

Table S2: Authors' judgment for risk of bias assessment of included RCTs.

Campbell et al. 2017	Risk of bias	Author judgment
Random sequence generation (selection bias)	Unclear	Quote: The patient group was randomly divided into two groups. Comment: Authors did not report the way of randomization.
Allocation concealment (selection bias)	Unclear	Comment: Authors did not report the way of allocation.
Blinding of participants and personnel (performance bias)	low	Comment: Authors report that the personnel were blinded.
Blinding of outcome assessment (detection bias)	Low	Comment: Study staff was blinded.
Incomplete outcome data (attrition bias)	Low	Comment: Authors reported dropout. All dropped patients were reported.
Selective reporting (reporting bias)	Low	Comment: All outcomes of interest were reported.
Other bias	Low	No other bias.

Carter et al. 2016	Risk of bias	Author judgment
Random sequence generation (selection bias)	Low	Quote: Randomization occurred in blocks of four using Computer-generated numbers to determine intervention.
Allocation concealment (selection bias)	Low	Quote: Group placement was kept in sealed envelopes and opened by the study coordinator in the order in which participants completed baseline measures.
Blinding of participants and personnel (performance bias)	Unclear	Comment: Authors did not report if the personnel were blinded.
Blinding of outcome assessment (detection bias)	Unclear	Comment: Authors did not report if the assessors were blinded.
Incomplete outcome data (attrition bias)	Low	Comment: All the patients completed the study period
Selective reporting (reporting bias)	Low	Comment: All outcomes of interest were reported
Other bias	Low	No other bias.

Fairey et al. 2005	Risk of bias	Author judgment
Random sequence generation (selection bias)	Low	Quote: Patients were block randomized to an exercise or control group using a random-numbers table.
Allocation concealment (selection bias)	High	Quote: A research assistant generated the allocation sequence and the project director assigned participants to groups.
Blinding of participants and personnel (performance bias)	low	Quote: Authors reported that the personnel were blinded.
Blinding of outcome assessment (detection bias)	Low	Quote: Laboratory staff and those who assessed the trial end points were blinded to treatment assignment.
Incomplete outcome data (attrition bias)	Low	Comment: Authors reported dropout. All dropped patients were reported
Selective reporting (reporting bias)	Low	Comment: All outcomes of interest were reported.
Other bias	Low	No other bias.

Thomas et al. 2013	Risk of bias	Author judgment
Random sequence generation (selection bias)	Unclear	Comment: Authors did not report the way of randomization.
Allocation concealment (selection bias)	Unclear	Comment: Authors did not report the method of allocation concealment.
Blinding of participants and personnel (performance bias)	Unclear	Comment: Authors did not report if the personnel were blinded
Blinding of outcome assessment (detection bias)	Unclear	Comment: Authors did not report if the assessors were blinded
Incomplete outcome data (attrition bias)	Low	Comment: All the patients completed the study period
Selective reporting (reporting bias)	Low	Comment: All expected outcomes were reported.
Other bias	Low	No other bias

Irwin et al. 2008	Risk of bias	Author judgment
Random sequence generation (selection bias)	Low	Quote: Randomization was performed by using a random number generation.
Allocation concealment (selection bias)	Low	Quote: group assignment was placed in a sealed envelope, which was opened by the study coordinator at the time of randomization
Blinding of participants and personnel (performance bias)	Unclear	Comment: Authors did not report if patients and personnel were blinded
Blinding of outcome assessment (detection bias)	Low	Quote: The same data that were collected at the baseline visit were collected in a similar manner at 6 months post randomization by staff blinded to the participant's group
Incomplete outcome data (attrition bias)	Low	Comment: Authors reported dropout. All dropped patients were reported
Selective reporting (reporting bias)	Low	Comment: All expected outcomes were reported.
Other bias	Low	No other bias.

Irwin et al. 2009	Risk of bias	Author judgment
Random sequence generation (selection bias)	Low	Quote: Randomization was performed by using a random number generation
Allocation concealment (selection bias)	Unclear	Comment: After completion of all baseline measures, each participant was randomly assigned to either the exercise or usual care group using a random number generator.
Blinding of participants and personnel (performance bias)	Unclear	Comment: Authors did not report if patients and personnel were blinded.
Blinding of outcome assessment (detection bias)	Low	Quote: Body composition was assessed by one radiologist blinded to the intervention group of the participants.
Incomplete outcome data (attrition bias)	Low	Comment: Participants were grouped according to the intention-to-treat procedure in which all participants were grouped according to their intervention assignment at randomization.
Selective reporting (reporting bias)	Low	Comment: All expected outcomes were reported.
Other bias	Low	No other bias.

Irwin et al. 2009 (2)	Risk of bias	Author judgment
Random sequence generation (selection bias)	Low	Quote: After completion of all baseline measures, each participant was randomly assigned to either the exercise or usual care group using a random number generation.
Allocation concealment (selection bias)	Unclear	Comment: Authors did not report the way of allocation.
Blinding of participants and personnel (performance bias)	Unclear	Comment: Authors did not report if patients and personnel were blinded.
Blinding of outcome assessment (detection bias)	Low	Quote: All DEXA scans were evaluated by one radiologist blinded to the intervention group of the participant.
Incomplete outcome data (attrition bias)	Low	Comment: Participants were grouped according to the intention-to-treat procedure in which all participants were grouped according to their intervention assignment at randomization.
Selective reporting (reporting bias)	Low	Comment: All expected outcomes were reported.
Other bias	Low	No other bias.

Jones et al. 2012	Risk of bias	Author judgment
Random sequence generation (selection bias)	Low	Quote: Randomization to the exercise or usual care group occurred after completion of all baseline measures using a random number generation.
Allocation concealment (selection bias)	Unclear	Comment: Authors did not report the way of allocation.
Blinding of participants and personnel (performance bias)	Low	Quote: Laboratory personnel were blinded to intervention group.
Blinding of outcome assessment (detection bias)	Low	Quote: All DEXA scans were evaluated by 1 radiologist blinded to the intervention group of the participant.
Incomplete outcome data (attrition bias)	Low	Quote: The t tests and generalized linear models (GLM) were used to assess intervention effects according to the intent-to-treat principle.
Selective reporting (reporting bias)	Low	Comment: All expected outcomes were reported.
Other bias	Low	No other bias.

Latka et al. 2009	Risk of bias	Author judgment
Random sequence generation (selection bias)	Low	Quote: Participants were randomly assigned to either the exercise or usual care group using a random number generation.
Allocation concealment (selection bias)	Unclear	Comment: Authors did not report the way of allocation.
Blinding of participants and personnel (performance bias)	Unclear	Comment: Authors did not report if personnel were blinded.
Blinding of outcome assessment (detection bias)	Low	Quote: All DEXA scans were evaluated by 1 radiologist blinded to the intervention group of the participant.
Incomplete outcome data (attrition bias)	Low	Quote: All the patients completed the study period.
Selective reporting (reporting bias)	Low	Comment: All outcomes of interest were reported.
Other bias	Low	No other bias

Murtezani et al. 2014	Risk of bias	Author judgment
Random sequence generation (selection bias)	Low	Quote: Participants were randomly assigned to either the exercise or usual care group using a random number generation.
Allocation concealment (selection bias)	Low	Quote: Participants were randomly assigned to either the exercise or usual care group using a random number generation.
Blinding of participants and personnel (performance bias)	Unclear	Comment: Authors did not report personnel were blinded.
Blinding of outcome assessment (detection bias)	Low	Quote: The assessor was blinded with regard to the allocation of participants into the treatment groups.
Incomplete outcome data (attrition bias)	Low	Comment: Authors reported dropout. All dropped patients were reported
Selective reporting (reporting bias)	Low	Comment: All outcomes of interest were reported.
Other bias	Low	No other bias

Roveda et al. 2016	Risk of bias	Author judgment
Random sequence generation (selection bias)	Unclear	Comment: Authors did not report the way of randomization.
Allocation concealment (selection bias)	low	Quote: The patient group was randomly divided into two groups.
Blinding of participants and personnel (performance bias)	Unclear	Comment: Authors did not report if personnel were blinded.
Blinding of outcome assessment (detection bias)	Unclear	Comment: Authors did not report if outcome assessors were blinded.
Incomplete outcome data (attrition bias)	Low	Comment: Authors reported dropout. All dropped patients were reported
Selective reporting (reporting bias)	Low	Comment: All outcomes of interest were reported.
Other bias	Low	No other bias

Saarto et al. 2012	Risk of bias	Author judgment
Random sequence generation (selection bias)	unclear	Quote: Authors did not report the way of randomization
Allocation concealment (selection bias)	low	Quote: A computer-generated randomization schedule was used to allocate the patients to either the exercise intervention or control arm. The study nurse performed the randomization after the baseline visit.
Blinding of participants and personnel (performance bias)	High	Quote: This study is a prospective, non-blinded randomized two-arm phase III trial
Blinding of outcome assessment (detection bias)	Unclear	Quote: Authors did not report if assessors are blinded
Incomplete outcome data (attrition bias)	Low	Comment: Authors reported dropout. All dropped patients were reported
Selective reporting (reporting bias)	Low	Comment: All outcomes of interest were reported.
Other bias	Low	No other bias

Segar et al. 1998	Risk of bias	Author judgment
Random sequence generation (selection bias)	Unclear	Quote: Subjects were assigned randomly to exercise, exercise plus behavior modification and control group. Comment: The authors did not mention the method of randomization.
Allocation concealment (selection bias)	Unclear	Comment: The authors did not mention the method of allocation.
Blinding of participants and personnel (performance bias)	Unclear	Comment: Authors did not report if personnel were blinded.
Blinding of outcome assessment (detection bias)	Unclear	Comment: Authors did not report if outcome assessors were blinded.
Incomplete outcome data (attrition bias)	Low	Comment: Authors reported dropout. All dropped patients were reported
Selective reporting (reporting bias)	Low	Comment: All outcomes of interest were reported.
Other bias	Low	No other bias

Tizdast et al. 2016	Risk of bias	Author judgment
Random sequence generation (selection bias)	Unclear	Quote: Participants were divided to three groups using a simple random method. Comment: The authors did not mention the method of randomization.
Allocation concealment (selection bias)	Unclear	Comment: The authors did not mention the method of allocation.
Blinding of participants and personnel (performance bias)	Unclear	Comment: Authors did not report if personnel were blinded.
Blinding of outcome assessment (detection bias)	Unclear	Comment: Authors did not report if outcome assessors were blinded.
Incomplete outcome data (attrition bias)	Low	Quote: All the patients completed the study period
Selective reporting (reporting bias)	Low	Comment: All outcomes of interest were reported.
Other bias	Low	No other bias