

WEB TABLE 1: Characteristics of studies with less than 30 subjects in the oat intervention group

Study	Country	Participants				Intervention design				
		Number	Sex (%F)	Age (y) & ethnicity	Health	RCT	Design	Length	Diet(s)	
<i>Low reporting quality</i>										
Abrahamsson et al., 1994 ⁽¹⁶⁾	Sweden	n=12 (oats) n=12 (wheat)	Women	20-46	Healthy	Yes	Crossover	5 weeks	376g/d bread buns containing oat bran or wheat bran (20g fibre)	
Anderson et al., 1984 ⁽¹⁷⁾	USA	n=10 (oats) n=10 (beans)	Men	34-66	HC	No	Parallel	21 days	100g/d oat bran or 115g/d dried beans after control diet	
Anderson et al., 1990 ⁽¹⁸⁾	USA	n=14	Men	46-70	High total cholesterol	No	Crossover	2 weeks	25g/d oat bran (cereal) or corn flakes	
Anderson et al., 1991 ⁽¹⁹⁾ Bridges et al., 1992 ⁽²⁰⁾	USA	n=10 (oats) n=10 (wheat)	Men	38-73	HC	Yes	Parallel	21 days	110g/d oat bran or 40g/d wheat bran	
Bremer et al., 1991 ⁽²¹⁾	New Zealand	n=12	M & F (58)	38-66	HL	Yes	Crossover	4 weeks	10-12/6 (M/F) slices/d of oat bran bread or wheat bran bread	
Davidson et al., 1991 ⁽²²⁾	USA	n=15 (farina) n=20 (OM-28) n=23 (OB-28) n=21 (OM-56) n=20 (OB-56) n=20 (OM-84) n=21 (OB-84)	M & F (43)	30-65	HC	Yes	Parallel	6 weeks	28g farina or 28g oatmeal (OM-28) or 28g oat bran (OB-28) or 56g oatmeal (OM-56) or 56g oat bran (OB-56) or 84g oatmeal (OM-84) or 84g oat bran (OB-84)	
Demark-Wahnefried et al., 1990 ⁽²³⁾	USA	n=15 (LFLC) n=18 (LFLC+OB) n=15 (OB) n=20 (POB)	M & F	20-65	HC	No	Parallel	12 weeks	LFLC or LFLC & 50g/d oat bran (LFLC+OB) or 50g/d oat bran or 42.5g/d processed oat bran (POB) cereal with β -glucan concentrated from oat bran	
Dubois et al., 1995 ⁽²⁴⁾	France	n=6	Men	20-27	Healthy NL	Yes	Crossover	2 weeks	40g/d oat bran or low fibre diet	

WEB TABLE 1 continued: Characteristics of studies with less than 30 subjects in the oat intervention group

Study	Country	Participants				Health	Intervention design			
		Number	Sex (%F)	Age (y) & ethnicity	RCT		Design	Length	Diet(s)	
Hegsted et al., 1993 ⁽²⁵⁾	USA	n=11	M & F (9)	19-57	HC Good health	Yes	Crossover	3 weeks	100g/d oat bran or stabilized rice bran	
Jenkins et al., 2008 ⁽²⁶⁾	Canada	n=28	M & F	38-75 87% European 3% Filipino, 3% East Indian 3% African 3% Hispanic	HL	Yes	Crossover	1 month	Additional 65g per 2000 kcal per day of oat bran bread or 454g/d strawberries	
Judd & Truswell, 1981 ⁽²⁷⁾	UK	n=10	M & F (40)	24-37		No	SC	21 days	125g/d rolled oats after control diet	
Kahn et al., 1990 ⁽²⁸⁾	USA	n=8 (immediate) n=8 (delay)	M & F (63) M & F (70)	Mean 53.25 Mean 51.00	HC 31% with type 2 diabetes	No	Parallel	3 weeks	80g/d oat bran (immediate) or no oat bran muffins for 3 weeks (control) then oat bran muffins for 3 weeks (delay)	
Kelley et al., 1994 ⁽²⁹⁾	USA	n=13	M & F (46)	50-84	HC Good health	No	SC	4 weeks	100g/d oat bran	
Kerckhoffs et al., 2003 ⁽³⁰⁾	The Netherlands	Study 1 n=25 (oat bran) n=23 (wheat)	M & F (56)	18-65	HC	Yes	Study 1 Parallel	Study 1 4 weeks	Study 1 ≥150g/d of bread & cookies rich in oat bran (≥28g oat bran & 12g oat bran concentrate in bread & 2.8g oat bran & 1.2g oat bran concentrate per cookie) or wheat fibre (≥10g in bread & 1g/cookie)	
		Study 2 n=25 from study 1	M & F (60)				Study 2 Crossover	Study 2 2 weeks	Study 2: 400ml/d orange juice with 28g oat bran & 12g oat bran concentrate or 12g wheat fibre	

WEB TABLE 1 continued: Characteristics of studies with less than 30 subjects in the oat intervention group

Study	Country	Participants				Intervention design				
		Number	Sex (%F)	Age (y) & ethnicity	Health	RCT	Design	Length	Diet(s)	
Kirby et al., 1981 ⁽³¹⁾	USA	n=8	Men	35-62	88% HC	No	Crossover	≥10 days	100g/d oat bran or no oat bran (control)	
Kretsch et al., 1979 ⁽³²⁾ Calloway & Kretsch, 1978 ⁽³³⁾	USA	n=6	Men	27-41 83% Caucasian 17% African American	Healthy	No	Crossover	15 days	Egg formula (control) alone or with toasted or untoasted oat bran (0.6g/kg body weight)	
Kristensen & Bugel, 2011 ⁽³⁴⁾	Denmark	n=24	M & F	22-30	Healthy	Yes	Crossover	2 weeks	102g oat bran/10MJ or low-fibre diet (control)	
Maki et al., 2007 ⁽³⁵⁾	USA	n=27	Men	24-54 67% non-Hispanic White 33% African American	Healthy	Yes	Crossover	2 weeks	76g/d oat bran cereal & 60g/d oatmeal or 81g/d Frosted Mini-Wheats cereal & 60g/d rolled wheat cereal Fat-loading meal test: high-fat shake & the intervention cereal	
Maki et al., 2007 ⁽³⁶⁾	USA	n=26 (oats) n=34 (control)	M & F (46) M & F (44)	63.0 ± 1.8 69% Caucasian 27% Black 1% other 57.1 ± 1.6y 56% Caucasian 44% Black	Elevated SBP &/or DBP	Yes	Parallel	12 weeks	NCEP TLC diet & 90g/d oat bran cereal, 60g/d oatmeal & 20g/d powdered form of oat β-glucan or NCEP TLC diet & 90g/d wheat-based cereal, 65g/d low-fibre hot cereal & 12g/d maltodextrin powder (control)	
Marlett et al., 1994 ⁽³⁷⁾	USA	n=9 ⁽³⁷⁾ n=5 ⁽¹⁰²⁾	Men	23.8 ± (SD) 2.2 23.4 ± (SD) 2.7	Healthy NL	No	Crossover	28 days	100g/d oat bran or low fibre diet	
Noakes et al., 1996 ⁽³⁸⁾	Australia	n=23	M & F (43)	44-64	Hypertriglycerid-aemic	Yes	Crossover	4 weeks	121/87g/d (M/F) oat bran or 74/50g/d (M/F) high-amylose (cornstarch & wheat) vs low-amylose starch diet	

WEB TABLE 1 continued: Characteristics of studies with less than 30 subjects in the oat intervention group

Study	Country	Participants				Intervention design			
		Number	Sex (%F)	Age (y) & ethnicity	Health	RCT	Design	Length	Diet(s)
Onning et al., 1998 ⁽³⁹⁾	Sweden	n=11 (cow's milk) n=12 (soya milk)	M & F (45) M & F (50)	23-54	Healthy	Yes	Crossover	4 weeks	1/0.75 l/d (M/F) of oat milk or medium-fat cow's milk, or of oat milk or soya milk
Robitaille et al., 2005 ⁽⁴⁰⁾	Canada	n=18 (oats) n=16 (control)	Women	22-53y		No	Parallel	4 weeks	28g/d oat bran vs no supplement (control)
Romero et al., 1998 ⁽⁴¹⁾	Mexico	n=24 (wheat) n=20 (psyllium) n=22 (oats)	Men	20-45	Normal & HC	Yes	Parallel	8 weeks	100g/d of cookies containing wheat bran, psyllium or oat bran in addition to reducing fat & cholesterol intake
Saltzman et al., 2001 ⁽⁴²⁾	USA	n=22 (oats) n=21 (control)	M & F (57) M & F (50)	19-30 & 64-72 22-30 & 65-78	Healthy	No	Parallel	6 weeks	Hypocaloric diet with or without 45g/d oats
Spiller et al., 1991 ⁽⁴³⁾	USA	n=13	M & F	59-70		Yes	Crossover	3 weeks	77g/d oat bran or 15g/d guar gum
Stewart et al., 1992 ⁽⁴⁴⁾	New Zealand	n=24	M & F (54)	21-67	HC Healthy	No	Crossover	6 weeks	50g/d oat bran or oat-free diet
Sturtzel et al., 2010 ⁽⁴⁵⁾	Austria	n=15 (oats) n=15 (control)		57-98	Multiple chronic diseases & receiving laxative therapy	No	Parallel	12 weeks	7-8g/d oat bran or habitual diet (control)
Turnbull & Leeds, 1987 ⁽⁴⁶⁾	UK	n=17	M & F (47)	23-73	Total cholesterol >6.0mmol/l	No	SC	1 month	150g/d rolled oats or 137g/d wheat
Whyte et al., 1992 ⁽⁴⁷⁾	Australia	n=23	Men	26-60	HC	Yes	Crossover	4 weeks	123g/d oat bran or 54g/d wheat bran

WEB TABLE 1 continued: Characteristics of studies with less than 30 subjects in the oat intervention group

Study	Country	Participants			Health	Intervention design			
		Number	Sex (%F)	Age (y) & ethnicity		RCT	Design	Length	Diet(s)
Zhang et al., 1992 ⁽⁴⁸⁾	Sweden	n=9	M & F (22)	27-67	Procto-colectomized for ulcerative colitis. With ileostomies. Good general health	Yes	Crossover	3 weeks	135g/d oat bran or 187g/d wheat flour
<i>High reporting quality</i>									
Beck et al., 2010 ⁽⁴⁹⁾	Australia	n=21 (moderate) n=19 (high) n=16 (control)	Women	19-45	General good health	Yes	Parallel	3 months	5-6g/d oat bran β -glucan (moderate) or 8-9g/d oat bran β -glucan (high) or high fibre, no oat bran β -glucan (control)
Davy et al., 2002 ⁽⁵⁰⁾ Davy et al., 2002 ⁽⁵¹⁾	USA	n=18 (oats) n=18 (wheat)	Men	50-75	Elevated SBP &/or DBP	Yes	Parallel	12 weeks	60g oatmeal & 76g oat bran or 60g whole wheat cereal & 81g frosted mini-wheats
de Oliveira et al., 2003 ⁽⁵²⁾	Brazil	n=17 (oats) n=16 (apples) n=16 (pears)	Women	30-50	HC	No	Parallel	10 weeks	60g/d oat cookies or 300g/d apples or pears
Frank et al., 2004 ⁽⁵³⁾	Sweden	n=22	M & F (50)	30-65	HC Healthy	No	Crossover	3 weeks	4 rolls/d of yeast-leavened oat bran bread with partially degraded β -glucan (6g/d) with molecular weight 217 or 797 kDa as part of normal diet
Gerhardt et al., 1998 ⁽⁵⁴⁾	USA	n=14 (rice bran) n=13 (oat bran) n=17 (rice starch)	M & F (48)	32-64 Predominantly Caucasians	HC Healthy	Yes	Parallel	6 weeks	84g/d of oat bran or heat-stabilized full-fat rice bran or rice starch
Gold & Davidson, 1988 ⁽⁵⁵⁾	USA	n=19 (oats) n=53 (wheat/wheat & oats)	M & F (21) M&F (30)	26.1 \pm 0.8 25.6 \pm 0.4	Healthy	Yes	Parallel	28 days	34g oat bran or 23g wheat bran & whole wheat flour or 11g wheat bran, whole wheat flour & 17g oat bran

WEB TABLE 1 continued: Characteristics of studies with less than 30 subjects in the oat intervention group

Study	Country	Participants				Intervention design				
		Number	Sex (%F)	Age (y) & ethnicity	Health	RCT	Design	Length	Diet(s)	
Keenan et al., 2002 ⁽⁵⁶⁾	USA	n=10 (oats) n=8 (control)	M & F (50) M & F (50)	27-59	Hyper-insulinaemic Hypertensive Generally healthy	Yes	Parallel	6 weeks	137g/d oat cereal vs 146g/d low fibre cereal (control)	
Kestin et al., 1990 ⁽⁵⁷⁾	Australia	n=24	Men	29-61	HC	Yes	Crossover	4 weeks	95g/d oat bran, 35g/d wheat-bran or 60g/d rice-bran	
Swain et al., 1990 ⁽⁵⁸⁾	USA	n=20	M & F (80)	23-49	Healthy	Yes	Crossover	6 weeks	100g/d oat bran or refined wheat	
Uusitupa et al., 1997 ⁽⁵⁹⁾ Uusitupa et al., 1992 ⁽⁶⁰⁾	Finland	n=20 (oats) n=16 (wheat)	M & F (50) M & F (38)	50 ± 6 45 ± 9	HC	No	Parallel	8 weeks	50g/d oat bran or 49g/d wheat bran	

HC, hypercholesterolaemic; HL, hyperlipidaemic; LFLC, low-fat, low-cholesterol diet; NL – normolipidaemic; SBP, systolic blood pressure; DBP, diastolic blood pressure; NCEP – national cholesterol education programme;

WEB TABLE 2: Characteristics of studies with 30-59 subjects in the oat intervention group

Study	Country	Participants				Intervention design			
		Number	Sex (%F)	Age (y) & ethnicity	Health	RCT	Design	Length	Diet(s)
<i>Low reporting quality</i>									
Kemppainen et al., 2009 ⁽⁶¹⁾	Finland	n=31	M & F (58)	16-64	Coeliac disease	No	Crossover	6 months	100g/d of kilned or unkilned oats
Leadbetter et al. 1991 ⁽⁶²⁾	New Zealand	n=40	M & F (50)	25-64	HC	No	Crossover	4 weeks	0g, 30g, 60g or 90g oat bran daily with usual diet
Mackay et al., (1992) ⁽⁶³⁾	New Zealand	n=39	M & F (44)	28-66	HC	No	Crossover	6 weeks	55g low-fibre oat bran or 55g high-fibre oat bran
Poulter et al., 1993 ⁽⁶⁴⁾	UK	n=59	M & F (71)	Mean 56.3		No	Crossover	4 weeks	≥50g/d Oat Bran Crispies or no oat cereal
Van Horn et al., 1991 ⁽⁶⁵⁾	USA	n=42 (oats) n=38 (control)	M & F (50) M & F (50)	22-76 22-67	HC	No	Parallel	8 weeks	57g/d instant oats or usual intake (control)
Winblad et al., 1995 ⁽⁶⁶⁾	Finland	n=59	Men	32-57	HC	No	Crossover	6 weeks	NCEP diet & 70g/d oat bran after NCEP diet
<i>High reporting quality</i>									
Charlton et al., 2012 ⁽⁶⁷⁾	Australia	n=30 (high) n=28 (low) n=32 (control)	M & F (50) M & F (61) M & F (53)	25-75 (M) Premenopausal (≥25) or 5y postmenopause (F)	HC	Yes	Parallel	6 weeks	60g/d rolled oat porridge & 36g oat-based cereal bars (high) or 60g/d oat flakes & puffed rice & wheat bars (low) or cornflakes & puffed rice & wheat bars (control)
He et al., 2004 ⁽⁶⁸⁾	USA	n=54 (oats) n=56 (wheat/corn)	M & F (59) M & F (61)	30-65, 52% African-American 30-65, 54% African-American	Healthy Higher than optimal blood pressure	Yes	Parallel	12 weeks	60g/d oat bran concentrate & 84g/d Oatmeal Squares or 93g/d refined wheat & 42g/d Corn Flakes

WEB TABLE 2 continued: Characteristics of studies with 30-59 subjects in the oat intervention group

Study	Country	Participants			Health	Intervention design			
		Number	Sex (%F)	Age (y) & ethnicity		RCT	Design	Length	Diet(s)
Kashtan et al., 1992 ⁽⁶⁹⁾	Canada	n=43 (oat) n=46 (wheat)	M & F (31) M & F (50)	28-79 29-74	Healthy Postpolyp- ectomy or with normal colon	Yes	Parallel	2 weeks	Oat bran vs wheat bran supplementation at 6.8g fibre per 1000kcal to a maximum of 16.4g/d fibre
Hegele et al., 1993 ⁽⁷⁰⁾		Hegele's study Oat: n=33 Wheat: n=34							
Katz et al., 2001 ⁽⁷¹⁾	USA	n=50	M & F (50)	35-76	Healthy	Yes	Crossover	1 month	60g/d oatmeal & 56g/d oat bran cereal vs 60g rolled whole wheat & 59g Mini-Wheat snack.
Katz et al., 2004 ⁽⁷²⁾	USA	n=30	M & F (47)	37-74	Dyslipid- aemic	No	Crossover	6 weeks	One of 4 treatments daily: 1) 60g oatmeal & oat bran cereal snack & 500mg vitamin C & 400mg α -tocopherol 2) oatmeal & placebo 3) 500mg vitamin C & 400mg α -tocopherol 4) placebo
Katz et al., 2005 ⁽⁷³⁾	USA	n=49	M & F (39)	36-73	Healthy	No	Crossover	6 weeks	60g/d uncooked whole oats or 2 eggs/d
Lepre and Crane., 1992 ⁽⁷⁴⁾	Australia	n=30	M & F (57)	28-69	HL	Yes	Crossover	8 weeks	60g/d oatbran or equivalent amount of fibre from wheat bran
Onning et al., 1999 ⁽⁷⁵⁾	Sweden	n=52	Men	52-70	HC	Yes	Crossover	5 weeks	0.75l/d oat milk deprived of insoluble fibre or 0.75l/d rice milk
Pins et al., 2002 ⁽⁷⁶⁾	USA	n=45 (oats) n=43 (wheat)	M & F (49) M & F (49)	33-67 97% Caucasian	Treated for hypertension	Yes	Parallel	12 weeks	60g/d oatmeal & 77g/d Oat Squares or 65g/d Hot Wheat Cereal & 81g/d Kellogg's Crispix

WEB TABLE 2 continued: Characteristics of studies with 30-59 subjects in the oat intervention group

Study	Country	Participants				Intervention design				
		Number	Sex (%F)	Age (y) & ethnicity	Health	RCT	Design	Length	Diet(s)	
Theuwissen & Mensink, 2007 ⁽⁷⁷⁾ Theuwissen et al., 2009 ⁽⁷⁸⁾	The Netherlands	n=42	M & F (52)	18-65	HC Healthy	Yes	Crossover	4 weeks	100g/d muesli with 5g oat β -glucan or 5g oat β -glucan & 1.5g plant stanol esters or 5g wheat fibre	
Van Horn et al., 2001 ⁽⁷⁹⁾	USA	n=32 (oats/milk) n=31 (wheat/soy) n=32 (oats/soy) n=32 (wheat/milk)	Women	44-85 91% White	HC	Yes	Parallel	6 weeks	1. 56g/d cooked oatmeal or 2oz oat bran cereal & 29g/d non-fat milk protein powder 2. cream of wheat or non-oat cereal & 29g/d soy protein powder 3. oats & 29g/d soy protein powder 4. cream of wheat or non-oat cereal & 29g/d non-fat milk protein powder	

HC, hypercholesterolaemic; NCEP – national cholesterol education programme; HL, hyperlipidaemic;

WEB TABLE 3: Characteristics of studies with at least 60 subjects in the oat intervention group

Study	Country	Participants			Health	Intervention design			
		Number	Sex (%F)	Age (y) & ethnicity		RCT	Design	Length	Diet(s)
<i>Low reporting quality</i>									
Berg et al., 2003 ⁽⁸⁰⁾	Germany	n=99 (oats) n=136 (control)	Men	30-65	With ↑ CHD risk	No	Parallel	4 weeks	35-50g/d oat bran or no additional oat bran (control)
Karmally et al., 2005 ⁽⁸¹⁾	USA	n=73 (oats) n=79 (corn)	M & F (68% F)	30-70 Hispanic Americans		Yes	Parallel	6 weeks	90g/d oat cereal or corn cereal
Keenan et al., 1992 ⁽⁸²⁾	USA	n=98	M & F	20-70		No	Sequential trial	6 weeks	56g/d oat bran cereal or 56g/d oat bran cereal & 1500mg/d wax-matrix CNA or wax-matrix CNA
Maki et al., 2010 ⁽⁸³⁾	USA	n=77 (oats)	M & F (75)	20-65 90% non-Hispanic white, 8% African American, 1% Hispanic, 1% Other	HC	Yes	Parallel	12 weeks	80g/d wholegrain oat breakfast cereal vs low-fibre breakfast/snack foods (control)
		n=67 (control)	M & F (82)	20-65 82% non-Hispanic white, 7% African American, 6% Hispanic, 4% Other					
Tighe et al., 2010 ⁽⁷⁾	UK	n=70 (wheat & oats) n=73 (wheat) n=63 (control)	M & F (52) M & F (48) M & F (49)	40-65	Healthy Signs of metabolic syndrome or HC	Yes	Parallel	12 weeks	1 portion/d whole wheat foods & 2 portions/d of oats or 3 portions/d whole wheat foods (70-80g wholemeal bread & 30-40g wholegrain cereals) or refined cereals & white bread (control)
Van Horn et al., 1988 ⁽⁸⁴⁾	USA	n=113 (oats) n=123 (control)	M & F (64) M & F (63)	30-65	Healthy NL	No	Parallel	8 weeks	56g oatmeal or no oat products (control)
Zhang et al., 2012 ⁽⁸⁵⁾	China	n=85 (oat) n=81 (wheat)	M & F (61) M & F (61)	35-70	HC	Yes	Parallel-	6 weeks	100g/d oatmeal or wheat noodles

WEB TABLE 3 continued: Characteristics of studies with at least 60 subjects in the oat intervention group

Study	Country	Participants		Age (y) & ethnicity	Health	Intervention design				
		Number	Sex (%F)			RCT	Design	Length	Diet(s)	
<i>High reporting quality</i>										
Johnston et al., 1998 ⁽⁸⁶⁾	USA	n=62 (oats) n=62 (corn)	M & F (39) M & F (35)	40-70		Yes	Parallel	6 weeks	90g whole grain oat cereal (Cheerios®) or cornflakes	
Keenan et al., 1991 ⁽⁸⁷⁾	USA	n=145	M & F	20-70	HC	Yes	Crossover	6 weeks	AHA-1 diet & 56g/d oat bran cereal or AHA-1 diet & 56g/d wheat-based cereal or AHA-1 diet alone	
Van Horn et al., 1986 ⁽⁸⁸⁾	USA	n=69 (oat bran) n=69 (oatmeal) n=70 (control)	M & F (54) M & F (46) M & F (43)	30-65	Healthy NL	No	Parallel	6 weeks	60g/d oat bran or 60g/d oatmeal or no oat products (control) after AHA diet	
Wolever et al., 2010 ⁽⁸⁹⁾	Canada	n=86 (oat)	M & F (50)	35-70	Healthy	Yes	Parallel	4 weeks	20g/d oat bran cereal or 21g/d wheat bran cereal	
Wolever et al., 2011 ⁽⁹⁰⁾	UK Australia	n=87 (wheat)	M & F (59)	81% Caucasian	TC ≥5.0 & ≤8.0 mmol/l LDL ≥3.0 & ≤5.0 mmol/l					

CHD – coronary heart disease; CNA, controlled-release nicotinic acid; HC – hypercholesterolaemic; NL – normolipidaemic; AHA, American Heart Association; TC, total cholesterol