

PMD	First Author	Title	Year	Study Type	CVD	RF by CQ	Study Origin	Setting	Search Range	Data Sources	Study Eligibility Criteria	Number of Studies	Main Study Objective	Study Pop. (N)	Target Population	Patient Characteristics	Study Characteristics	Interv. Type	Specific Intervention Examined	Observational Relationship Assessed	Outcomes Measured	Treatment Effect and Statistical Significance	Main Reported Findings by Critical Question	Limitations of Studies Reviewed	Quality of MA
1018424	McArthur DB	Heart healthy eating behaviors of children following a school-based intervention: a meta-analysis	1998	MA	None	Q13 (RF9)	USA	Community	1980-1998	MEDLINE Footnotes from selected articles and health behavior texts Consultation and informal discussions at conferences Expert suggestions Browsing through journals, including Journal of School Health and Health Education Quarterly	Elementary school-based cardiovascular program with nutrition (heart healthy eating) as a component A quantifiable measure of eating behavior Children ages 9-11 yr (fourth and fifth graders) F = 1 degrees of freedom in the numerator (i.e., 2 groups were contrasted in the study) The individual was the unit of analysis	12 studies (9 articles)	Estimate the effects of school-based interventions on heart healthy eating behaviors of fourth and fifth grade students	NR	Pediatric/ Young Adults	Mean age (SD): 9.92 yr (0.61) African American: 17% Hispanic: 8% Native American: 17% White: 33% Race/ethnicity not indicated: 25% SES: Low: 42% Middle: 8% High: 17% Not indicated: 33%	Research design: Randomized experimental: 67% Time series: 25% Other: 8% Duration of study: 1-3 mo: 8% 3-5 mo: 8% 6 mo - 1 yr: 34% > 1 yr: 50%	Behavioral	School-based dietary interventions	N/A	Effect size of school-based interventions	Weighted average effect size for the 12 studies was d: 0.24; 95% CI: 0.174 to 0.301 (where d: 0.20 is considered a "small effect size"). Although small, it suggests there are positive effects of school-based interventions Heterogeneity exceeded critical value of 24.72 at the 0.05 level of significance (Q: 75.42)	Q13: School-based interventions had small but significant effects on heart healthy eating habits in children.	Outlier studies Publication bias Study sponsorship bias Insufficient racial/ethnic representation	
12079438	Ammerman AS	The efficacy of behavioral interventions to modify dietary fat and fruit and vegetable intake: a review of the evidence	2002	MA	None	Q13 (RF9)	USA	Multi Settings	1975-August 1999	MEDLINE EMBASE PsycINFO CINAHL AGELINE AGRICOLA Bibliographies of identified articles and reviews Expert advisory panel	Studies on humans (including children, adolescents, and adults) conducted in North America, Europe, and Australia Sample sizes ≥ 40 at follow-up Interventions with a dietary component that allowed diet to be freely chosen by participants (i.e., not controlled by the study) Noninstitutionalized populations RCTs and non-RCTs reporting follow-up data Articles reporting on fruit and vegetable consumption or dietary fat intake Studies reporting results based on dietary assessment techniques Exclusions: Infants Type 1 diabetes populations relying on regimented diets	25 studies (27 articles) Studies in pediatric populations: 3	Evaluate the overall effectiveness of behavioral dietary interventions in promoting dietary change related to chronic disease risk reduction and explore the relative effectiveness of specific intervention features and among different population subgroups	NR	Pediatric/ Young Adults	Healthy children	NR	Behavioral	Dietary interventions (e.g., individual counseling, support groups, classes)	N/A	Mean percent difference in change in total fat, F & V consumption between intervention and control groups	86% of studies reported a significant intervention effect on total fat intake and 97% on saturated fat intake Mean pooled percentage difference in change in total fat consumption between intervention and control group for school-based interventions with healthy children was 2.19 (95% CI: 1.49 to 2.89) Interventions conducted with younger populations (< 18 yr) were more likely to report significant decreases in total fat intake than those conducted with adults; however, the opposite pattern was evident for saturated fat intake. There was no evidence of an age effect for fruit and vegetable intake 17 of 22 studies (77%) reported significant increases in F & V intake, averaging +0.6 servings/d.	Q13: 86 and 87% of studies reported significant intervention effects on total fat intake Mean pooled percentage difference in change in total fat consumption between intervention and control group for school-based interventions with healthy children was 2.19 (95% CI: 1.49 to 2.89) 77% of studies reported a significant effect on F & V intake. Interventions conducted with younger populations (< 18 yr) were more likely to report significant decreases in total fat intake than those conducted with adults; however, the opposite pattern was evident for saturated fat intake. There was no evidence of an age effect for fruit and vegetable intake	Small number of pediatric studies Studies tended to be short-term and with limited follow-up Few studies were designed or reported their findings in a way that permitted interpretation of evidence for efficacy of interventions by population subgroups	
15867049	Owen CG	Effect of infant feeding on the risk of obesity across the life course: a quantitative review of published evidence	2005	MA	None	Q6 (RF3, RF8, RF13) Q11 (RF8) Q13 (RF8)	UK	Don't Know/NR	1966-September 2003	MEDLINE (1966-September 2003) EMBASE (1980-September 2003) Reference lists	Published articles, letters, abstracts, and review articles on infant feeding, CVD, CVD risk factors and growth Compared a measure of obesity (quantitatively or narratively) among breastfed and formula fed Studies conducted with human subjects	61 Included in OR analysis: 28 Included in sensitivity analysis: 33	Examine the influence of initial infant feeding on obesity in later life	OR analysis: 296,900 Sensitivity analysis: 12,505	Pediatric/ Young Adults	Studies in infants: 4 Studies in children: 23 Studies in adults: 2	NR	N/A	Infant feeding and risk of obesity	OR of being defined as obese or overweight among initially breastfed subjects compared with formula-fed subjects	28 of 29 study estimates related breastfeeding to a lower risk of obesity. Breastfeeding was associated with a reduced risk of obesity compared with formula feeding (OR: 0.87; 95% CI: 0.85 - 0.89). In 6 studies that adjusted for major potential confounding factors (parental obesity, maternal smoking, and social class), the inverse association was reduced (OR range: 0.86 - 0.93) but not abolished A longer duration of breastfeeding appeared to show a slightly greater protective effect on obesity. The protective effect of breastfeeding over formula feeding was greater among subjects breastfed for ≥ 2 mo (OR: 0.81; 95% CI: 0.77 - 0.84) compared with those breastfed for any duration (OR: 0.89; 95% CI: 0.86 to 0.91) in the same studies No clear evidence that the protective effect of breastfeeding is altered with increasing age of outcome measurement: ORs of 0.50 (95% CI: 0.26 - 0.94) for infants, 0.90 (95% CI: 0.87 - 0.92) for young children, 0.66 (95% CI: 0.60 - 0.72) for older children, and 0.80 (95% CI: 0.71 - 0.91) for adults were observed	Q6: A longer duration of breastfeeding appeared to show a slightly greater protective effect on obesity. No clear evidence that the protective effect of breastfeeding is altered with increasing age of outcome measurement Q11, Q13: Initial breastfeeding has a small protective effect against obesity in later life	Results based on observational studies Confounding, particularly by maternal factors, is an important possibility Association between breastfeeding and obesity could reflect selective reporting and/or publication		
17093156	Owen CG	Does breastfeeding influence risk of type 2 diabetes in later life? A quantitative analysis of published evidence	2006	MA	None	Q8 (RF6) Q11 (RF8) Q13 (RF6)	UK	Don't know/NR	MEDLINE: 1996-November 2004 EMBASE: 1980-November 2004 Web of Science: 1980-November 2004	Exclusions: Review articles or letters Studies presenting data duplicated in other reports OVID alert system Reference lists of eligible studies Studies not comparing formula and breastfed groups Studies on type 1 diabetes Studies considered the effects of maternal diabetes during pregnancy on breastfeeding	23 studies (24 reports)	Examine the influence of initial breastfeeding on type 2 diabetes and blood glucose and insulin concentrations	NR	Other	NR	NR	None	N/A	Breastfeeding and type 2 diabetes	OR for developing type 2 diabetes	7 studies (6 in adults, 1 in adolescents) related breastfeeding to a lower risk of type 2 diabetes. In 6/7 studies, the subjects who were breastfed showed a lower risk of type 2 diabetes than did those who were formula fed (pooled OR: 0.61; 95% CI: 0.44 to 0.85; P: 0.003) All 7 studies (4 in adults, 3 in children) studying the association between infant feeding and fasting blood glucose in later life showed little differences in mean glucose concentrations between feeding groups (pooled mean difference: -0.09 95% CI: -0.04 to 0.03; P: 0.7). No marked evidence of heterogeneity was observed between estimates (chi-square test P: 0.2) 6 studies (4 in adults, 2 in children) reported on the association between infant feeding and fasting insulin. 4/6 studies showed lower serum insulin concentrations in the breastfed subjects than in the formula-fed subjects. The overall pooled proportional difference for subjects in insulin was -3% (95% CI: -8% to 1%; P: 0.13), a difference which was similar in adults and children. No marked evidence of heterogeneity was observed (chi-square test P: 0.4) The pooled mean difference was similar in the 8 studies that measured blood glucose within the first 4 wk of life (7 after exclusive breastfeeding) and in 4 studies conducted in infancy that measured blood glucose 3 mo to 1 yr after birth (a group likely to have been weaned). It was also similar in 7 studies in which breastfeeding was exclusive and in the remaining 5 studies that were not	Q11, Q13: Early breastfeeding was consistently associated with a lower risk of type 2 diabetes in later life compared with those initially formula fed. In the studies in which further analysis was possible, the association was unaffected by adjustment for potential confounders In adults and children without diabetes, insulin concentrations were marginally lower in the breastfed subjects than in the formula-fed subjects, although glucose concentrations were similar. However, in infancy, breastfeeding was consistently related to lower concentrations of blood glucose and serum insulin than was formula feeding	Infant feeding exposure collected differently in studies Publication bias Confounding variables		
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