided to keep our activities. However, we emphasize this evaluation was possibly not reviewed/questioned by the article authors due to the moment we are all going through. Thank you for your time and consideration.
SEES Initiative team.

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	No
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes

Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	Yes
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	Yes
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

The Minimum Effective Training Dose Required to Increase 1RM Strength in Resistance-Trained Men: A Systematic Review and Meta-Analysis

PMID

31797219

Journal

Sports Med

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 12

Note: The COVID-19 pandemics we are going through is very challenging and totally unprecedented. However, through it we can see that science conducted in an open, transparent and reproducible way is more than an ideal, it is a necessity. In this sense, we decided to keep our activities. However, we emphasize this evaluation was possibly not reviewed/questioned by the article authors due to the moment we are all going through. Thank you for your time and consideration.
SEES Initiative team.

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	Yes – Registered in PROSPERO
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes

Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	No
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	Yes
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	Yes
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs

Our team

Akemy Neubert Kamitoyo

Pontifícia Universidade Católica do Rio Grande do Sul

Andresa Ignácio

Universidade Federal do Rio Grande do Sul

Angélica T. De Nardi

Universidade Federal do Rio Grande do Sul

Bruna Goés Moraes

Pontifícia Universidade Católica do Rio Grande do Sul

Cíntia E. Botton

Universidade Federal de Pelotas

Daniel Umpierre

Universidade Federal do Rio Grande do Sul

Douglas dos Santos Soares

Universidade Federal do Rio Grande do Sul

Leony Morgana Galliano

Hospital de Clínicas de Porto Alegre

Lucas Helal

Universidade do Extremo Sul Catarinense

Lucas P. Santos

Hospital de Clínicas de Porto Alegre

Luiza Isnardi Cardoso Ricardo

Universidade Federal de Pelotas

Marcelo R. dos Santos

Instituto do Coração – FMUSP

Nórton L. Oliveira

Hospital de Clínicas de Porto Alegre

Raíssa Borges Monteiro

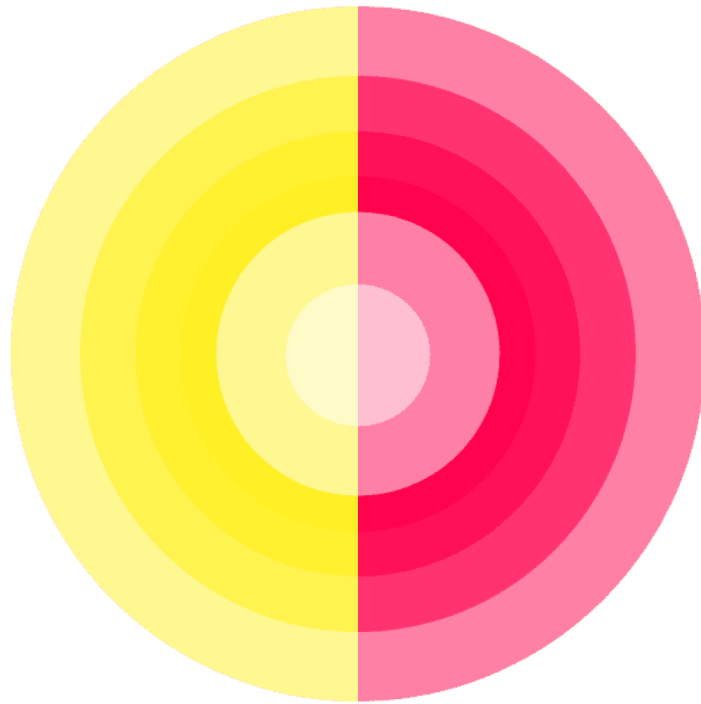
Universidade do Vale do Rio dos Sinos

Tainá Silveira Alano

Universidade Federal de Ciências da Saúde de Porto Alegre

Faculty director - **Daniel Umpierre**

Technical director - **Nórton L. Oliveira**



STRENGTHENING THE EVIDENCE IN EXERCISE SCIENCES
The SEES Initiative

Universidade Federal do Rio Grande do Sul
Hospital de Clínicas de Porto Alegre
sees.initiative@gmail.com

www.sees-initiative.org