Appendix 3: Assessment of study quality using the Heyland Methodological Quality Score[23]*

Study (reference)	Methods†			Sample‡			Intervention§			
	Randomization (n/2)	Blinding (n/1)	Analysis (n/2)	Selection (n/1)	Compatability (n/1)	Follow-up (n/1)	Protocol (n/1)	Co-interventions (n/2)	Crossovers (n/2)	Total score (n/13)
Abete et al. 2009 (1)	1	0	2	1	1	1	0	1	0	7
Abeysekara et al. 2012 (2)	2	0	0	1	1	0	1	1	0	6
Anderson et al. 1984 (3)	1	0	2	0	1	1	1	2	0	8
Anderson et al. 1990 (4)	1	0	0	1	1	0	1	2	0	6
Belski et al. 2011 (5)	2	1	0	1	1	0	1	2	0	8
Cobiac et al. 1990 (6)	1	0	2	0	1	1	1	2	0	8
Duane et al. 1997 (7)	1	0	2	0	1	1	1	2	0	8
Finley et al. 2007 (8)	1	0	0	1	1	0	1	2	0	6
Gormley et al. 1979 (9)	1	0	0	0	1	0	0	1	0	3
Gravel et al. 2010 (10)	2	0	0	1	1	0	0	2	0	6
Hermsdorff et al. 2011 (11)	1	0	2	0	1	1	1	2	0	8
Hodgeson et al. 2010 (12)	2	0	0	1	1	0	1	2	0	7
Jenkins et al. 2012 (13)	1	0	2	1	1	0	1	2	0	8
Jiminez-Cruz et al. 2004 (14)	1	0	2	1	1	1	1	2	0	9
Mackay et al. 1992 (15)	1	0	0	0	1	0	1	2	0	5
Marinangeli et al. 2011 (16)	1	0	0	1	1	0	1	2	0	6
Pittaway et al. 2006 (17)	1	0	0	0	1	0	1	2	0	5
Pittaway et al. 2007 (18)	1	0	0	0	1	0	1	2	0	5
Shams et al. 2008 (19)	1	0	2	0	1	1	0	2	0	7
Winham et al. 2007 (20)	2	0	0	1	1	0	1	2	0	7
Winham et al. 2007- COM (21)	1	0	0	1	1	0	1	2	0	6
Zhang et al. 2010 (22)	1	0	0	0	1	0	1	2	0	5

*The Heyland Methodological Quality Score[23] assigns a score of 0 or 1 or 0 to 2 over nine categories of quality related to study design, sampling procedures and interventions, for a total of 13 points. Trials given a score of 8 or higher were considered to be of high quality.
†Randomization = 2 points if randomized with the methods described, 1 point if randomized without the methods described or 0 points if neither randomized nor with the methods described. Blinding = 1 point if double-blind or 0 points if single-blinded or not blinded. Analysis = 2 points if intention-to-treat or no drop-outs, or 0 points if per-protocol with drop-outs.
‡Sample selection = 1 point if consecutive eligible or 0 points if preselected or indeterminate. Sample comparability = 1 point if comparable or 0 points if not comparable at baseline. Follow-up = 1 point if 100% or 0 points if < 100%.
§Intervention protocol = 1 point if reproducibly described or 0 points if poorly described. Co-interventions = 2 points if described and equal, 1 point if described but unequal or indeterminate, or 0 points if not described. Crossovers (where participants were switched from control to experimental intervention) = 2 points if ≥ 10%, 1 point if < 10% or 0 points if not described.

.

References

1. Abete I, Parra D, Martinez JA. Legume-, fish-, or high-protein-based hypocaloric diets: effects on weight loss and mitochondrial oxidation in obese men. *J Med Food* 2009;12:100-8.
2. Abeysekara S, Chilibeck PD, Vatanparast H, et al. A pulse-based diet is effective for reducing total and LDL-cholesterol in older adults. *Br J Nutr* 2012;108(Suppl 1):S103-10.
3. Anderson JW, Story L, Sieling B, et al. Hypocholesterolemic effects of oat-bran or bean intake for hypercholesterolemic men. *Am J Clin Nutr* 1984;40:1146-55.
4. Anderson JW, Gustafson NJ, Spencer DB, et al. Serum lipid response of hypercholesterolemic men to single and divided doses of canned beans. *Am J Clin Nutr* 1990;51:1013-9.
5. Belski R, Mori TA, Puddey IB, et al. Effects of lupin-enriched foods on body composition and cardiovascular disease risk factors: a 12-month randomized controlled weight loss trial. *Int J Obes (Lond)* 2011;35:810-9.
6. Cobiac L, McArthur R, Nestel PJ. Can eating baked beans lower plasma cholesterol? *Eur J Clin Nutr* 1990; 44:819-22.
7. Duane WC. Effects of legume consumption on serum cholesterol, biliary lipids, and sterol metabolism in humans. *J Lipid Res* 1997;38:1120-8.
8. Finley JW, Burrell JB, Reeves PG. Pinto bean consumption changes SCFA profiles in fecal fermentations, bacterial populations of the lower bowel, and lipid profiles in blood of humans. *J Nutr* 2007;137:2391-8.
9. Gormley TR, Kevany J, O'Donnell B, et al. Effect of peas on serum cholesterol levels in humans. *Int J Food Sci Technol* 1979;3:101-9.