

## Effect of soy and isoflavones on hormones in women: a systematic review and meta-analysis

Supplemental data Table S1. Quality of included studies

Study	Randomised	Masking of		Industry funding or involvement	Duration	Compliance assessed & reported	Isoflavones in intervention & control reported	Isoflavones analyzed	Dropouts	Risk of bias
		Participants	Outcome assessors							
Alekel 2000	Yes	Yes	Yes	None reported	Done	Partly done	Partly done	Unclear	Done	Low
Arjmandi 2003	Yes	Yes	Yes	Yes, funding from Protein Technologies Int.	Done	Not done	Partly done	Unclear	Done	Mod - high
Arjmandi 2005	Yes	Yes	Yes	Yes, funding from DrSoy Nutrition	Done	Partly done	Partly done	Unclear	Done	Mod - high
Aubertin-Leheudre 2007	Yes	Yes	Yes	None reported	Done	Not done	Partly done	Unclear	Partly done	Mod - high
Baird 1995	Yes	No	Yes	None reported	Done	Partly done	Partly done	Done	Done	Mod - high
Baum 1998	Yes	Yes	Yes	Yes, funding & authors from Protein Technologies Ltd	Done	Not done	Done	Done	Partly done	Mod - high
Brink 2008	Yes	Yes	Yes	None reported	Done	Done	Partly done	Done	Done	Low
Brooks 2004	Yes	Yes	Yes	None reported relevant to soy	Done	Partly done	Partly done	Unclear	Done	Low
Brown 2002	Yes	Yes	No	None reported	Not done	Done	Partly done	Done	Done	Mod - high
Cassidy 1995	No	Unclear	Unclear	None reported	Not done	Partly done	Partly done	Unclear	Done	Mod - high
Cheng 2007	Yes	Yes	Yes	Unclear: one or more authors employed by Karolinska Institutet, one disclosed involvement with KaraBio AB.	Done	Partly done	Partly done	Done	Partly done	Mod - high
Cuevas 2003	Yes	Yes	Yes	Yes, funded by Protein Technology International	Done	Partly done	Partly done	Unclear	Partly done	Mod - high
D'Anna 2007	Yes	Yes	Yes	None reported	Done	Partly done	Partly done	Unclear	Done	Low
Dewell 2002	Yes	Yes	Yes	Yes, funded by Archer Daniels	Done	Not done	Partly done	Unclear	Partly done	Mod - high
Duncan 1999 pre	Yes	Unclear	Unclear	None reported	Done	Partly done	Done	Unclear	Partly done	Mod - high
Duncan 1999 post	Yes	Yes	Unclear	None reported	Done	Not done	Done	Unclear	Done	Mod - high
Gann 2005 A (usual diet)	Yes	Unclear	Unclear	None reported	Done	Not done	Done	Unclear	Partly done	Mod - high
Gann 2005	Yes	Unclear	Unclear	None reported	Done	Not done	Done	Unclear	Partly done	Mod - high

<b>B (low fat diet)</b>										
<b>Gardner 2001</b>	Yes	Yes	Yes	Yes, funded by Shaklee Corp	Done	Done	Done	Done	Done	Mod - high
<b>Garrido 2006</b>	Yes	Yes	Yes	None reported	Done	Not done	Partly done	Done	Done	Low
<b>Han 2002</b>	Yes	Yes	Yes	None reported	Done	Not done	Done	Unclear	Partly done	Low
<b>Harkness 2004</b>	Yes	Yes	Yes	Unclear (MetroHealth Medical Centre)	Done	Done	Done	Unclear	Done	Mod - high
<b>Huang 2006</b>	Yes	No	No	Yes, part funded by Chia Hsin Food and Synthetic Fibre	Done	Not done	Partly done	Unclear	Not done	Mod - high
<b>Jayagopal 2002</b>	Yes	Yes	Yes	None reported	Done	Partly done	Done	Unclear	Done	Low
<b>Knight 2001</b>	Yes	Yes	Yes	Yes, funded by Protein Technologies Int	Done	Partly done	Done	Done	Done	Mod - high
<b>Kotsopoulos 2000 (PEARL)</b>	Yes	Yes	Yes	None reported	Done	Partly done	Partly done	Done	Partly done	Mod - high
<b>Kumar 2002</b>	Yes	Yes	Yes	None reported	Done	Partly done	Partly done	Unclear	Done	Low
<b>Lichtenstein 2002</b>	Yes	Yes	Yes	None reported	Done	Partly done	Done	Done	Done	Low
<b>Mackey 2000</b>	Yes	Yes	Yes	Yes, funded by Sanitarium Health Foods	Done	Not done	Partly done	Unclear	Partly done	Mod - high
<b>Martini 1999</b>	Yes	Unclear	Unclear	Yes, funded by Minnesota Soybean Research and Promotion Council	Not done	Partly done	Partly done	Unclear	Done	Mod - high
<b>Maskarinec 2002</b>	Yes	Yes	Yes	Yes, funding from Pharmavite Corp.	Done	Done	Done	Done	Partly done	Mod - high
<b>Maskarinec 2004</b>	Yes	No	No	Yes, one or more authors worked for private bodies	Done	Done	Partly done	Done	Done	Mod - high
<b>Murkies 1995</b>	Yes	Yes	Yes	None reported	Done	Partly done	Not done	Not done	Partly done	Mod - high
<b>Nahas 2004</b>	Yes	Yes	Yes	None reported	Done	Not done	Partly done	Unclear	Done	Low
<b>Nagata 1998</b>	Yes	No	Unclear	None reported	Not done	Done	Done	Done	Done	Mod - high
<b>Nettleton 2004</b>	Yes	Unclear	Unclear	None reported	Done	Partly done	Done	Unclear	Done	Mod - high
<b>Nikander 2003</b>	Yes	Yes	Yes	Yes, grants from Research Foundation of Orion Corporation, and Juho Vainio and Yrjö Jahnesson Foundations	Done	Partly done	Done	Unclear	Done	Mod - high
<b>Scambia 2000</b>	Yes	Yes	Yes	Yes, an author worked for Indena SpA	Done	Partly done	Partly done	Done	Partly done	Mod - high
<b>Spence 2005</b>	Yes	Yes	Unclear	Yes, funding by the Indiana Soybean Board	Done	Partly done	Partly done	Done	Done	Mod - high
<b>Squadrito 2002</b>	Yes	Yes	Yes	None reported	Done	Partly done	Partly done	Unclear	Partly done	Mod - high

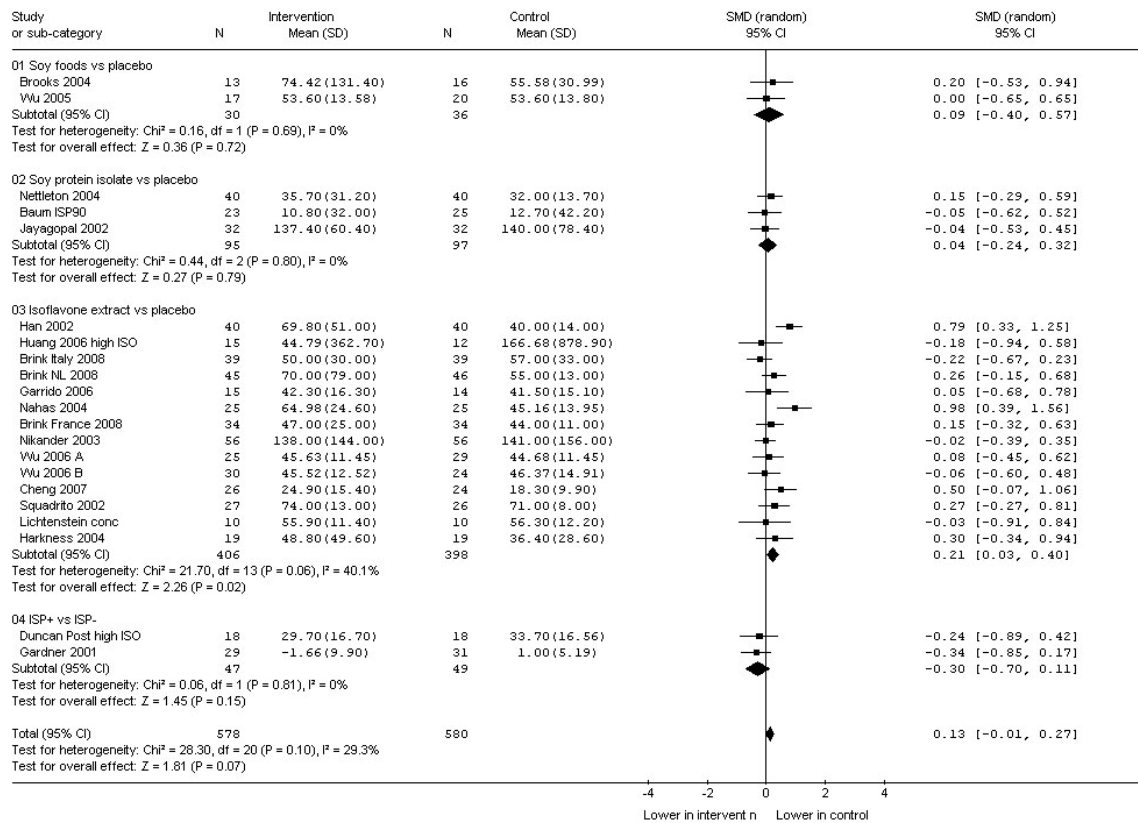
<b>Uesugi 2003</b>	Yes	Unclear	Unclear	Yes, all 3 authors from Fujicco Ltd	Done	Partly done	Done	Unclear	Partly done	Mod - high
<b>Uesugi 2004</b>	Yes	Yes	Yes	Yes, an author worked for MC Medical Inc	Done	Done	Done	Unclear	Partly done	Mod - high
<b>Upmalis 2000</b>	Yes	Yes	Yes	Yes, one or more authors employed by Advanced Care Products, who also funded	Done	Not done	Partly done	Unclear	Partly done	Mod - high
<b>Woods 2000</b>	Yes	Yes	Yes	None reported	Done	Not done	Not done	Unclear	Not done	Mod - high
<b>Wu 2005</b>	Yes	Yes	Unclear	None reported	Done	Done	Partly done	Done	Partly done	Mod - high
<b>Wu 2006 A&amp;B</b>	Yes	Yes	Unclear	Yes, funding from Fujicco Co, 1 author works for Fujicco Co., 1 for Saga Neutriceutical Research Inst.	Done	Partly done	Done	Unclear	Partly	Mod - high
<b>Zitterman 2004</b>	Yes	Unclear	Unclear	Yes, Danone Foundation	Not done	Partly done	Partly done	Done	Done	Mod - high

Trial quality characteristics assessed included:

- masking (separately) of participants and outcome assessors (coded as 'yes' where there was a clear and realistic attempt to mask, 'no' where not, or 'unclear'— success of masking was rarely checked in included studies);
- industry funding or involvement (coded as 'yes, industry funding', 'none reported' or 'unclear');
- duration (coded as 'done' for all post-menopausal studies of at least 4 weeks in duration, and pre-menopausal studies of at least 3 cycles duration or 'not done' for shorter pre-menopausal studies);
- assessment and reporting of compliance ('done' when compliance was both assessed and reported, 'partly done' when it was assessed but not reported or reported without any indication of the method used, and 'not done' when neither was addressed adequately);
- Isoflavone content (reported as 'done' when total isoflavone, genistein and daidzein contents reported in both intervention and control, aglycone or glycated form reported, 'partially done' when at some of the above completed, 'not done' when not);
- isoflavones analyzed ('done' when the intervention dose was checked and reported, or 'unclear' if not carried out or not reported); and
- dropouts (reported as 'done' when numbers randomized, completed and analyzed all clear, plus reasons for dropouts given (by intervention arm), 'partially done' when some of the above, 'not done' when not).

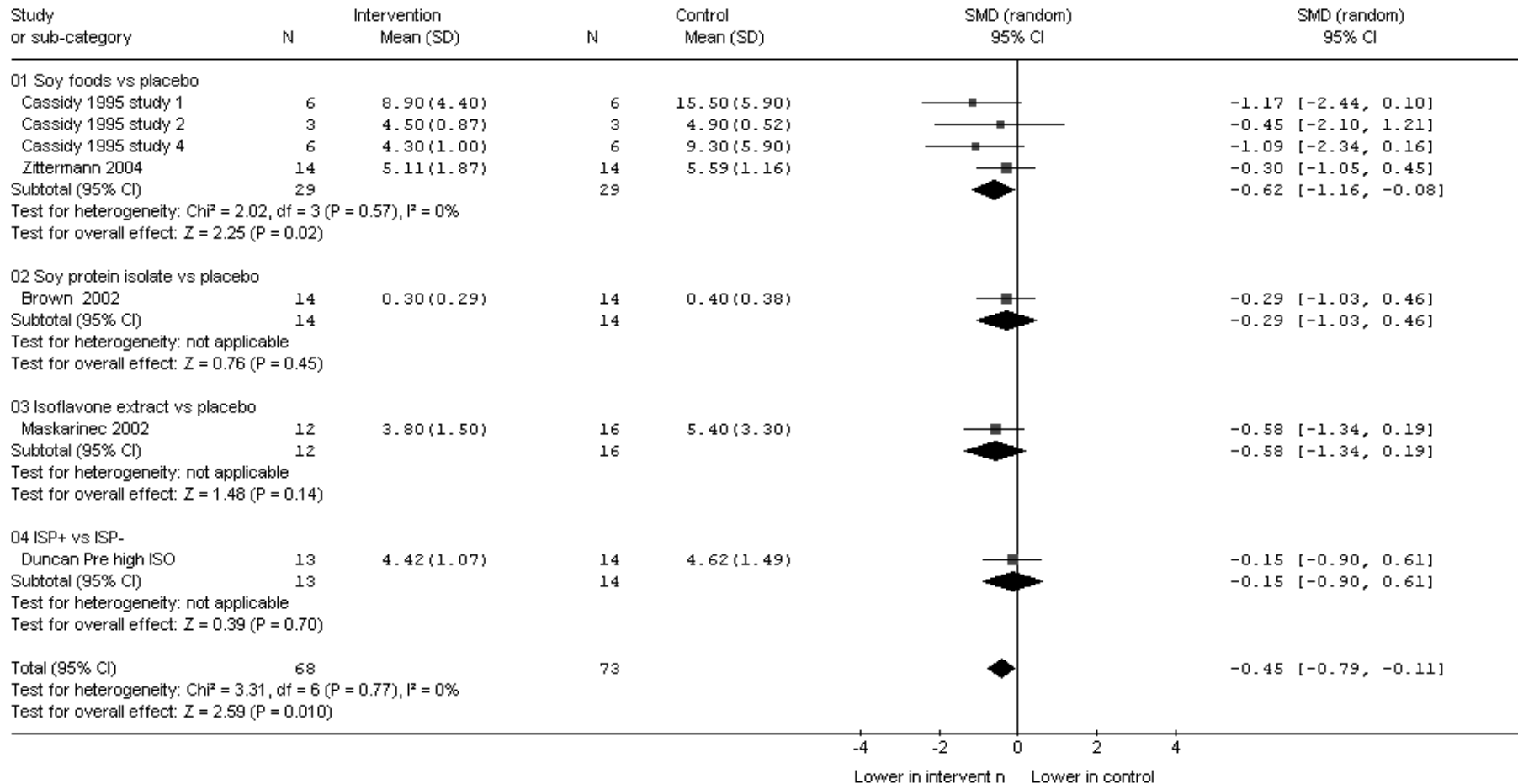
Trials were considered to be at low risk of bias if participant and outcome assessor blinding were all coded 'yes', industry funding was not reported, duration was done and dropouts 'done'. All other trials were considered at moderate or high risk of bias.

## Supplementary Figure 1. Effects of soy and isoflavones on circulating total estradiol concentrations in postmenopausal women (SMD analysis, units of standard deviation).



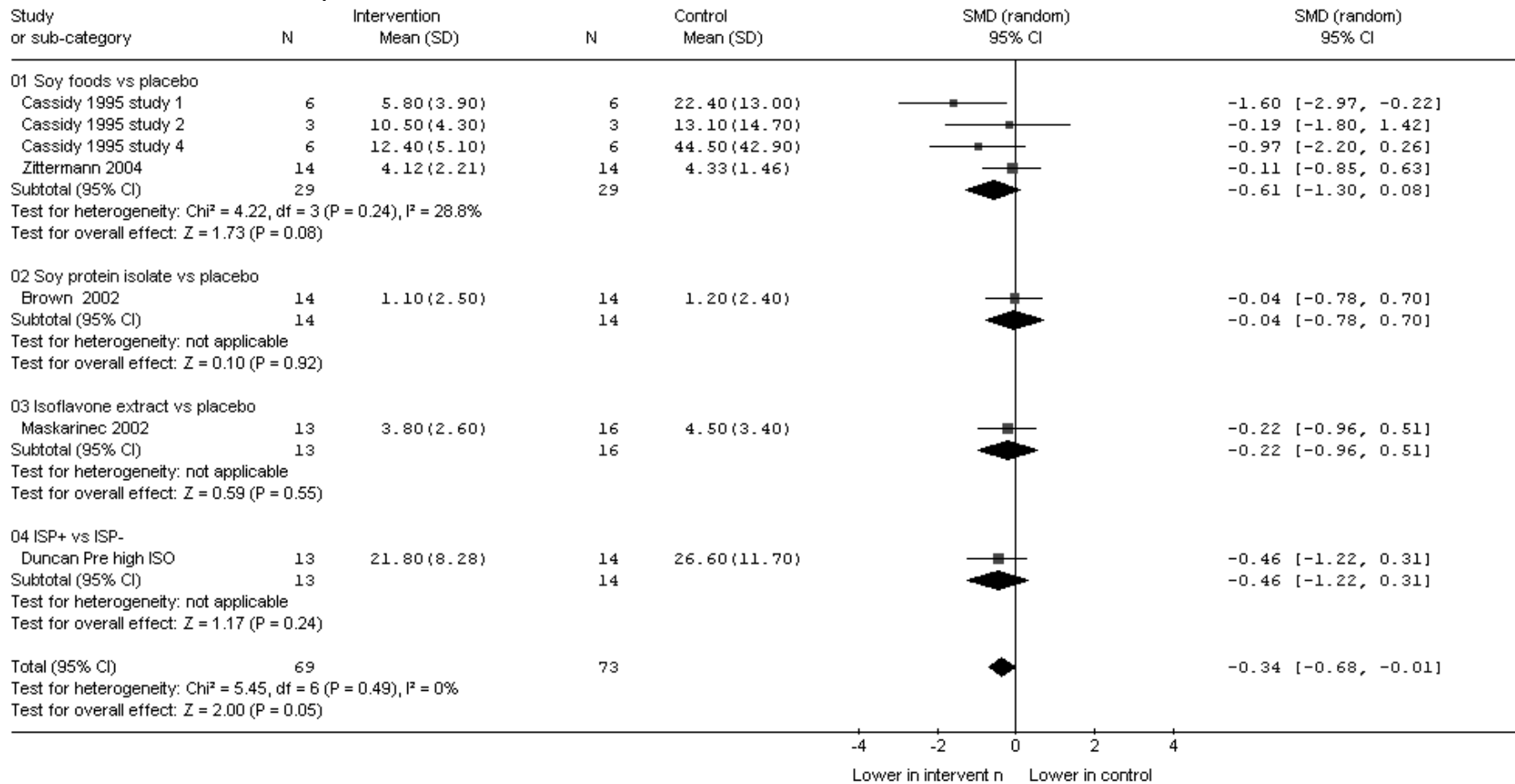
SMD = standardised mean difference, SD = standard deviation, 95% CI = 95% confidence interval.

**Supplementary Figure 2. Effects of soy and isoflavones on circulating FSH concentrations in premenopausal women (SMD analysis, units of standard deviation).**



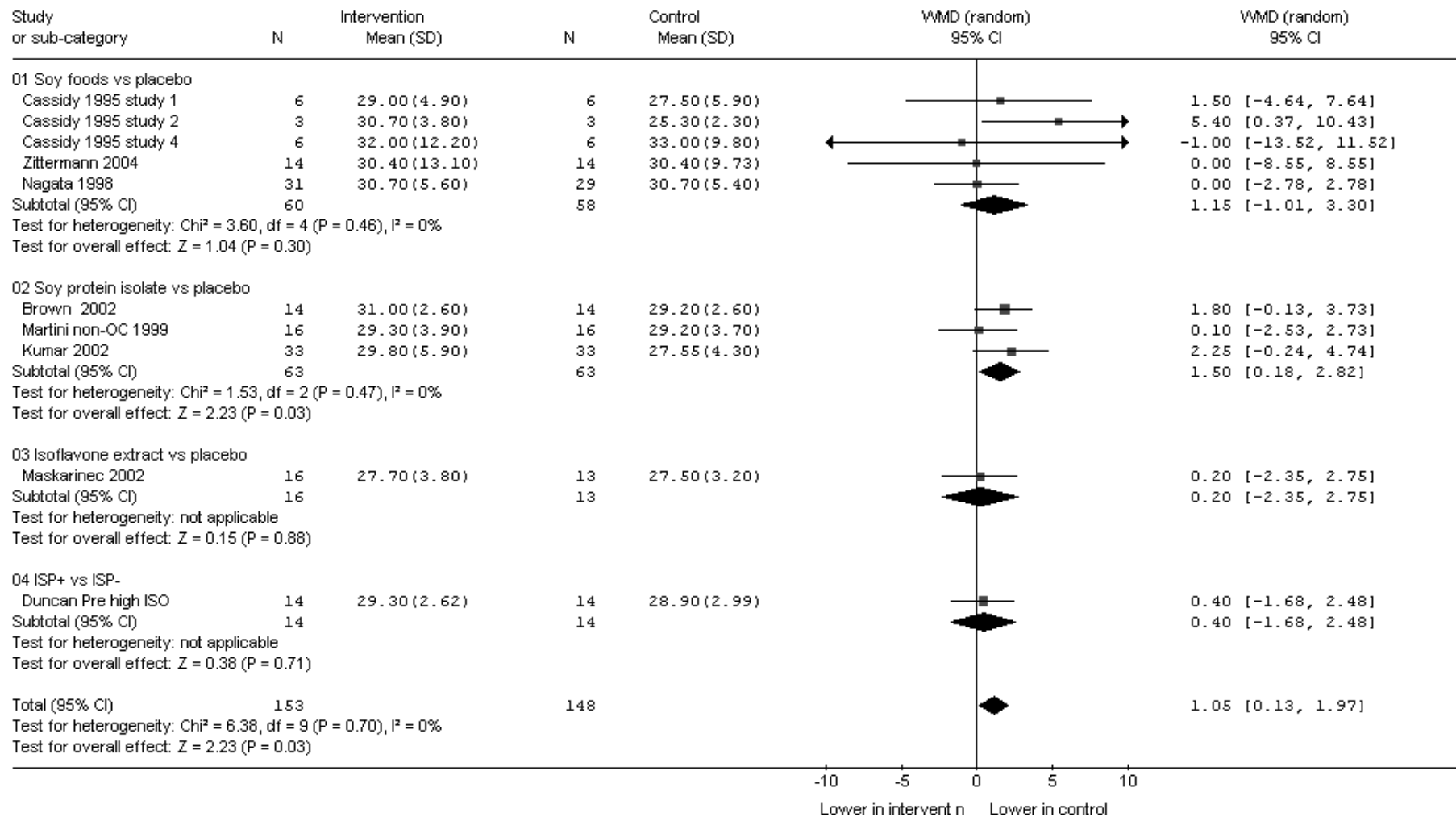
SMD = standardised mean difference, SD = standard deviation, 95% CI = 95% confidence interval.

**Supplementary Figure 3. Effects of soy and isoflavones on circulating LH concentrations in premenopausal women (SMD analysis, units of standard deviation).**



SMD = standardised mean difference, SD = standard deviation, 95% CI = 95% confidence interval.

**Supplementary Figure 4. Effects of soy and isoflavones on menstrual cycle length in premenopausal women (MD analysis, units are days).**



MD = (weighted) mean difference, SD = standard deviation, 95% CI = 95% confidence interval.