

Supplementary Table: Bias of included studies

Study	Randomization	Allocation	Participant and personnel blinding	Outcome blinding	Incomplete outcome data	Selective reporting	Other bias
Carter et al. 2016 <sup>29</sup>	Low risk: Participants were randomized using a computerized random-number generator	Not reported	Participants were not blinded. As intervention was diet, for which blinding was difficult	Outcome assessment was not reported but outcomes were detected entirely using machines, suggesting that the risk arising from blinding of outcome assessment was low	The details for participants' drop-out were mentioned, and attrition rate was not significantly different between groups. Data were analysed on an intention-to-treat basis	Primary and secondary outcomes were reported as per pre-defined objectives	Study was not stopped early, no additional participants were recruited, no interventions were contaminated, and appropriate tools were used for measuring outcomes
Carter et al. 2018 <sup>28</sup>	Participants were randomized using an online, generated, random-number allocation sequence	Not reported	Participants were not blinded. As intervention was diet, for which blinding was difficult	Outcome assessment was not reported but outcomes were detected entirely using machines, suggesting that the risk arising from blinding of outcome assessment was low	The details for participants' drop-out were mentioned, and attrition rate was not significantly different between groups. Data were analysed on an intention-to-treat basis	Primary and secondary outcomes were reported as per pre-defined objectives	Study was not stopped early, no additional participants were recruited, no interventions were contaminated, and appropriate tools were used for measuring outcomes
Cienfuegos et al. 2020 <sup>27</sup>	Participants were randomized by a stratified random sample (based on age, sex and body mass index)	Not reported	Not reported. Intervention was diet, for which blinding was difficult	Outcome assessment was not reported but outcomes were detected entirely using machines, suggesting that the risk arising from blinding of outcome assessment was low	The details for participants' drop-out were mentioned, and attrition rate was not significantly different between groups. Data were analysed on an intention-to-treat basis	Primary and secondary outcomes were reported as per pre-defined objectives	Study was not stopped early, no additional participants were recruited, no interventions were contaminated, and appropriate tools were used for measuring outcomes
Corley et al. 2018 <sup>30</sup>	Participants were randomized via a computer-based process	Used sequentially numbered sealed envelopes and the allocation was concealed from the staff member conducting enrolment	Participants and personnel were informed about the protocol at the first study visit. Intervention was diet, for which blinding was difficult	Outcome assessment was not reported but outcomes were detected entirely using machines, suggesting that the risk arising from blinding of outcome assessment was low	The details for participants' drop-out were mentioned, and attrition rate was not significantly different between groups. Data were analysed on an intention-to-treat basis	Primary and secondary outcomes were reported as per pre-defined objectives	Study was not stopped early, no additional participants were recruited, no interventions were contaminated, and appropriate tools were used for measuring outcomes
Harvie et al. 2013	Not reported	Group allocation was established by opaque, sealed envelopes that contained the assignment for each participant	Personnel performing laboratory measurements and inputting and analysing trial data were blinded to group allocations	Outcome assessment was not reported but outcomes were detected entirely using machines, suggesting that the risk arising from blinding of outcome assessment was low	The details for participants' drop-out were mentioned, and attrition rate was not significantly different between groups. Data were analysed on an intention-to-treat basis	Primary and secondary outcomes were reported as per pre-defined objectives	Study was not stopped early, no additional participants were recruited, no interventions were contaminated, and appropriate tools were used for measuring outcomes

Supplementary Table: Continued

Study	Randomization	Allocation	Participant and personnel blinding	Outcome blinding	Incomplete outcome data	Selective reporting	Other bias
Kahleova et al. 2014 <sup>32</sup>	Not reported	Not reported	Not reported. Intervention was diet, for which blinding was difficult	Outcome assessment was not reported but outcomes were detected entirely using machines, suggesting that the risk arising from blinding of outcome assessment was low	The details for participants' drop-out were mentioned, and attrition rate was not significantly different between groups. Data were analysed on an intention-to-treat basis	Primary and secondary outcomes were reported as per pre-defined objectives	Study was not stopped early, no additional participants were recruited, no interventions were contaminated, and appropriate tools were used for measuring outcomes
Li et al. 2017 <sup>33</sup>	Participants were randomly allocated to treatment groups following a non-stratified block-randomization with randomly using 'ranuni' pseudo-random-number generator	Used sealed, sequentially numbered opaque envelopes for allocation of participants	Participants and personnel were informed about the protocol. Intervention was diet, for which blinding was difficult	Outcome assessment was not reported but outcomes were detected entirely using machines, suggesting that the risk arising from blinding of outcome assessment was low	The details for participants' drop-out were mentioned, and attrition rate was not significantly different between groups. Data were analysed on an intention-to-treat basis	Primary and secondary outcomes were reported as per pre-defined objectives	Study was not stopped early, no additional participants were recruited, no interventions were contaminated, and appropriate tools were used for measuring outcomes
SundfØr et al. 2018 <sup>34</sup>	Participants were randomized via a computer-generated random-number table	Used sealed, sequentially numbered opaque envelopes for allocation of participants	Participants and personnel were informed about the protocol. Intervention was diet, for which blinding was difficult	Outcome assessment was not reported but outcomes were detected entirely using machines, suggesting that the risk arising from blinding of outcome assessment was low	The details for participants' drop-out were mentioned, and attrition rate was not significantly different between groups. Data were analysed on an intention-to-treat basis	Primary and secondary outcomes were reported as per pre-defined objectives	Study was not stopped early, no additional participants were recruited, no interventions were contaminated, and appropriate tools were used for measuring outcomes
Williams et al. 1998 <sup>35</sup>	Not reported	Not reported	Not reported. Intervention was diet, for which blinding was difficult	Outcome assessment was not reported but outcomes were detected entirely using machines, suggesting that the risk arising from blinding of outcome assessment was low	The details for participants' drop-out were mentioned, and attrition rate was not significantly different between groups. Data were analysed on an intention-to-treat basis	Primary and secondary outcomes were reported as per pre-defined objectives	Study was not stopped early, no additional participants were recruited, no interventions were contaminated, and appropriate tools were used for measuring outcomes
Wing et al. 1991 <sup>36</sup>	Not reported	Not reported	Not reported. Intervention was diet, for which blinding was difficult	Outcome assessment was not reported but outcomes were detected entirely using machines, suggesting that the risk arising from blinding of outcome assessment was low	The details for participants' drop-out were mentioned, and attrition rate was not significantly different between groups. Data were analysed on an intention-to-treat basis	Primary and secondary outcomes were reported as per pre-defined objectives	Study was not stopped early, no additional participants were recruited, no interventions were contaminated, and appropriate tools were used for measuring outcomes
Wing et al. 1994 <sup>22</sup>	Not reported	Not reported	Not reported. Intervention was diet, for which blinding was difficult	Outcome assessment was not reported but outcomes were detected entirely using machines, suggesting that the risk arising from blinding of outcome assessment was low	The details for participants' drop-out were mentioned, and attrition rate was not significantly different between groups. Data were analysed on an intention-to-treat basis	Primary and secondary outcomes were reported as per pre-defined objectives	Study was not stopped early, no additional participants were recruited, no interventions were contaminated, and appropriate tools were used for measuring outcomes