thebmj Visual Summary

GOfER diagram (Graphical Overview for Evidence Reviews)

Use this diagram to compare characteristics of the included studies and participants, evidence quality and findings

ASSESSMENT OF EXPOSURE

DESIGN

Between participants | Crossover

BASELINE PARTICIPANT CHARACTERISTICS

STUDY QUALITY

STUDY FINDINGS META-ANALYSIS

Year	Study	Participants	Randomisation	Follow-up (Weeks 0–16)	Population	Age (years) Mean and SD* (15–55)	Sex* % (F–M)	Body mass index Mean and SD* (0–40)	Food diary	Self administered intake	Direct visual monitoring	Overall risk of bias	Study quality criteria (Randomisation / Blinding / Reporting / Other)	Mean difference between arms (Positive values favour no breakfast) Weight gain (kg) (-8 -4 0 4 8) / Daily energy intake (kJ) (-2500 0 2500 5000)
2017	LeCheminant	49	26 Breakfast; 23 No breakfast	4 Weeks	Healthy women who did not regularly consume breakfast aged 18-55				✓			High	? ? / ✗ ✗ ? / ✓ ✓ / ✓	
	Yoshimura	20	20 Breakfast; 20 No breakfast	2x24 hours	Healthy, habitual breakfast eating women					✓		High	? ? / ✗ ✗ ? / ✓ ✓ / ✓	
2016	Chowdhury	23	11 Breakfast; 12 No breakfast	6 weeks	Healthy obese community dwellers				✓			High	✓ ✓ / ✗ ✗ / ✓ ✓ / ✓	
2015	Clayton	10	10 Breakfast; 10 No breakfast	2x24 hours	Healthy active community dwellers who regularly consume breakfast						✓	High	? ? / ✗ ✗ ? / ? ? / ✓	
	Thomas	18 (Regular breakfast eaters 10: 6 Breakfast, 4 No breakfast; Regular breakfast skippers 8: 5 Breakfast, 3 No breakfast)		2x8 hours	Healthy overweight women who either regularly omitted or consumed breakfast	(Median and IQR*)					✓	High	✓ ? / ✗ ✗ ? / ? ? / ✓	Could not be included in meta-analysis because only median and interquartile ranges were reported
2014	Betts	33	16 Breakfast; 17 No breakfast	6 weeks	Healthy normal and overweight community dwelling adults					✓		High	✓ ✓ / ✗ ✗ / ✓ ✓ / ✓	
	Dhurandhar	204 (Regular breakfast eaters 109: 56 Breakfast, 53 No breakfast; Regular breakfast skippers 95: 45 Breakfast, 50 No breakfast)		16 Weeks	Healthy overweight and obese adult community dwellers				✓			High	✓ ✓ / ✗ ✓ / ✓ ? / ✓	Regular breakfast eaters; Regular breakfast skippers
	Geliebter	36	12 Breakfast 1; 12 Breakfast 2; 12 No breakfast	4 weeks	Healthy overweight adult community dwellers						✓	High	? ? / ✗ ✗ ✓ / ✗ ? / ✓	Breakfast 1; Breakfast 2
	Reeves	37	37 Breakfast; 37 No breakfast	2x7 days	Healthy normal and overweight adult community dwellers				✓			High	? ? / ✗ ✗ / ? ? / ✓	
2013	Levitsky	16	16 Breakfast; 16 No breakfast	2x24 hours	Healthy university students						✓	High	? ? / ✗ ✗ ? / ? ? / ✓	
2011	Astbury	12	12 Breakfast; 12 No breakfast	7 days	Healthy hospital workers (students and staff)						✓	High	? ? / ✗ ✗ / ✓ ? / ✓	
2005	Farshchi	10	10 Breakfast; 10 No breakfast	2x14 days	Lean healthy hospital workers (medical students and clinicians)						✓	High	? ? / ✗ ✗ ? / ? ? / ✓	
1992	Schlundt	52 (Regular breakfast eaters 36: 17 Breakfast, 19 No breakfast; Regular breakfast skippers 16: 8 Breakfast, 8 No breakfast)		12 weeks	Community dwelling obese women	(Range)			✓			High	? ? / ✗ ✗ ? / ✓ ? / ✓	Regular breakfast eaters; Regular breakfast skippers

SUMMARY OF FINDINGS

-8 -4 0 4 8 -2500 0 2500 5000

* SD=standard deviation; IQR=interquartile range; F=female; M=male