

評価対象論文リスト(要因:食物繊維、アウトカム:循環器病)

評価判定日:2024/11/8

①既存の系統的レビュー・メタ解析・統合解析

1	Ramezani F, Pourghazi F, Eslami M, et al. Dietary fiber intake and all-cause and cause-specific mortality: An updated systematic review and meta-analysis of prospective cohort studies. Clin Nutr. 2024;43(1):65-83. doi:10.1016/j.clnu.2023.11.005
2	Veronese N, Solmi M, Caruso MG, et al. Dietary fiber and health outcomes: an umbrella review of systematic reviews and meta-analyses. Am J Clin Nutr. 2018;107(3):436-444. doi:10.1093/ajcn/nqx082

②日本人集団の個別疫学研究

3	Katagiri R, Goto A, Sawada N, et al. Dietary fiber intake and total and cause-specific mortality: the Japan Public Health Center-based prospective study. Am J Clin Nutr. 2020;111(5):1027-1035. doi:10.1093/ajcn/nqaa002
4	Kokubo Y, Iso H, Saito I, et al. Dietary fiber intake and risk of cardiovascular disease in the Japanese population: the Japan Public Health Center-based study cohort. Eur J Clin Nutr. 2011;65(11):1233-1241. doi:10.1038/ejcn.2011.100
5	Eshak ES, Iso H, Date C, et al. Dietary fiber intake is associated with reduced risk of mortality from cardiovascular disease among Japanese men and women. J Nutr. 2010;140(8):1445-1453. doi:10.3945/jn.110.122358

■メタ解析、系統的レビュー

Author	Title	Year	Include study				Event (*Definition)	Design	Category	Relative risk (95% CI or p)	Weight	<u>Magnitude of association</u>
			Ref No.	First author	Year	Study period						
Ramezani F et al	Dietary fiber intake and all-cause and cause-specific mortality: An updated systematic review and meta-analysis of prospective cohort studies	2024	Number of studies/reports: 47				CVD related mortality	Prospective cohort study	Overall	0.74 (0.71,0.77)		↓
			Number of studies/reports: 20						By Fibre			
			Number of studies/reports: 16						Cereal, Bran, Germ, Whole grain	0.85 (0.80,0.89)		↓
			Number of studies/reports: 15						Soluble	0.80 (0.75,0.86)		↓
			Number of studies/reports: 17						Insoluble, Cellulose, Lignin	0.74 (0.68,0.79)		↓
			Number of studies/reports: 18						Vegetable	0.89 (0.85,0.93)		↓
			Number of studies/reports: 11						Fruit	0.79 (0.70,0.88)		↓
			Number of studies/reports: 3						Legume, Bean	0.87 (0.82,0.91)		↓
			Number of studies/reports: 3						Non-Starch Polysaccharides	0.72 (0.39,1.04)		—
			Number of studies/reports: 3						Non-Starch Polysaccharides Density	0.94 (0.65,1.23)		—
			Number of studies/reports: 3						Nuts and Seeds	0.57 (0.38,0.77)		↓ ↓
			Number of studies/reports: 7						By Type of CVD			
			Number of studies/reports: 11						CHD	0.83 (0.73,0.92)		↓
				Stroke	0.78 (0.69,0.87)	↓						
Veronese N	Dietary fiber and health outcomes: an umbrella review of systematic reviews and meta-analyses	2018	Number of studies/reports: 10				CVD mortality	Prospective studies	Highest vs. lowest	0.818 (0.778, 0.861)		↓
			Number of studies/reports: 22				CVD		Continuous (increase of 7 g/d)	0.913 (0.893, 0.932)		↓
			Number of studies/reports: 25				Coronary artery disease		Highest vs. lowest	0.932 (0.906, 0.958)		↓

Author	Study Title	Year	Cohort	N	Location	Outcome	Events	Population	Gender	Exposure	Q1	Q2	Q3	Q4	Q5	Overall	Significance					
Kokubo Y et al	Dietary fiber intake and risk of cardiovascular disease in the Japanese population: the Japan Public Health Center-based study cohort	2011	cohort I : 1995-2004.12.31, cohort II : 1998-2004.12.31	86387	Japan Public Health Center-based study cohort	Cardiovascular disease incidence;	Stroke event: 2,553 CHD events: 684	Japanese	Men	Dietary total fiber intake; Cardiovascular disease	396	387	376	401	424	1.00 (Reference)	0.93 (0.78–1.10)	0.86 (0.71–1.04)	0.89 (0.72–1.09)	0.94 (0.74–1.20)	0.649	—
									Men	All strokes	303	286	279	303	328	1.00 (Reference)	0.94 (0.78–1.14)	0.89 (0.71–1.11)	0.92 (0.73–1.17)	1.00 (0.76–1.32)	0.976	—
									Men	Cerebral infarction	173	186	163	180	208	1.00 (Reference)	0.98 (0.77–1.26)	0.79 (0.59–1.05)	0.83 (0.61–1.14)	0.94 (0.66–1.34)	0.54	—
									Men	Intracerebral hemorrhage	96	76	99	92	93	1.00 (Reference)	0.84 (0.59–1.20)	1.10 (0.74–1.61)	0.99 (0.64–1.52)	1.08 (0.66–1.78)	0.588	—
									Men	Subarachnoid hemorrhage	34	24	17	31	27	1.00 (Reference)	0.95 (0.51–1.76)	0.74 (0.35–1.57)	1.32 (0.63–2.78)	1.02 (0.45–2.54)	0.672	—
									Men	Coronary heart disease	93	101	97	98	96	1.00 (Reference)	0.85 (0.61–1.19)	0.77 (0.53–1.13)	0.78 (0.51–1.20)	0.76 (0.47–1.25)	0.327	—
									Women	Dietary total fiber intake; Cardiovascular disease	246	260	269	244	234	1.00 (Reference)	0.89 (0.73–1.09)	0.79 (0.63–0.99)	0.70 (0.54–0.89)	0.65 (0.48–0.87)	0.002	↓ ↓
									Women	All strokes	208	211	235	208		1.00 (Reference)	0.89 (0.71–1.11)	0.85 (0.67–1.08)	0.73 (0.55–0.95)		0.005	

Q5

192

0.64 (0.46–0.88)

↓ ↓

Cerebral infarction				
Q1	92	1.00 (Reference)		
Q2	106	0.95 (0.78–1.17)		
Q3	120	0.86 (0.611–1.22)	0.029	
Q4	97	0.75 (0.58–0.96)		
Q5	103	0.73 (0.55–0.97)		↓
Intracerebral hemorrhage				
Q1	67	1.00 (Reference)		
Q2	60	0.88 (0.58–1.32)		
Q3	73	0.95 (0.61–1.47)	0.1	
Q4	65	0.83 (0.50–1.36)		
Q5	45	0.53 (0.28–0.97)		↓ ↓
Subarachnoid hemorrhage				
Q1	49	1.00 (Reference)		
Q2	45	0.84 (0.52–1.37)		
Q3	42	0.74 (0.44–1.27)	0.419	
Q4	46	0.81 (0.45–1.44)		
Q5	44	0.72 (0.37–1.43)		↓
Coronary heart disease				
Q1	38	1.00 (Reference)		
Q2	49	0.86 (0.52–1.41)		
Q3	34	0.51 (0.28–0.93)	0.149	
Q4	36	0.54 (0.28–1.03)		
Q5	42	0.68 (0.32–1.42)		↓

Author	Intervention	Year	Study Period	Participants	Location	Outcome	Events	Population	Q1	Q2	Q3	Q4	Q5	HR (95% CI)	P-value	Significance										
Eshak S. et al	Dietary fiber intake is associated with reduced risk of mortality from cardiovascular disease among Japanese men and women	2010	1988-2003	58730	Japan Collaborative Cohort Study	CVD death	total CVD deaths; 2080	Japanese Men	Total dietary fibre intake;								0.555	-								
									Total stroke																	
									Q1	60	1.00 (Reference)															
									Q2	149	1.14 (0.74-1.76)															
									Q3	119	1.12 (0.74-1.69)															
									Q4	91	1.15 (0.70-1.56)															
									Q5	80	1.09 (0.75-1.58)															
									CHD										0.022	-						
									Q1	40	1.00 (Reference)															
									Q2	60	0.83 (0.62-1.12)															
									Q3	50	0.69 (0.51-0.93)															
									Q4	41	0.59 (0.43-0.81)															
									Q5	40	0.81 (0.61-1.09)															
									Other CVD												0.313	-				
									Q1	45	1.00 (Reference)															
									Q2	94	1.25 (0.87-1.79)															
									Q3	75	0.92 (0.65-1.32)															
									Q4	64	1.06 (0.62-1.36)															
									Q5	55	0.78 (0.54-1.13)															
									Total CVD														0.054	-		
									Q1	145	1.00 (Reference)															
									Q2	303	1.06 (0.92-1.22)															
									Q3	244	0.92 (0.80-1.06)															
									Q4	196	0.86 (0.55-1.15)															
									Q5	175	0.83 (0.63-1.09)															
									Women																0.775	-
									Total dietary fibre intake;																	
									Total stroke																	
Q1	71	1.00 (Reference)																								
Q2	67	0.78 (0.55-1.12)																								
Q3	102	1.08 (0.76-1.54)																								
Q4	128	0.89 (0.61-1.30)																								
Q5	116	1.05 (0.73-1.51)																								
CHD								0.014	↓																	
Q1	38	1.00 (Reference)																								
Q2	35	1.03 (0.76-1.48)																								
Q3	41	0.86 (0.61-1.13)																								
Q4	47	0.81 (0.52-0.99)																								
Q5	30	0.80 (0.57-0.97)																								
Other CVD										0.212	-															
Q1	52	1.00 (Reference)																								
Q2	51	1.18 (0.91-1.54)																								
Q3	78	0.97 (0.74-1.26)																								
Q4	86	0.78 (0.55-1.10)																								
Q5	75	1.06 (0.74-1.51)																								
Total CVD												0.044	↓													
Q1	161	1.00 (Reference)																								
Q2	153	1.21 (0.94-1.44)																								
Q3	221	1.06 (0.82-1.19)																								
Q4	261	0.85 (0.69-0.99)																								
Q5	221	0.82 (0.57-0.97)																								