

評価対象論文リスト(要因:野菜・果物、アウトカム:循環器病)

評価判定日:2025/4/25

①既存の系統的レビュー・メタ解析・統合解析

1	Aune D, Giovannucci E, Boffetta P, et al. Fruit and vegetable intake and the risk of cardiovascular disease, total cancer and all-cause mortality—a systematic review and dose-response meta-analysis of prospective studies. <i>International Journal of Epidemiology</i> . 2017;46(3):1029-1056. doi:10.1093/ije/dyw319
2	Wang X, Ouyang Y, Liu J, et al. Fruit and vegetable consumption and mortality from all causes, cardiovascular disease, and cancer: systematic review and dose-response meta-analysis of prospective cohort studies. <i>BMJ</i> . 2014;349(jul29 3):g4490-g4490. doi:10.1136/bmj.g4490
3	Chareonrungrueangchai K, Wongkawinwoot K, Anothaisintawee T, Reutrakul S. Dietary factors and risks of cardiovascular diseases: an umbrella review. <i>Nutrients</i> .
4	Wang DD, Li Y, Bhupathiraju SN, et al. Fruit and vegetable intake and mortality: results from 2 prospective cohort studies of us men and women and a meta-analysis of 26 cohort studies. <i>Circulation</i> . 2021;143(17):1642-1654. doi:10.1161/CIRCULATIONAHA.120.048996
5	Bechthold A, Boeing H, Schwedhelm C, et al. Food groups and risk of coronary heart disease, stroke and heart failure: A systematic review and dose-response meta-analysis of prospective studies. <i>Critical Reviews in Food Science and Nutrition</i> . 2019;59(7):1071-1090. doi:10.1080/10408398.2017.1392288
6	Zhan J, Liu YJ, Cai LB, Xu FR, Xie T, He QQ. Fruit and vegetable consumption and risk of cardiovascular disease: A meta-analysis of prospective cohort studies. <i>Critical Reviews in Food Science and Nutrition</i> . 2017;57(8):1650-1663. doi:10.1080/10408398.2015.1008980
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9	Guo N, Zhu Y, Tian D, et al. Role of diet in stroke incidence: an umbrella review of meta-analyses of prospective observational studies. <i>BMC Med</i> . 2022;20(1):194.
10	He FJ, Nowson CA, MacGregor GA. Fruit and vegetable consumption and stroke: meta-analysis of cohort studies. <i>The Lancet</i> . 2006;367(9507):320-326. doi:10.1016/S0140-
11	Gan Y, Tong X, Li L, et al. Consumption of fruit and vegetable and risk of coronary heart disease: A meta-analysis of prospective cohort studies. <i>International Journal of Cardiology</i> . 2015;183:129-137. doi:10.1016/j.ijcard.2015.01.077
12	Dauchet L, Amouyel P, Hercberg S, Dallongeville J. Fruit and vegetable consumption and risk of coronary heart disease: a meta-analysis of cohort studies. <i>The Journal of Nutrition</i> . 2006;136(10):2588-2593. doi:10.1093/jn/136.10.2588
13	Dauchet L, Amouyel P, Dallongeville J. Fruit and vegetable consumption and risk of stroke: A meta-analysis of cohort studies. <i>Neurology</i> . 2005;65(8):1193-1197.
14	He FJ, Nowson CA, Lucas M, MacGregor GA. Increased consumption of fruit and vegetables is related to a reduced risk of coronary heart disease: meta-analysis of cohort studies. <i>J Hum Hypertens</i> . 2007;21(9):717-728. doi:10.1038/sj.jhh.1002212

②日本人集団の個別疫学研究

15	Tanaka S, Yoshimura Y, Kamada C, et al. Intakes of dietary fiber, vegetables, and fruits and incidence of cardiovascular disease in japanese patients with type 2 diabetes. <i>Diabetes Care</i> . 2013;36(12):3916-3922. doi:10.2337/dc13-0654
16	Yoshizaki T, Ishihara J, Kotemori A, et al. Association of vegetable, fruit, and okinawan vegetable consumption with incident stroke and coronary heart disease. <i>Journal of Epidemiology</i> . 2020;30(1):37-45. doi:10.2188/jea.JE20180130
17	Sahashi Y, Goto A, Takachi R, et al. Inverse association between fruit and vegetable intake and all-cause mortality: japan public health center-based prospective study. <i>The Journal of Nutrition</i> . 2022;152(10):2245-2254. doi:10.1093/jn/nxac136

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19	Mori N, Shimazu T, Charvat H, et al. Cruciferous vegetable intake and mortality in middle-aged adults: A prospective cohort study. <i>Clinical Nutrition.</i> 2019;38(2):631-643. doi:10.1016/j.clnu.2018.04.012
20	Okuda N, Miura K, Okayama A, et al. Fruit and vegetable intake and mortality from cardiovascular disease in Japan: a 24-year follow-up of the NIPPON DATA80 Study. <i>Eur J Clin Nutr.</i> 2015;69(4):482-488. doi:10.1038/ejcn.2014.276
21	Nakamura K, Nagata C, Oba S, Takatsuka N, Shimizu H. Fruit and vegetable intake and mortality from cardiovascular disease are inversely associated in Japanese women but not in men. <i>The Journal of Nutrition.</i> 2008;138(6):1129-1134. doi:10.1093/jn/138.6.1129
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23	Takachi R, Inoue M, Ishihara J, et al. Fruit and vegetable intake and risk of total cancer and cardiovascular disease: Japan Public Health Center-based Prospective Study. <i>American Journal of Epidemiology.</i> 2007;167(1):59-70. doi:10.1093/aje/kwm263
24	Nagura J, Iso H, Watanabe Y, et al. Fruit, vegetable and bean intake and mortality from cardiovascular disease among Japanese men and women: the JACC Study. <i>Br J Nutr.</i> 2009;102(2):285-292. doi:10.1017/S0007114508143586
25	Sasazuki S, The Fukuoka Heart Study Group. Case-control study of nonfatal myocardial infarction in relation to selected foods in Japanese men and women. <i>Jpn Circ J.</i> 2001;65(3):200-206. doi:10.1253/jcj.65.200

CVD total

①incidence

■メタ解析、系統的レビュー

Reference			Include study										
Author	Title	Year	Ref No.	First author	Year	Study period	Study location	Event (*Definition)	Design	Category	Relative risk (95% CI or p)	Weight	<u>Magnitude of association</u>
Aune D, etal.	Fruit and vegetable intake and the risk of cardiovascular disease, total cancer and all-cause mortality-a systematic review and dose-response meta-analysis of prospective studies	2017	Overall					CVD	meta-analysis of prospective cohort studies (including Japanese)	fruit and vegetable, highest vs lowest	0.84 (0.79-0.90)		↓
				Buil-Cosiales	2016		6 Spain				0.56 (0.34-0.92)	-	
				Stefler	2016		7.1 Czech Republic, Poland and Russia				0.74 (0.54-1.01)	-	
				Hjartaker	2015		20.3 Norway				0.99 (0.92-1.08)	-	
				Atkins	2014		11.3 UK				1.01 (0.80-1.28)	-	
				Oyebode	2014		7.7 UK				0.69 (0.53-0.88)	-	
				Elwood	2013		25 UK				0.95 (0.75-1.21)	-	
				Leenders	2013		13 Europe				0.85 (0.77-0.93)	-	
				Belin	2011		10 US				0.92 (0.87-0.97)	-	
				Dauchet	2010		10 France, UK				0.90 (0.73-1.10)	-	
				Nechuta	2010		9 China				0.84 (0.70-1.00)	-	
				Takachi	2008		5.9 Japan				0.76 (0.65-0.90)	-	
				Genkinger	2004		12.2 US				0.76 (0.54-1.06)	-	
				Hung	2004		12 US				0.70 (0.55-0.89)	-	
				Rissanen	2003		12.8 Finland				0.61 (0.34-1.10)	-	
				Bazzano	2002		19 US				0.73 (0.58-0.92)	-	
				Liu	2000		5 US				0.85 (0.61-1.17)	-	
			Overall					CVD	meta-analysis of prospective cohort studies (including Japanese)	fruit and vegetable, per 200g/day increment	0.92 (0.90-0.95)		↓
				Buil-Cosiales	2016		6 Spain				0.82 (0.72-0.94)	-	
				Stefler	2016		7.1 Czech Republic, Poland and Russia				0.90 (0.79-1.04)	-	
				Hjartaker	2015		20.3 Norway				1.00 (0.90-1.11)	-	
				Oyebode	2014		7.7 UK				0.90 (0.85-0.95)	-	
				Leenders	2013		13 Europe				0.94 (0.92-0.97)	-	
				Nechuta	2010		9 China				0.92 (0.85-1.00)	-	
				Dauchet	2010		10 France, UK				0.87 (0.68-1.13)	-	
				Takachi	2008		5.9 Japan				0.96 (0.90-1.02)	-	
				Genkinger	2004		12.2 US				0.86 (0.71-1.05)	-	
				Hung	2004		12 US				0.94 (0.90-0.97)	-	
				Rissanen	2003		12.8 Finland				0.81 (0.71-0.94)	-	
				Bazzano	2002		19 US				0.76 (0.63-0.91)	-	
				Liu	2000		5 US				0.97 (0.87-1.07)	-	

Overall		CVD		meta-analysis of prospective cohort studies (including Japanese)	vegetables, highest vs lowest	0.89 (0.85–0.94)	↓
Buil-Cosiales	2016	6	Spain			0.67 (0.46-0.97) -	
Stefler	2016	7.1	Czech Republic, Poland and Russia			0.88 (0.66-1.19) -	
Hjartaker	2015	20.3	Norway			0.95 (0.87-1.04) -	
Vormund	2015	21.4	Switzerland			1.03 (0.90-1.17) -	
Atkins	2014	11.3	UK			1.17 (0.69-2.01) -	
Oyebode	2014	7.7	UK			0.78 (0.60-1.01) -	
Tognon	2014	14	Denmark			0.88 (0.76-1.02) -	
Leenders	2013	13	Europe			0.79 (0.71-0.87) -	
Fitzgerald	2012	14.6	US			0.89 (0.72-1.09) -	
Belin	2011	10	US			0.96 (0.91-1.02) -	
Gardener	2011	9	US			0.89 (0.71-1.12) -	
Zhang	2011	4.6	China			0.64 (0.49-0.83) -	
Zhang	2011	10.2	China			0.84 (0.67-1.04) -	
Dauchet	2010	10	France, UK			0.95 (0.77-1.17) -	
Joshiyura	2009	14	US			0.92 (0.83-1.03) -	
Nagura	2009	12.7	Japan			0.96 (0.84-1.10) -	
Nakamura	2008	7	Japan			0.72 (0.49-1.04) -	
Takachi	2008	5.9	Japan			0.89 (0.77-1.04) -	
Overall		CVD		meta-analysis of prospective cohort studies (including Japanese)	vegetables, per 200g/day increment	0.90 (0.87–0.93)	↓
Buil-Cosiales	2016	6	Spain			0.81 (0.66-1.00) -	
Stefler	2016	7.1	Czech Republic, Poland and Russia			0.98 (0.81-1.14) -	
Wang	2016	26	China			0.90 (0.81-1.01) -	
Hjartaker	2015	20.3	Norway			0.87 (0.70-1.08) -	
Oyebode	2014	7.7	UK			0.81 (0.70-0.95) -	
Leenders	2013	13	Europe			0.88 (0.83-0.92) -	
Fitzgerald	2012	14.6	US			0.96 (0.86-1.06) -	
Zhang	2011	4.6	China			0.78 (0.70-0.88) -	
Zhang	2011	10.2	China			0.90 (0.81-1.00) -	
Dauchet	2010	10	France, UK			0.87 (0.52-1.45) -	
Nagura	2009	12.7	Japan			0.89 (0.51-1.57) -	
Nakamura	2008	7	Japan			0.86 (0.71-1.05) -	
Takachi	2008	5.9	Japan			0.97 (0.86-1.10) -	
Hung	2004	12	US			0.94 (0.88-1.00) -	
Overall		CVD		meta-analysis of prospective cohort studies (including Japanese)	fruits, highest vs lowest	0.87 (0.82–0.92)	↓
Buil-Cosiales	2016	6	Spain			0.76 (0.52-1.10) -	

	Du	2016	7	China Czech Republic, Poland and Russia		0.80 (0.77-0.84)	-		
	Stefler	2016	7.1			0.78 (0.57-1.07)	-		
	Hjartaker	2015	20.3	Norway		1.04 (0.95-1.13)	-		
	Lai	2015	16.7	UK		0.57 (0.39-0.84)	-		
	Vormund	2015	21.4	Switzerland		0.90 (0.78-1.03)	-		
	Atkins	2014	11.3	UK		0.90 (0.64-1.28)	-		
	Oyebode	2014	7.7	UK		0.82 (0.68-0.98)	-		
	Tognon	2014	14	Denmark		0.86 (0.75-1.00)	-		
	Leenders	2013	13	Europe		0.96 (0.87-1.05)	-		
	Fitzgerald	2012	14.6	US		0.82 (0.67-1.01)	-		
	Belin	2011	10	US		0.91 (0.85-0.96)	-		
	Gardener	2011	9	US		1.13 (0.90-1.41)	-		
	Zhang	2011	4.6	China		0.78 (0.62-0.98)	-		
	Zhang	2011	10.2	China		0.63 (0.48-0.85)	-		
	Dauchet	2010	10	France, UK		1.04 (0.85-1.28)	-		
	Joshiyura	2009	14	US		0.89 (0.78-1.01)	-		
	Nagura	2009	12.7	Japan		0.77 (0.67-0.88)	-		
	Nakamura	2008	7	Japan		1.07 (0.80-1.43)	-		
	Takachi	2008	5.9	Japan		0.70 (0.59-0.83)	-		
	Appleby	2002	19.8	UK		0.89 (0.77-1.03)	-		
Overall					CVD	meta-analysis of prospective cohort studies (including Japanese)	fruits, per 200g/day increment	0.87 (0.82-0.92)	↓
	Buil-Cosiales	2016	6	Spain		0.88 (0.76-1.03)	-		
	Du	2016	7	China		0.79 (0.76-0.82)	-		
	Hodgson	2016	2015	Australia		0.79 (0.63-0.98)	-		
	Stefler	2016	7.1	Russia		0.85 (0.71-0.98)	-		
	Wang	2016	26	China		0.28 (0.07-1.00)	-		
	Hjartaker	2015	20.3	Norway		1.13 (0.89-1.44)	-		
	Lai	2015	16.7	UK		0.86 (0.77-0.95)	-		
	Oyebode	2014	7.7	UK		0.89 (0.81-0.98)	-		
	Leenders	2013	13	Europe		0.98 (0.94-1.02)	-		
	Fitzgerald	2012	14.6	US		0.79 (0.63-0.98)	-		
	Zhang	2011	4.6	China		0.79 (0.71-0.89)	-		
	Zhang	2011	10.2	China		0.90 (0.81-0.99)	-		
	Dauchet	2010	10	France, UK		0.87 (0.68-1.13)	-		
	Nagura	2009	12.7	Japan		0.44 (0.28-0.69)	-		
	Nakamura	2008	7	Japan		1.05 (0.78-1.42)	-		
	Takachi	2008	5.9	Japan		0.93 (0.85-1.03)	-		
	Hung	2004	12	US		0.89 (0.83-0.95)	-		

■コホート研究(コホートのプール解析含む)

Reference			Study subjects						Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	Magnitude of association
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race						
Yoshizaki T, JPHC Study Group.	Association of Vegetable,	2020	1995-2012	16498	JPHC	CVD	1036	Japanese	fruit and vegetable				age sex study area alcohol intake	

et al.	Fruit, and Okinawan Vegetable Consumption With Incident Stroke and Coronary Heart Disease	study	vegetables	Q1 373	ref	0.584	age, sex, study area, alcohol intake, cigarette smoking status, type of work, self-reported perceived mental stress, quartiles of body mass index, metabolic equivalent task-hours per day, quartiles of energy intake, and energy-adjusted dietary consumption of fish, meat, and sodium, s past history of diabetes, treatment of hypertension, and treatment of hypercholesterolaemia
				Q2 314	0.90 (0.77-1.06)		
				Q3 349	1.05 (0.89-1.24)		
				Q1 353	ref		
				Q2 310	0.97 (0.82-1.14)		
				Q3 373	1.15 (0.97-1.37)		
			fruits	Q1 387	ref	0.377	
				Q2 332	0.94 (0.81-1.10)		
				Q3 317	0.93 (0.79-1.09)		

②mortality
 ■メタ解析、系統的レビュー

Reference		Include study												
Author	Title	Year	Ref No.	First author	Year	Study period	Study location	Event (*Definition)	Design	Category	Relative risk (95% CI or p)	Weight	Magnitude of association	
Shirota M, et al.	Japanese-Style Diet and Cardiovascular Disease Mortality: A Systematic Review and Meta-Analysis of Prospective Cohort Studies	2022	Overall					CVD mortality	meta-analysis of prospective cohort studies (only)	vegetables, highest vs lowest	0.85 (0.76-0.96)		↓	
			38 (Men)	Nakamura	2008	7.33						0.81 (0.49-1.03)	5.3	
			38 (Women)	Nakamura	2008	7.33						0.62 (0.36-1.07)	4.5	
			39	Nagura	2009	13						0.96 (0.84-	42.3	
			40	Okuda	2015	24						0.81 (0.66-	24.2	
			41	Kondo	2019	29						0.78 (0.63-	23.7	
			Overall						CVD mortality	meta-analysis of prospective cohort studies (only)	fruits, highest vs lowest	0.85 (0.79-0.91)		↓
			38 (Men)	Nakamura	2008	7.33						1.16 (0.77-	3.2	
			38 (Women)	Nakamura	2008	7.33						0.99 (0.66-	3.1	
			39	Nagura	2009	13						0.77 (0.67-	21.3	
			40	Okuda	2015	24						0.79 (0.65-	12.2	
			41	Kondo	2019	29						0.84 (0.72-	17.7	
			45 (Men)	Eguchi	2012	16.5						0.93 (0.82-	23.2	
			45 (Women)	Eguchi	2012	16.5						0.82 (0.71-	19.3	
			Wang X, et al.	Fruit and vegetable consumption and mortality from all causes, cardiovascular disease, and cancer: systematic review and dose-response meta-analysis of prospective cohort studies	2014	Overall					CVD mortality	meta-analysis of prospective cohort studies (including Japanese)	vegetables, 1SV/day increment	0.96 (0.93-0.99)
43	Leenders	2013				13	10 European countries					0.93 (0.91-0.96)	27.07	
13	Zhang	2011				4.6 (men), 10.2 (women)	China					0.96 (0.93-0.99)	25.49	
11	Nagura	2009				13	Japan					0.99 (0.95-1.04)	20.58	
12	Nakamura	2008				7	Japan					1.00 (0.95-1.05)	19.02	
9	Strandhage	2000				26	Sweden					0.90 (0.80-1.02)	6.28	
51	Sahyoun	1996				12	US					0.76 (0.58-0.98)	1.58	
Overall									CVD mortality	meta-analysis of prospective cohort studies (including Japanese)	fruits, 1SV/day increment	0.95 (0.91-1.00)		↓
43	Leenders	2013				13	10 European countries					1.00 (0.97-1.02)	29.06	
13	Zhang	2011				4.6 (men), 10.2 (wc	China					0.94 (0.91-0.98)	26.34	

			11	Nagura	2009	13	Japan		0.92 (0.88-0.96)	24.72		
			12	Nakamura	2008	7	Japan		1.01 (0.88-1.16)	8.14		
			9	Strandhage	2000	26	Sweden		0.85 (0.72-0.99)	6.54		
			51	Sahyoun	1996	12	US		0.95 (0.79-1.14)	5.20		
Wang DD, et al.	Fruit and Vegetable Intake and Mortality: Results From 2 Prospective Cohort Studies of US Men and Women and a Meta-Analysis of 26 Cohort Studies	2021	Overall					CVD mortality	meta-analysis of prospective cohort studies (including Japanese)	fruit and vegetable, 5SV/day vs 2SV/day	0.88 (0.83-0.94)	↓
			44	Nagura	2009	13	Japan				0.99 (0.95-1.04)	-

その他欧米諸国の研究含まれたが(件数不明)、個々の詳細な記載なし

■コホート研究(コホートのプール解析含む)

Reference		Study subjects							Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	Magnitude of association											
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race																	
Sahashi Y, et al.	Inverse Association between Fruit and Vegetable Intake and All-Cause Mortality: Japan Public Health Center-Based Prospective Study	2023	1995-2018	94658	JPHC study	CVD mortality	5978	Japanese	vegetables	Q1	1257 ref	0.07	age, BMI, residential area, smoking status, alcohol intake, amount of daily physical activities, self-reported history of hypertension and diabetes, marital status, living status, and dietary habits (total energy intake, the amounts of fruit, vegetable, coffee, meat, green tea, and salt intake).	↓											
									Q2	1102 0.94 (0.87-1.02)															
									Q3	1131 0.95 (0.88-1.04)															
									Q4	1129 0.90 (0.82-0.98)															
									Q5	1359 0.97 (0.89-1.07)															
									fruits	Q1	1264 ref	0.01													
									Q2	1144 0.97 (0.90-1.05)															
									Q3	1173 0.97 (0.89-1.05)															
									Q4	1134 0.87 (0.79-0.94)															
									Q5	1263 0.91 (0.83-0.99)															
Okuda N, et al.	Fruit and vegetable intake and mortality from cardiovascular disease in Japan: a 24-year follow-up of the NIPPON DATA80 Study	2015	1980-2004	9112	NIPPON DATA80	CVD mortality	823	Japanese	fruit and vegetable	Q1	169 ref	0.003	age, sex, body mass index, smoking habit, drinking habit, sodium intake and intakes of meat, fish and shellfish, milk and dairy products and soybeans and legumes.	↓											
									Q2	181 0.85 (0.69-1.05)															
									Q3	188 0.72 (0.58-0.89)															
									Q4	285 0.74 (0.61-0.91)															
									vegetables	Q1	184 ref	0.021													
									Q2	189 0.95 (0.77-1.16)															
									Q3	189 0.81 (0.66-1.00)															
									Q4	261 0.81 (0.66-1.00)															
									fruits	Q1	187 ref	0.029													
									Q2	170 0.85 (0.69-1.05)															
									Q3	203 0.86 (0.70-1.05)															
									Q4	263 0.79 (0.65-0.96)															
									Nakamura K, et al.	Fruit and vegetable intake and mortality from cardiovascular disease are inversely associated in Japanese women but not in men	2008	1992-1999			31152 (men n=14427, women n=17125)	Takayama Study	CVD mortality	384 (men n=200, women n=184)	Japanese	Men vegetables	Q1	38 ref	0.99	age, total energy, marital status, years of education BMI	-
																				Q2	33 0.81 (0.46-1.43)				
																				Q3	53 1.08 (0.63-1.85)				
																				Q4	76 1.02 (0.57-1.82)				
fruits	Q1	45 ref	0.53																						

CHD

①incidence

■メタ解析、系統的レビュー

Reference			Include study								Relative risk (95% CI or p)	Weight	<u>Magnitude of association</u>
Author	Title	Year	Ref No.	First author	Year	Study period	Study location	Event (*Definition)	Design	Category			
Aune D, et al.	Fruit and vegetable intake and the risk of cardiovascular disease, total cancer and all-cause mortality-a systematic review and dose-response meta-analysis of prospective studies	2017	Overall					CHD	meta-analysis of prospective cohort studies (including Japanese)	vegetables, highest vs lowest	0.87 (0.84-0.90) -	-	↓
				Buil-Cosiales	2016		6 Spain				0.64 (0.30-1.34)	-	
				Stefler	2016		7.1 Czech Republic, Poland and Russia				1.00 (0.66-1.51)	-	
				Hjartaker	2015		20.3 Norway				0.89 (0.78-1.01)	-	
				Kobylecki	2015		10 Denmark				0.86 (0.74-0.99)	-	
				Atkins	2014		11.3 UK				0.86 (0.54-1.35)	-	
				Rebello	2014		15 Singapore				0.78 (0.65-0.94)	-	
				Sharma	2014		8 US				0.81 (0.68-0.96)	-	
				Tognon	2014		14 Denmark				0.73 (0.54-1.00)	-	
				Yu	2014		5.4 China				1.02 (0.71-1.48)	-	
				Yu	2014		9.8 China				0.83 (0.52-1.33)	-	
				Bhupathiraju	2013		22 US				0.92 (0.82-1.03)	-	
				Bhupathiraju	2013		24 US				0.85 (0.74-0.97)	-	
				Crowe	2011		8.4 Europe				0.92 (0.76-1.12)	-	
				Dauchet	2010		10 France, UK				1.05 (0.72-1.53)	-	
				Nagura	2009		12.7 Japan				0.85 (0.64-1.14)	-	
				Liu	2001		12 US				0.77 (0.60-0.98)	-	
				Liu	2000		5 US				0.88 (0.50-1.58)	-	
				Watkins	2000		7 US				0.89 (0.85-0.93)	-	
				Whiteman	1999		9 England				0.63 (0.42-0.95)	-	
				Knekt	1994		14 Finland				0.85 (0.66-1.10)	-	
				Pietinen	1996		6.1 Finland				0.60 (0.45-0.79)	-	
				Sahyoun	1996		12 US				0.51 (0.27-0.95)	-	
			Overall					CHD	meta-analysis of prospective cohort studies (including Japanese)	vegetables, per 200g/day increment	0.84 (0.79-0.90)	-	↓
				Buil-Cosiales	2016		6 Spain				0.76 (0.54-1.07)	-	
				Stefler	2016		7.1 Czech Republic, Poland and Russia				1.02 (0.79-1.30)	-	
				Wang	2016		26 China				0.75 (0.63-0.90)	-	
				Hjartaker	2015		20.3 Norway				0.72 (0.53-0.97)	-	
				Kobylecki	2015		10 Denmark				0.94 (0.85-1.05)	-	

	Rebello	2014	15 Singapore		0.63 (0.46-0.87)	-
	Sharma	2014	8 US		0.91 (0.85-0.97)	-
	Yu	2014	5.4 China		0.99 (0.81-1.22)	-
	Yu	2014	9.8 China		0.82 (0.61-1.12)	-
	Bhupathir aju	2013	22 US		0.95 (0.88-1.01)	-
	Bhupathir aju	2013	24 US		0.90 (0.83-0.98)	-
	Crowe	2011	8.4 Europe		0.93 (0.86-1.03)	-
	Dauchet	2010	10 France, UK		0.77 (0.32-1.88)	-
	Nagura	2009	12.7 Japan		0.33 (0.10-1.15)	-
	Tucker	2005	18 US		0.46 (0.21-0.93)	-
	Liu	2001	12 US		0.63 (0.42-0.95)	-
	Liu	2000	5 US		0.95 (0.75-1.22)	-
	Pietinen	1996	6.1 Finland		0.42 (0.28-0.63)	-
	Sahyoun	1996	12 US		0.54 (0.33-0.87)	-
	Knekt	1994	14 Finland		0.64 (0.46-0.90)	-
				CHD	meta-analysis of	
Overall				prospective cohort	fruits, highest	0.86 (0.82-0.91)
				studies (including	vs lowest	↓
				Japanese)		
	Buil- Cosiales	2016	6 Spain		1.02 (0.41-2.54)	-
	Du	2016	7 China Czech		0.84 (0.79-0.90)	-
	Stefler	2016	7.1 Republic, Poland and Russia		0.86 (0.55-1.33)	-
	Hjartaker	2015	20.3 Norway		1.09 (0.96-1.23)	-
	Kobylecki	2015	10 Denmark		0.85 (0.74-0.97)	-
	Lai	2015	16.7 UK		0.45 (0.25-0.81)	-
	Atkins	2014	11.3 UK		0.86 (0.54-1.35)	-
	Rebello	2014	15 Singapore		0.79 (0.67-0.95)	-
	Sharma	2014	8 US		0.96 (0.81-1.14)	-
	Tognon	2014	14 Denmark		1.01 (0.73-1.38)	-
	Yu	2014	5.4 China		0.96 (0.63-1.44)	-
	Yu	2014	9.8 China		0.77 (0.45-1.31)	-
	Bhupathir aju	2013	22 US		0.84 (0.75-0.94)	-
	Bhupathir aju	2013	24 US		0.87 (0.76-0.99)	-
	Crowe	2011	8.4 Europe		0.79 (0.67-0.92)	-
	Dauchet	2010	10 France, UK		0.82 (0.63-1.08)	-
	Nagura	2009	12.7 Japan		0.79 (0.67-0.92)	-
	Appleby	2002	19.8 UK		0.80 (0.66-0.98)	-
	Liu	2000	5 US		0.66 (0.36-1.22)	-
	Whiteman	1999	9 England		0.84 (0.50-1.43)	-
	Mann	1997	13.3 England		0.89 (0.44-1.80)	-
	Pietinen	1996	6.1 Finland		0.78 (0.59-1.03)	-
	Sahyoun	1996	12 US		0.64 (0.34-1.21)	-
	Knekt	1994	14 Finland		0.74 (0.53-1.02)	-
	Fraser	1992	6 US		1.18 (0.82-1.70)	-

		Overall			CHD	meta-analysis of prospective cohort studies (including Japanese)	fruits, per 200g/day increment	0.90 (0.86-0.94)		↓
		Buil-Cosiales	2016	6	Spain		0.95 (0.77-1.18)	-		
		Du	2016	7	China		0.85 (0.79-0.91)	-		
		Stefler	2016	7.1	Czech Republic, Poland and Russia		0.90 (0.72-1.14)	-		
		Wang	2016	26	China		0.05 (0.01-0.60)	-		
		Hjartaker	2015	20.3	Norway		1.25 (0.88-1.76)	-		
		Kobylecki	2015	10	Denmark		0.95 (0.86-1.05)	-		
		Lai	2015	16.7	UK		0.83 (0.71-0.98)	-		
		Rebello	2014	15	Singapore		0.76 (0.64-0.89)	-		
		Sharma	2014	8	US		0.98 (0.91-1.05)	-		
		Yu	2014	5.4	China		0.97 (0.91-1.03)	-		
		Yu	2014	9.8	China		0.89 (0.67-1.18)	-		
		Bhupathiraju	2013	22	US		0.86 (0.77-0.95)	-		
		Bhupathiraju	2013	24	US		0.85 (0.75-0.97)	-		
		Crowe	2011	8.4	Europe		0.94 (0.88-0.98)	-		
		Dauchet	2010	10	France, UK		0.67 (0.39-1.17)	-		
		Nagura	2009	12.7	Japan		0.40 (0.14-1.12)	-		
		Tucker	2005	18	US		0.93 (0.55-1.58)	-		
		Liu	2000	5	US		0.77 (0.50-1.19)	-		
		Whiteman	1999	9	England		0.36 (0.07-1.86)	-		
		Mann	1997	13.3	England		0.82 (0.23-3.00)	-		
		Sahyoun	1996	12	US		0.80 (0.60-1.08)	-		
		Knekt	1994	14	Finland		0.73 (0.52-1.02)	-		
		Fraser	1992	6	US		1.18 (0.77-1.81)	-		
Bechthold A, et al.	Food groups and risk of coronary heart disease, 2019 stroke and heart failure: A systematic review and dose-response meta-analysis of prospective studies	Overall			CHD	meta-analysis of prospective cohort studies (including Japanese)	fruits, highest vs lowest	0.89 (0.84-0.93)	100	↓
		Bandinelli	2011	7.85	Italy		1.24 (0.73-2.11)	0.9		
		Bhupathiraju	2013	22	US		0.88 (0.78-0.99)	13.6		
		Bhupathiraju	2013	24	US		0.87 (0.76-1.00)	11.3		
		Buckland	2009	10.4	Spain		0.92 (0.74-1.14)	4.9		
		Dauchet	2004	5	France, Northern Ireland		0.90 (0.66-1.23)	2.5		
		Du	2016	7	China		0.66 (0.55-0.79)	6.8		
		Hansen	2010	7.7	Denmark		0.90 (0.74-1.09)	6.0		
		Hirvonen	2001	6.1	Finland		0.87 (0.76-1.00)	6.4		
		Kobylecki	2015	10	Denmark		0.66 (0.36-1.21)	11.3		
		Liu	2000	5	US		0.94 (0.86-1.03)	0.7		
		Neelakanta	2016	N/A	China		0.80 (0.50-1.28)	21.0		
		Oude Griep	2012	10	Netherlands		1.00 (0.85-1.18)	1.1		

		Sonested	2015	14 Sweden		1.01 (0.73-1.40)	8.3			
		Tognon	2014	11 Denmark		0.89 (0.36-2.20)	2.3			
		Yamada	2011	10.7 Japan		0.89 (0.36-2.20)	0.3			
		Yu	2014	5.4 China		0.96 (0.63-1.46)	1.4			
		Yu	2014	9.8 China		0.77 (0.45-1.32)	0.9			
Gan Y, et al. Consumption of fruit and vegetable and risk of coronary heart disease: a meta-analysis of prospective cohort studies	2015				CHD	meta-analysis of prospective cohort studies (including Japanese)	fruit and vegetable, highest vs lowest	0.84 (0.79-0.90)	100	↓
Overall		Liu	2000	5 US		0.63 (0.38-1.17)	1.46			
		Bazzano	2002	19 US		1.01 (0.84-1.21)	11.80			
		Steffen	2003	11 US		0.82 (0.57-1.17)	3.47			
		Tucker	2005	18 US		0.90 (0.76-1.05)	14.38			
		Holmberg	2009	12 Sweden		0.65 (0.44-0.97)	2.89			
		Dauchet	2010	10 France and Northern Ireland		1.06 (0.60-1.84)	1.47			
		Dauchet	2010	10 France and Northern Ireland		0.98 (0.66-1.47)	2.82			
		Dauchet	2010	10 France and Northern Ireland		0.49 (0.30-0.81)	1.86			
		Crowe	2011	8.4 International		0.76 (0.62-0.93)	9.87			
		Bendinelli	2011	7.85 Italy		1.10 (0.65-1.87)	1.65			
		Oude Griep	2012	10 Netherlands		0.99 (0.63-1.57)	2.19			
		Tanaka (DMのみ)	2013	8.1 Japan		0.81 (0.36-1.84)	0.70			
		Bhupathiraj	2013	24 US		0.81 (0.70-0.93)	17.57			
		Bhupathiraj	2013	22 US		0.84 (0.75-0.95)	22.86			
		Yu	2014	5.4 China		0.67 (0.41-1.10)	1.88			
		Yu	2014	9.8 China		0.86 (0.59-1.26)	3.13			
Overall					CHD	meta-analysis of prospective cohort studies (including Japanese)	fruit and vegetable, per 477g/day increment	0.88 (0.85-0.91)	100	↓
		Liu	2000	5 US		0.80 (0.63-1.01)	2.49			
		Bazzano	2002	19 US		0.94 (0.78-1.14)	3.85			
		Steffen	2003	11 US		0.92 (0.75-1.12)	3.44			
		Dauchet	2010	10 France and Northern Ireland		1.08 (0.53-2.23)	0.27			
		Dauchet	2010	10 France and Northern Ireland		0.95 (0.57--1.59)	0.53			
		Dauchet	2010	10 France and Northern Ireland		0.46 (0.36-0.80)	0.44			
		Crowe	2011	8.4 International		0.88 (0.81-0.95)	21.79			
		Bendinelli	2011	7.85 Italy		1.06 (0.77-1.47)	1.32			
		Oude Griep	2012	10 Netherlands		1.07 (0.65-1.76)	0.56			
		Tanaka (DMのみ)	2013	8.1 Japan		1.00 (0.60-1.64)	0.55			
		Bhupathiraj	2013	24 US		0.85 (0.79-0.92)	23.87			
		Bhupathiraj	2013	22 US		0.89 (0.84-0.95)	36.57			
		Yu	2014	5.4 China		0.78 (0.60-1.02)	1.97			
		Yu	2014	9.8 China		0.88 (0.69-1.12)	2.36			
Overall					CHD	meta-analysis of prospective cohort studies (including Japanese)	vegetables, highest vs lowest	0.87 (0.81-0.93)	100	↓
		Sahyoun	1996	12 US		0.51 (0.27-0.95)	1.14			
		Knekt	1996	26 Finland		0.89 (0.65-1.21)	4.26			
		Knekt	1996	26 Finland		0.77 (0.49-1.21)	2.14			
		Mann	1997	13.3 UK		1.34 (0.47-3.84)	0.42			

	Liu	2000	5 US		0.88 (0.50-0.95)	1.35
	Hirvonen	2001	6.1 Finland		0.68 (0.50-0.95)	4.02
	Hirvonen	2001	6.1 Finland		0.77 (0.63-0.94)	8.86
	Liu	2001	12 US		0.77 (0.60-0.98)	6.40
	Tucker	2005	18 US		0.73 (0.54-0.97)	4.73
	Ness	2005	37 England and Scotland		1.01 (0.70-1.63)	2.43
	Cai	2007	5.7 China		0.85 (0.64-1.14)	0.29
	Nagura	2009	13 Japan		0.85 (0.64-1.14)	4.85
	Dauchet	2010	10 France and Northern Ireland		1.25 (0.85-1.95)	1.59
	Dauchet	2010	10 France and Northern Ireland		1.29 (0.85-1.95)	2.51
	Dauchet	2010	10 France and Northern Ireland		0.72 (0.45-1.14)	2.03
	Crowe	2011	8.4 International		0.92 (0.76-1.12)	9.29
	Bendinelli	2011	7.85 Italy		0.62 (0.37-1.04)	1.66
	Oude Griep	2012	10 Netherlands		1.26 (0.89-1.79)	3.45
	Bhupathiraj	2013	24 US		0.85 (0.74-0.97)	15.13
	Bhupathiraj	2013	22 US		0.92 (0.82-1.03)	18.29
	Yu	2014	9.8 China		0.83 (0.52-1.33)	1.99
	Yu	2014	5.4 China		1.02 (0.71--1.48)	3.15
			CHD	meta-analysis of		
Overall				prospective cohort	vegetables, per	
				studies (including	400g/day	
				Japanese)	increment	
					0.82 (0.73-0.92)	100
						↓
	Sahyoun	1996	12 US		0.41 (0.20-0.81)	2.35
	Mann	1997	13.3 UK		3.87 (0.05-291.60)	0.07
	Liu	2000	12 US		0.89 (0.59-1.35)	5.66
	Hirvonen	2001	6.1 Finland		0.49 (0.28-0.85)	3.53
	Hirvonen	2001	6.1 Finland		0.66 (0.45-0.98)	6.20
	Liu	2001	12 US		0.72 (0.53-0.99)	8.40
	Ness	2005	37 England and Scotland		0.99 (0.23-4.16)	0.60
	Nagura	2009	13 Japan		0.29 (0.04-2.06)	0.33
	Dauchet	2010	10 France and Northern Ireland		2.24 (0.53-9.49)	0.60
	Dauchet	2010	10 France and Northern Ireland		2.20 (0.71-6.80)	0.96
	Dauchet	2010	10 France and Northern Ireland		0.36 (0.10-1.28)	0.76
	Crowe	2011	8.4 International		0.92 (0.76-1.10)	14.37
	Bendinelli	2011	7.85 Italy		0.52 (0.28-0.97)	2.90
	Oude Griep	2012	10 Netherlands		1.53 (0.63-3.71)	1.52
	Bhupathiraj	2013	24 US		0.82 (0.72-0.94)	17.62
	Bhupathiraj	2013	22 US		0.92 (0.83-1.03)	19.24
	Yu	2014	9.8 China		0.81 (0.53-1.24)	5.44
	Yu	2014	5.4 China		0.96 (0.73-0.92)	9.45
			CHD	meta-analysis of		
Overall				prospective cohort	fruits, highest	
				studies (including	vs lowest	
				Japanese)	0.86 (0.82-0.91)	100
						↓
	Fraser	1992	6 US		1.18 (0.82-1.70)	2.00
	Fraser	1992	6 US		1.07 (0.58-1.96)	0.72
	Sahyoun	1996	12 US		0.64 (0.34-1.21)	0.66
	Knekt	1996	26 Finland		0.81 (0.61-1.09)	3.15
	Knekt	1996	26 Finland		0.57 (0.36-0.91)	1.23
	Mann	1997	13.3 UK		0.89 (0.44-1.80)	0.53
	Liu	2000	5 US		0.66 (0.36-1.22)	0.71
	Hirvonen	2001	6.1 Finland		0.87 (0.70-1.08)	5.64
	Hirvonen	2001	6.1 Finland		0.87 (0.70-1.05)	7.45

Tucker	2005	18	US	0.97 (0.79-1.20)	6.07		
Ness	2005	37	England and Scotland	1.19 (0.76-1.87)	1.31		
Cai	2007	5.7	China	0.55 (0.11-2.88)	0.10		
Mink	2007	16	US	0.85 (0.75-0.98)	14.82		
Nagura	2009	13	Japan	0.79 (0.58-1.08)	2.74		
Dauchet	2010	10	France and Northern Ireland	1.33 (0.72-2.45)	0.71		
Dauchet	2010	10	France and Northern Ireland	0.83 (0.56-1.23)	1.71		
Dauchet	2010	10	France and Northern Ireland	0.61 (0.38-0.99)	1.16		
Crowe	2011	8.4	International	0.79 (0.67-0.92)	10.55		
Bendinelli	2011	7.85	Italy	1.24 (0.73-2.12)	0.93		
Yamada	2011	10.7	Japan	0.99 (0.34-2.80)	0.24		
Yamada	2011	10.7	Japan	0.67 (0.11-4.15)	0.08		
Oude Griep	2012	10	Netherlands	0.80 (0.50-1.29)	1.18		
Bhupathiraj	2013	24	US	0.87 (0.76-0.99)	15.17		
Bhupathiraj	2013	22	US	0.88 (0.78-0.99)	18.66		
Yu	2014	9.8	China	0.77 (0.45-1.31)	0.93		
Yu	2014	5.4	China	0.96 (0.63-1.44)	1.55		
CHD							
Overall			meta-analysis of prospective cohort studies (including Japanese)	fruits, per 300g/day increment	0.84 (0.75-0.93)	100	↓
Fraser	1992	6	US	1.25 (0.73-2.14)	3.17		
Fraser	1992	6	US	1.08 (0.45-2.60)	1.31		
Sahyoun	1996	12	US	0.77 (0.55-1.09)	6.42		
Mann	1997	13.3	UK	0.82 (0.19-3.56)	0.49		
Liu	2000	5	US	0.69 (0.40-1.21)	3.02		
Hirvonen	2001	6.1	Finland	0.83 (0.59-1.18)	6.30		
Hirvonen	2001	6.1	Finland	0.77 (0.57-1.05)	7.48		
Ness	2005	37	England and Scotland	0.69 (0.42-6.71)	0.55		
Mink	2007	16	US	0.03 (0.01-0.53)	0.27		
Nagura	2009	13	Japan	0.33 (0.09-1.19)	0.63		
Dauchet	2010	10	France and Northern Ireland	1.70 (0.41-7.04)	0.52		
Dauchet	2010	10	France and Northern Ireland	0.62 (0.25-1.54)	1.23		
Dauchet	2010	10	France and Northern Ireland	0.43 (0.15-1.21)	0.94		
Crowe	2011	8.4	International	0.82 (0.73-0.91)	17.11		
Bendinelli	2011	7.85	Italy	1.33 (0.95-1.85)	6.66		
Yamada	2011	10.7	Japan	2.40 (0.08-70.80)	0.09		
Yamada	2011	10.7	Japan	0.09 (0.01-12.47)	0.08		
Oude Griep	2012	10	Netherlands	0.72 (0.43-1.21)	3.38		
Bhupathiraj	2013	24	US	0.80 (0.67-0.94)	13.55		
Bhupathiraj	2013	22	US	0.81 (0.71-0.93)	15.60		
Yu	2014	9.8	China	0.89 (0.63-1.25)	6.41		
Yu	2014	5.4	China	0.94 (0.62-1.43)	4.78		

■コホート研究(コホートのプール解析含む)

Reference		Study subjects							Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race					
Yoshizaki T, et al.	JPHC Study Group. Association of Vegetable, Fruit, and Okinawan Vegetable Consumption With Incident Stroke and Coronary Heart	2020	1995-2012	16498	JPHC study	CHD	197	Japanese	fruit and vegetable	Q1 73 Q2 59	ref 0.86 (0.60-1.23)	0.875	age, sex, study area, alcohol intake, cigarette smoking status, type of work, self-reported

Disease

vegetables	Q3 65	1.04 (0.71-1.51)	0.739	perceived mental stress, quartiles of body mass index, metabolic equivalent task-hours per day, quartiles of energy intake, and energy-adjusted dietary consumption of fish, meat, and sodium, s past history of diabetes , treatment of hypertension, and treatment of
	Q1 64	ref		
Q2 68	1.12 (0.78-1.60)			
Q3 65	1.07 (0.72-1.60)			
fruits	Q1 70	ref	0.462	
	Q2 59	0.93 (0.65-1.33)		
	Q3 68	1.15 (0.80-1.63)		

②mortality

■コホート研究(コホートのプール解析含む)

Reference			Study subjects						Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race					
Okuda N, et al.	Fruit and vegetable intake and mortality from cardiovascular disease in Japan: a 24-year follow-up of the NIPPON DATA80 Study	2015	1980-2004	9112	NIPPON DATA80	CHD mortality	165	Japanese	fruit and vegetable	Q1 42	ref	0.109	age, sex, body mass index, smoking habit, drinking habit, sodium intake and intakes of meat, fish and shellfish, milk and dairy products and soybeans and legumes.
									vegetables	Q2 21	0.39 (0.23-0.66)		
										Q3 44	0.65 (0.43-1.00)		
										Q4 58	0.57 (0.37-0.87)		
										fruits	Q1 42	ref	
									Q2 37		0.79 (0.51-1.24)		
									Q3 34		0.61 (0.38-0.96)		
									Q4 52		0.65 (0.42-1.02)		
									fruits	Q1 37	ref	0.839	
										Q2 29	0.74 (0.46-1.21)		
										Q3 40	0.87 (0.55-1.36)		
										Q4 59	0.89 (0.58-1.36)		
Nagura J, et al.	Fruit, vegetable and bean intake and mortality from cardiovascular disease among Japanese men and women: the JACC Study	2009	1989-2003	59485 (men n=25206, women n=34279)	JACC Study	CHD mortality	452	Japanese	vegetables	Q1	140 ref	0.376	sex, age, BMI, smoking status, alcohol intake, hours of walking, hours of sleep, education years, perceived mental stress, cholesterol intake, SFA intake, n-3 fatty acids intake, sodium intake and histories of hypertension and diabetes
									fruits	Q2	105 0.82 (0.63-1.07)		
										Q3	96 0.83 (0.63-1.10)		
										Q4	111 0.85 (0.64-1.14)		
										Q1	146 ref	0.061	
									Q2	116 0.97 (0.75-1.24)			
									Q3	117 0.84 (0.65-1.10)			
									Q4	73 0.79 (0.58-1.08)			

Heart Disease/Ischemic Heart Disease (虚血性)

②mortality

■メタ解析、系統的レビュー

Reference			Include study							Relative risk (95% CI or p)	Weight	Magnitude of association
Author	Title	Year	Ref No.	First author	Year	Study period	Study location	Event (*Definition)	Design			

Shirota M, Watanabe N, Suzuki M, Kobori M.	Japanese-Style Diet and Cardiovascular Disease Mortality: A Systematic Review and Meta-Analysis of Prospective Cohort Studies	2022	Overall			HD or IHD mortality	meta-analysis of prospective cohort studies (only)	vegetables, highest vs lowest	0.79 (0.69-0.90)		↓
			39	Nagura	2009	13 Japan	IHD mortality		0.85 (0.64-1.14)	22.6	
			40	Okuda	2015	24 Japan	IHD mortality		0.65 (0.42-1.02)	9.6	
			44 (Men)	Mori	2019	16.9 Japan	HD mortality		0.83 (0.67-1.04)	39	
			44 (Women)	Mori	2019	16.9 Japan	HD mortality		0.73 (0.57-0.95)	28.9	

Stroke

①incidence

■メタ解析、系統的レビュー

Reference			Include study								Relative risk (95% CI or p)	Weight	<u>Magnitude of association</u>
Author	Title	Year	Ref No.	First author	Year	Study period	Study location	Event (*Definition)	Design	Category			
Aune D, et al.	Fruit and vegetable intake and the risk of cardiovascular disease, total cancer and all-cause mortality-a systematic review and dose-response meta-analysis of prospective studies	2017	Overall					stroke	meta-analysis of prospective cohort studies (including Japanese)	vegetables, highest vs lowest	0.87 (0.81-0.95)	-	↓
				Buil-Cosiales	2016		6 Spain				0.66 (0.36-1.20)	-	
				Stefler	2016		7.1 Czech Republic, Poland and Russia				0.69 (0.39-1.24)	-	
				Hjartaker	2015		20.3 Norway				0.95 (0.78-1.15)	-	
				Tognon	2014		14 Denmark				0.94 (0.69-1.27)	-	
				Larsson	2013		10.2 Sweden				0.90 (0.80-1.01)	-	
				Sharma	2013		8 US				0.85 (0.70-1.05)	-	
				Zhang	2011		13.7 China				0.82 (0.67-1.00)	-	
				Larsson	2009		13.6 Finland				0.75 (0.67-0.84)	-	
				Mizrahi	2009		24 Finland				0.93 (0.73-1.17)	-	
				Nagura	2009		12.7 Japan				1.09 (0.90-1.33)	-	
				Pham	2007		13.8 Japan				1.00 (0.72-1.25)	-	
				Yokoyama	2000		20 Japan				0.82 (0.35-1.94)	-	
				Keli	1996		15 Netherlands				0.87 (0.81-0.95)	-	
			Overall					stroke	meta-analysis of prospective cohort studies (including Japanese)	vegetables, per 200g/day increment	0.87 (0.79-0.96)	-	↓
				Buil-Cosiales	2016		6 Spain				0.83 (0.63-1.10)	-	
				Stefler	2016		7.1 Czech Republic, Poland and Russia				0.88 (0.62-1.25)	-	
				Wang	2016		26 China				1.03 (0.88-1.18)	-	
				Hjartaker	2015		20.3 Norway				0.74 (0.47-1.18)	-	
				Larsson	2013		10.2 Sweden				0.95 (0.89-1.02)	-	
				Sharma	2013		8 US				0.91 (0.81-1.03)	-	
				Misirli	2012		10.6 Greece				0.86 (0.75-0.98)	-	
				Zhang	2011		13.7 China				0.63 (0.44-0.89)	-	
				Larsson	2009		13.6 Finland				0.66 (0.56-0.78)	-	
				Mizrahi	2009		24 Finland				0.98 (0.83-1.17)	-	
				Nagura	2009		12.7 Japan				1.51 (0.69-3.31)	-	
				Yokoyama	2000		20 Japan				0.09 (0.01-0.78)	-	
				Keli	1996		15 Netherlands				0.71 (0.17-2.87)	-	
			Overall					stroke	meta-analysis of prospective cohort studies (including Japanese)	fruits, highest vs lowest	0.82 (0.77-0.87)	-	↓

Buil-Cosiales	2016	6	Spain	0.74 (0.35-1.57)	-
Du	2016			0.78 (0.74-0.82)	-
Stefler	2016	7.1	Czech Republic, Poland and Russia	0.66 (0.34-1.29)	-
Hjartaker	2015	20.3	Norway	0.89 (0.73-1.08)	-
Lai	2015	16.7	UK	0.70 (0.35-1.40)	-
Tognon	2014	14	Denmark	0.87 (0.64-1.18)	-
Larsson	2013	10.2	Sweden	0.87 (0.64-1.18)	-
Sharma	2013	8	US	1.01 (0.84-1.21)	-
Zhang	2011	13.7	China	0.99 (0.82-1.20)	-
Larsson	2009	13.6	Finland	0.82 (0.73-0.92)	-
Mizrahi	2009	24	Finland	0.81 (0.64-1.02)	-
Nagura	2009	12.7	Japan	0.65 (0.53-0.80)	-
Pham	2007	13.8	Japan	0.90 (0.56-1.28)	-
Sauvaget	2003	18	Japan	0.71 (0.63-0.81)	-
Appleby	2002	19.8	UK	0.85 (0.64-1.12)	-
Yokoyama	2000	20	Japan	0.85 (0.58-1.23)	-
Keli	1996	15	Netherlands	0.52 (0.21-1.31)	-

Overall **stroke** meta-analysis of prospective cohort studies (including Japanese) fruits, per 200g/day increment **0.82 (0.74-0.90)** ↓

Buil-Cosiales	2016	6	Spain	0.95 (0.78-1.16)	-
Du	2016			0.75 (0.71-0.79)	-
Stefler	2016	7.1	Czech Republic, Poland and Russia	0.76 (0.53-1.06)	-
Wang	2016	26	China	0.60 (0.16-2.67)	-
Hjartaker	2015	20.3	Norway	0.65 (0.38-1.11)	-
Lai	2015	16.7	UK	0.90 (0.73-1.10)	-
Larsson	2013	10.2	Sweden	0.89 (0.81-0.97)	-
Sharma	2013	8	US	1.01 (0.89-1.13)	-
Misirli	2012	10.6	Greece	0.88 (0.77-1.02)	-
Zhang	2011	13.7	China	1.11 (0.81-1.51)	-
Larsson	2009	13.6	Finland	0.83 (0.73-0.93)	-
Mizrahi	2009	24	Finland	0.69 (0.53-0.90)	-
Nagura	2009	12.7	Japan	0.23 (0.12-0.45)	-
Sauvaget	2003	18	Japan	0.54 (0.38-0.76)	-
Yokoyama	2000	20	Japan	0.61 (0.19-2.02)	-
Keli	1996	15	Netherlands	0.35 (0.08-1.52)	-

Bechthold A, et al. Food groups and risk of coronary heart disease, stroke and heart failure: A systematic review and dose-response meta-analysis of prospective studies 2019 Overall **stroke** meta-analysis of prospective cohort studies (including Japanese) vegetables, highest vs lowest **0.87 (0.82-0.93)** ↓

Gillman	1995	20	US	0.74 (0.54-1.01)	3.3
Hansen	2017	13.5	Denmark	0.95 (0.89-1.01)	18.0
Johnsen	2003	3.09	Denmark	1.00 (0.66-1.52)	2.1
Joshiyura	1999	8	US	0.90 (0.58-1.40)	1.9
Joshiyura	1999	14	US	0.89 (0.63-1.26)	2.9

	Keli	1996	15	Netherlands		0.82 (0.35-1.92)	0.5		
	Larsson	2009	13.6	Finland		0.75 (0.67-0.84)	12.9		
	Larsson	2013	10.2	Sweden		0.90 (0.80-1.01)	12.5		
	Lin	2013	12	China		1.04 (0.67-1.61)	1.9		
	Misirli	2012	10.6	Greece		0.84 (0.72-0.98)	9.5		
	Mizrahi	2009	24	Finland		1.11 (0.88-1.40)	5.5		
	Oude Griep	2012	10	Netherlands		0.76 (0.52-1.11)	2.4		
	Sonested	2015	14	Sweden		0.86 (0.79-0.94)	15.8		
	Tognon	2014	11	Denmark		0.94 (0.69-1.28)	3.5		
	Yokoyama	2000	20	Japan		0.46 (0.23-0.92)	0.8		
	Zhang	2011	13.7	China		0.82 (0.67-1.00)	6.7		
Overall	stroke				meta-analysis of prospective cohort studies (including Japanese)	vegetables, per 100g/day increment	0.92 (0.86-0.98)		↓
	Gillman	1995	20	US		0.88 (0.77-1.01)	10.0		
	Johnsen	2003	3.09	Denmark		1.01 (0.89-1.15)	10.5		
	Keli	1996	15	Netherlands		0.89 (0.66-1.20)	3.7		
	Larsson	2009	13.6	Finland		0.83 (0.78-0.88)	15.2		
	Larsson	2013	10.2	Sweden		0.98 (0.95-1.00)	17.1		
	Misirli	2012	10.6	Greece		0.93 (0.86-1.01)	14.0		
	Mizrahi	2009	24	Finland		1.03 (0.98-1.08)	16.0		
	Oude Griep	2012	10	Netherlands		0.89 (0.72-1.11)	5.8		
	Yokoyama	2000	20	Japan		0.35 (0.14-0.88)	0.5		
	Zhang	2011	13.7	China		0.78 (0.65-0.94)	7.3		
Overall	stroke				meta-analysis of prospective cohort studies (including Japanese)	fruits, highest vs lowest	0.83 (0.77-0.89)		↓
	Du	2016	7	China		0.71 (0.61-0.83)	10.3		
	Gillman	1995	20	US		0.81 (0.56-1.17)	3.1		
	Hansen	2017	13.5	Denmark		0.91 (0.84-0.99)	15.6		
	Johnsen	2003	3.09	Denmark		0.60 (0.38-0.95)	2.1		
	Joshiyura	1999	8	US		0.68 (0.42-1.10)	2.0		
	Joshiyura	1999	14	US		0.69 (0.49-0.97)	3.5		
	Keli	1996	15	Netherlands		0.70 (0.38-1.29)	1.3		
	Larsson	2009	13.6	Finland		0.82 (0.73-0.92)	12.8		
	Larsson	2013	10.2	Sweden		0.87 (0.78-0.97)	13.3		
	Lin	2013	12	China		0.90 (0.58-1.40)	2.3		
	Mizrahi	2009	24	Finland		0.96 (0.79-1.17)	6.2		
	Oude Griep	2012	10	Netherlands		0.87 (0.64-1.18)	2.1		
	Sonested	2015	14	Sweden		0.44 (0.28-0.69)	7.9		
	Tognon	2014	11	Denmark		0.85 (0.58-1.25)	4.2		
	Yamada	2011	10.7	Japan		0.44 (0.28-0.69)	2.2		
	Yokoyama	2000	20	Japan		0.85 (0.58-1.25)	2.9		
	Zhang	2011	13.7	China		0.99 (0.82-1.20)	8.2		
Overall	stroke				meta-analysis of prospective cohort studies (including Japanese)	fruits, per 100g/day increment	0.90 (0.84-0.97)		↓
	Du	2016	7	China		0.72 (0.67-0.77)	13.8		
	Gillman	1995	20	US		0.91 (0.78-1.06)	9.3		
	Johnsen	2003	3.09	Denmark		0.88 (0.80-0.98)	12.1		
	Keli	1996	15	Netherlands		0.77 (0.48-1.24)	2.1		

		Larsson 2009	13.6 Finland		0.91 (0.86-0.96)	14.5		
		Larsson 2013	10.2 Sweden		0.94 (0.90-0.98)	15		
		Mizrahi 2009	24 Finland		0.98 (0.95-1.01)	15.4		
		Oude Griep 2012	10 Netherlands		0.98 (0.82-1.17)	8.2		
		Yokoyama 2000	20 Japan		0.79 (0.47-1.33)	1.8		
		Zhang 2011	13.7 China		1.00 (0.83-1.20)	7.8		
Hu D, et al.	Fruits and vegetables consumption and risk of stroke: a meta-analysis of prospective cohort studies	2014		stroke	meta-analysis of prospective cohort studies (including Japanese)	fruit and vegetable, highest vs lowest	0.79 (0.75-0.84)	↓
	Overall							
		Tanaka 2013	8.1 Japan		0.35 (0.13-0.96)	-		
		Sharma 2013	7.5 US		0.93 (0.79-1.10)	-		
		Larsson 2013	10.2 Sweden		0.87 (0.79-1.10)	-		
		Chan 2013	5.7 China		0.87 (0.78-0.97)	-		
		Chan 2013	5.7 China		0.70 (0.41-1.20)	-		
		Oude Griep 2012	10 Netherlands		0.88 (0.43-1.82)	-		
		Zhang 2011	13.7 Finland		0.90 (0.58-1.41)	-		
		Yamada 2011	10.7 Japan		0.40 (0.20-0.81)	-		
		Yamada 2011	10.7 Japan		0.47 (0.26-0.87)	-		
		Nagura 2009	13 Japan		0.84 (0.51-1.40)	-		
		Mizrahi 2009	24 Finland		0.83 (0.68-1.03)	-		
		Larsson 2009	13.6 Finland		0.78 (0.72-0.85)	-		
		Mink 2007	16 US		0.85 (0.68-1.07)	-		
		Cai 2007	5.7 China		0.43 (0.25-0.75)	-		
		Ness 2005	37 England and Scotland		0.94 (0.54-1.63)	-		
		Steffen 2003	18 US		0.71 (0.60-0.83)	-		
		Sauvaget 2003	18 Japan		0.71 (0.60-0.83)	-		
		Sauvaget 2003	18 Japan		0.78 (0.69-0.87)	-		
		Johnsen 2003	3.09 Denmark		0.72 (0.47-1.12)	-		
		Bazzano 2002	19 US		0.73 (0.57-0.95)	-		
		Joshiपुरa 1999	14 US		0.74 (0.52-1.05)	-		
		Joshiपुरa 1999	8 US		0.61 (0.37-1.00)	-		
		Keli 1996	15 Netherlands		0.74 (0.45-1.24)	-		
		Gillman 1996	20 US		0.75 (0.57-1.00)	-		
	Overall			stroke	meta-analysis of prospective cohort studies (including Japanese)	vegetables, highest vs lowest	0.86 (0.79-0.93)	↓
		Sharma 2013	7.5 US		0.85 (0.70-1.05)	-		
		Larsson 2013	10.2 Sweden		0.90 (0.80-1.01)	-		
		Oude Griep 2012	10 Netherlands		0.76 (0.52-1.10)	-		
		Zhang 2011	13.7 Finland		0.82 (0.67-1.00)	-		
		Nagura 2009	13 Japan		1.09 (0.90-1.33)	-		
		Mizrahi 2009	24 Finland		0.93 (0.73-1.17)	-		
		Larsson 2009	13.6 Finland		0.75 (0.67-0.84)	-		
		Cai 2007	5.7 China		1.35 (0.92-1.97)	-		
		Ness 2005	37 England and Scotland		0.40 (0.19-0.83)	-		
		Sauvaget 2003	18 Japan		0.77 (0.62-0.95)	-		
		Sauvaget 2003	18 Japan		0.81 (0.68-0.96)	-		
		Johnsen 2003	3.09 Denmark		1.00 (0.66-1.53)	-		
		Joshiपुरa 1999	14 US		0.89 (0.63-1.26)	-		
		Joshiपुरa 1999	8 US		0.90 (0.58-1.41)	-		
		Keli 1996	15 Netherlands		0.82 (0.35-1.94)	-		
		Gillman 1996	20 US		0.74 (0.54-1.02)	-		

Overall	stroke	meta-analysis of prospective cohort studies (including Japanese)	fruits, highest vs lowest	0.77 (0.71-0.84)	↓
Sharma 2013	7.5 US			1.01 (0.84-1.21) -	
Larsson 2013	10.2 Sweden			0.87 (0.78-0.97) -	
Oude Griep 2012	10 Netherlands			0.99 (0.62-1.58) -	
Zhang 2011	13.7 Finland			0.99 (0.82-1.20) -	
Yamada 2011	10.7 Japan			0.40 (0.20-0.81) -	
Yamada 2011	10.7 Japan			0.47 (0.26-0.87) -	
Nagura 2009	13 Japan			0.65 (0.53-0.80) -	
Mizrahi 2009	24 Finland			0.75 (0.59-0.94) -	
Larsson 2009	13.6 Finland			0.82 (0.73-0.92) -	
Mink 2007	16 US			0.85 (0.68-1.07) -	
Cai 2007	5.7 China			0.53 (0.34-0.82) -	
Ness 2005	37 England and Scotland			0.48 (0.21-1.10) -	
Sauvaget 2003	18 Japan			0.65 (0.53-0.80) -	
Sauvaget 2003	18 Japan			0.75 (0.64-0.88) -	
Johnsen 2003	3.09 Denmark			0.60 (0.38-0.95) -	
Joshiyura 1999	14 US			0.69 (0.49-0.98) -	
Joshiyura 1999	8 US			0.68 (0.42-1.10) -	
Keli 1996	15 Netherlands			0.71 (0.38-1.33) -	
Gillman 1995	20 US			0.81 (0.56-1.19) -	

He FJ, et al. Fruit and vegetable consumption and stroke: meta-analysis of cohort studies 2006	stroke	meta-analysis of prospective cohort studies (including Japanese)	fruit and vegetable, 3-5SV/day vs <3SV/day	0.89 (0.83-0.97)	↓
Overall			fruit and vegetable, >5SV/day vs 3-5SV	0.74 (0.69-0.79)	↓
Joshiyura 1999	14 US		>5SV	0.89 (0.66-1.20) -	
Joshiyura 1999	8 US		>5SV	0.70 (0.58-0.85) -	
Joshiyura 1999	8 US		3-5SV	0.77 (0.49-1.20) -	
Joshiyura 1999	8 US		>5SV	0.78 (0.57-1.06) -	
Hirvonen 2000	6.1 Finland		3-5SV	0.85 (0.78-0.93) -	
Hirvonen 2000	6.1 Finland		>5SV	0.74 (0.58-0.95) -	
Bazzano 2003	19 US		3-5SV	0.94 (0.83-1.07) -	
Bazzano 2003	19 US		>5SV	0.70 (0.55-0.89) -	
Johnsen 2003	3.09 Denmark		3-5SV	0.86 (0.66-1.12) -	
Johnsen 2003	3.09 Denmark		>5SV	0.73 (0.54-0.99) -	
Sauvaget 2003	16 Japan		3-5SV	0.90 (0.82-0.99) -	
Sauvaget 2003	16 Japan		>5SV	0.75 (0.69-0.82) -	
Steffen 2003	11 US		3-5SV	1.24 (0.96-1.61) -	
Steffen 2003	11 US		>5SV	0.94 (0.54-1.63) -	
Keli 1996	15 Netherlands		3-5SV	0.82 (0.54-1.24) -	
Keli 1996	15 Netherlands		>5SV	0.75 (0.45-1.24) -	
Gillman 1995	20 US		3-5SV	0.60 (0.39-0.92) -	
Gillman 1995	20 US		>5SV	0.49 (0.30-0.79) -	

■コホート研究(コホートのプール解析含む)

Reference	Study subjects				
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Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race	Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	Magnitude of association	
Yoshizaki T, et al.	JPHC Study Group. Association of Vegetable, Fruit, and Okinawan Vegetable Consumption With Incident Stroke and Coronary Heart Disease	2020	1995-2012	16498	JPHC study	Stroke	839	Japanese	fruit and vegetable	Q1 300	ref	0.571	age, sex, study area, alcohol intake, cigarette smoking status, type of work, self-reported perceived mental stress, quartiles of body mass index, metabolic equivalent task-hours per day, quartiles of energy intake, and energy-adjusted dietary consumption of fish, meat, and sodium, s past history of diabetes, treatment of hypertension, and treatment of	-	
										Q2 255	0.91 (0.77-1.09)				
										Q3 284	1.06 (0.88-1.27)				
										vegetables	Q1 289	ref			0.080
										Q2 242	0.93 (0.78-1.12)				
										Q3 308	1.18 (0.98-1.43)				
										fruits	Q1 317	ref			0.191
										Q2 273	0.95 (0.80-1.12)				
										Q3 249	0.89 (0.74-1.06)				

②mortality

■メタ解析、系統的レビュー

Reference			Include study							Relative risk (95% CI or p)	Weight	Magnitude of association	
Author	Title	Year	Ref No.	First author	Year	Study period	Study location	Event (*Definition)	Design				Category
Shirota M, Watanabe N, Suzuki M, Kobori M.	Japanese-Style Diet and Cardiovascular Disease Mortality: A Systematic Review and Meta-Analysis of Prospective Cohort Studies	2022	Overall						Stroke mortality meta-analysis of prospective cohort studies (only)	vegetables, highest vs lowest	0.89 (0.80-1.001)		-
			39	Nagura	2009		13				1.09 (0.90-1.33)	15.8	
			40	Okuda	2015		24				0.81 (0.60-1.09)	9.8	
			42	Kinjo	1999		16				1.03 (0.90-1.17)	21.1	
			43 (Men)	Sauvaget	2003		18				0.77 (0.62-0.95)	14.5	
			43 (Women)	Sauvaget	2003		18				0.81 (0.68-0.96)	17.6	
			44 (Men)	Mori	2019		16.9				0.89 (0.68-1.16)	11.3	
			44 (Women)	Mori	2019		16.9				0.78 (0.58-1.05)	9.9	
			Overall						Stroke mortality meta-analysis of prospective cohort studies (only)	fruits, highest vs lowest	0.70 (0.63-0.77)		↓
			39	Nagura	2009		13				0.65 (0.53-0.80)	23.8	
			40	Okuda	2015		24				0.72 (0.54-0.95)	12.6	
			43 (Men)	Sauvaget	2003		18				0.65 (0.53-0.80)	23.8	
			43 (Women)	Sauvaget	2003		18				0.75 (0.64-0.88)	39.8	

■コホート研究(コホートのプール解析含む)

Reference			Study subjects						Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	Magnitude of association
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race						
Okuda N, et al.	Fruit and vegetable intake and mortality from cardiovascular disease in Japan: a 24-year follow-up of the NIPPON DATA80 Study	2015	1980-2004	9112	NIPPON DATA80	stroke mortality	385	Japanese	fruit and vegetable	Q1 71	ref	0.036	age, sex, body mass index,	-
									Q2 97	1.10 (0.81-1.50)				
									Q3 90	0.83 (0.61-1.13)				
									Q4 127	0.80 (0.59-1.09)				

									vegetables				smoking habit, drinking habit, sodium intake and intakes of meat, fish and shellfish, milk and dairy products and soybeans and legumes.	
									Q1	84	ref	0.093		
									Q2	91	1.01 (0.75-1.36)			
									Q3	90	0.85 (0.63-1.14)			
									Q4	120	0.81 (0.60-1.09)			
									fruits					
									Q1	96	ref	0.049		
									Q2	75	0.75 (0.55-1.01)			↓
									Q3	97	0.82 (0.62-1.09)			
									Q4	117	0.72 (0.54-0.95)			
Sauvaget C, et al.	Vegetable and fruit intake and stroke mortality in the Hiroshima/Nagasaki Life Span Study	2003	1980-1998	39337 (men n=14966, women n=23471)	The Life Span Study	stroke mortality	1926 (men n=692, women n=1234)	Japanese	Men					
									vegetables (green-yellow)					
									0-1/week	310	ref	0.0113		↓
									2-4/week daily	242	0.83 (0.69-0.99)			
									fruits					
									0-1/week	271	ref	0.0001	age-stratified, and adjusted for radiation dose, city, BMI, smoking status, alcohol habits, education level, medical history of hypertension, myocardial infarction, diabetes, and consumption of animal products (egg, dairy, fish).	↓ ↓
									2-4/week daily	222	0.81 (0.67-0.99)			
									fruits					
									0-1/week	199	0.65 (0.53-0.80)			
									Women					
									vegetables (green-yellow)					
									0-1/week	421	ref	0.0125		↓
									2-4/week daily	511	0.96 (0.83-1.10)			
									fruits					
									0-1/week	302	0.81 (0.68-0.96)			
									2-4/week daily	345	ref	0.0001		↓
									fruits					
									0-1/week	348	0.97 (0.83-1.15)			
									2-4/week daily	541	0.75 (0.64-0.88)			
Nagura J, et al.	Fruit, vegetable and bean intake and mortality from cardiovascular disease among Japanese men and women: the JACC Study	2009	1989-2003	59485 (men n=25206, women n=34279)	JACC Study	Stroke mortality	1053	Japanese	vegetables				sex, age, BMI, smoking status, alcohol intake, hours of walking, hours of sleep, education years, perceived mental stress, cholesterol intake, SFA intake, n-3 fatty acids intake, sodium intake and histories of hypertension and diabetes	
									Q1	258	ref	0.256		-
									Q2	245	1.02 (0.85-1.22)			
									Q3	254	1.11 (0.92-1.34)			
									Q4	296	1.09 (0.90-1.33)			
									fruits					
									Q1	348	ref	<.001		↓ ↓
									Q2	258	0.81 (0.69-0.96)			
									Q3	284	0.76 (0.64-0.90)			
									Q4	163	0.65 (0.53-0.80)			

Ischaemic stroke (虚血性)

①incidence

■メタ解析、系統的レビュー

Reference			Include study							Relative risk (95% CI or p)	Weight	Magnitude of association
Author	Title	Year	Ref No.	First author	Year	Study period	Study location	Event (*Definition)	Design			
Aune D, et al.	Fruit and vegetable intake and the risk of cardiovascular disease, total cancer and all-cause mortality-a systematic review and dose-response meta-analysis of prospective studies	2017	Overall					Ischaemic stroke	meta-analysis of prospective cohort studies (including Japanese)	vegetables, highest vs lowest	0.84 (0.78-0.90)	↓

	Larsson	2013	10.2	Sweden		0.88 (0.77-1.00)	-	
	Zhang	2011	13.7	Finland		0.84 (0.64-1.04)	-	
	Larsson	2009	13.6	Finland		0.75 (0.66-0.85)	-	
	Mizrahi	2009	24	Finland		0.92 (0.67-1.27)	-	
	Nagura	2009	12.7	Japan		1.03 (0.74-1.43)	-	
	Johnsen	2003	3.09	Denmark		1.00 (0.66-1.53)	-	
	Yokoyama	2000	20	Japan		0.56 (0.20-1.56)	-	
	Joshiपुरa	1999	8	US		0.90 (0.58-1.41)	-	
	Joshiपुरa	1999	14	US		0.89 (0.63-0.90)	-	
Overall				Ischaemic stroke	meta-analysis of prospective cohort studies (including Japanese)	vegetables, per 200g/day increment	0.86 (0.76-0.97)	↓
	Larsson	2013	10.2	Sweden		0.94 (0.87-1.01)	-	
	Zhang	2011	13.7	Finland		0.64 (0.44-0.93)	-	
	Larsson	2009	13.6	Finland		0.67 (0.56-0.80)	-	
	Mizrahi	2009	24	Finland		0.99 (0.78-1.24)	-	
	Nagura	2009	12.7	Japan		1.59 (0.42-6.01)	-	
	Johnsen	2003	3.09	Denmark		1.02 (0.74-1.40)	-	
	Yokoyama	2000	20	Japan		0.15 (0.01-3.89)	-	
	Joshiपुरa	1999	8	US		0.92 (0.71-1.17)	-	
	Joshiपुरa	1999	14	US		0.85 (0.72-1.00)	-	
Overall				Ischaemic stroke	meta-analysis of prospective cohort studies (including Japanese)	fruits, highest vs lowest	0.81 (0.75-0.88)	↓
	Larsson	2013	10.2	Sweden		0.91 (0.80-1.03)	-	
	Zhang	2011	13.7	Finland		0.99 (0.80-1.22)	-	
	Larsson	2009	13.6	Finland		0.82 (0.73-0.93)	-	
	Mizrahi	2009	24	Finland		0.73 (0.54-1.00)	-	
	Nagura	2009	12.7	Japan		0.71 (0.50-1.00)	-	
	Pham	2007	13.8	Japan		0.90 (0.56-1.28)	-	
	Johnsen	2003	3.09	Denmark		0.60 (0.38-0.95)	-	
	Sauvaget	2003	18	Japan		0.79 (0.70-0.91)	-	
	Yokoyama	2000	20	Japan		0.68 (0.41-1.12)	-	
	Joshiपुरa	1999	8	US		0.68 (0.42-1.10)	-	
	Joshiपुरa	1999	14	US		0.59 (0.49-0.98)	-	
Overall				Ischaemic stroke	meta-analysis of prospective cohort studies (including Japanese)	fruits, per 200g/day increment	0.78 (0.69-0.89)	↓
	Larsson	2013	10.2	Sweden		0.94 (0.84-1.05)	-	
	Zhang	2011	13.7	Finland		1.17 (0.82-1.65)	-	
	Larsson	2009	13.6	Finland		0.82 (0.72-0.92)	-	
	Mizrahi	2009	24	Finland		0.68 (0.48-0.97)	-	
	Nagura	2009	12.7	Japan		0.36 (0.12-1.12)	-	
	Johnsen	2003	3.09	Denmark		0.76 (0.60-0.94)	-	
	Sauvaget	2003	18	Japan		0.54 (0.38-0.76)	-	
	Yokoyama	2000	20	Japan		0.29 (0.06-1.45)	-	
	Joshiपुरa	1999	8	US		0.84 (0.62-1.12)	-	
	Joshiपुरa	1999	14	US		0.69 (0.56-0.86)	-	

ホート研究(コホートのプール解析含む)

Reference

Study subjects

Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race	Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	Magnitude of association	
Yoshizaki T, et al.	JPHC Study Group. Association of Vegetable, Fruit, and Okinawan Vegetable Consumption With Incident Stroke and Coronary Heart Disease	2020	1995-2012	16498	JPHC study	Ischaemic stroke	486	Japanese	fruit and vegetable				0.388	age, sex, study area, alcohol intake, cigarette smoking status, type of work, self-reported perceived mental stress, quartiles of body mass index, metabolic equivalent task-hours per day, quartiles of energy intake, and energy-adjusted dietary consumption of fish, meat, and sodium, s past history of diabetes, treatment of hypertension, and treatment of	
										Q1	178	ref			
										Q2	154	0.90 (0.72-1.12)			
										Q3	154	0.90 (0.71-1.15)			
									vegetables						
										Q1	175	ref			
										Q2	137	0.84 (0.66-1.06)			
										Q3	174	1.01 (0.79-1.30)			
									fruits						
	Q1	185	ref												
	Q2	165	1.01 (0.82-1.26)												
	Q3	136	0.85 (0.67-1.07)												

②mortality

■コホート研究(コホートのプール解析含む)

Reference		Study subjects							Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	Magnitude of association	
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race							
Nagura J, et al.	Fruit, vegetable and bean intake and mortality from cardiovascular disease among Japanese men and women: the JACC Study	2009	1989-2003	59485 (men n=25206, women n=34279)	JACC Study	Ischaemic stroke mortality	362	Japanese	vegetables			0.591	sex, age, BMI, smoking status, alcohol intake, hours of walking, hours of sleep, education years, perceived mental stress, cholesterol intake, SFA intake, n-3 fatty acids intake, sodium intake and histories of hypertension and diabetes		
										Q1	92			ref	
										Q2	74			0.87 (0.64-1.20)	
										Q3	98			1.24 (0.91-1.70)	
										Q4	98			1.03 (0.74-1.43)	
									fruits						
										Q1	121			ref	
										Q2	82			0.76 (0.57-1.01)	
	Q3	102	0.83 (0.63-1.11)												
	Q4	57	0.71 (0.50-1.00)												

Cerebral infarction (脳梗塞)

②mortality

■コホート研究(コホートのプール解析含む)

Reference		Study subjects							Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	Magnitude of association
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race						
Sauvaget C, et al.	Vegetable and fruit intake and stroke mortality in the Hiroshima/Nagasaki Life Span Study	2003	1980-1998	39337 (men n=14966, women n=23471)	The Life Span Study	Cerebral infarction mortality	920 (men n=348, women n=572)	Japanese	Men			0.0223	age-stratified, and adjusted for radiation dose, city, BMI, smoking status, alcohol habits	
									vegetables (green-yellow)					
										0-1/week	156			ref
										2-4/week	131			0.88 (0.68-1.14)
										daily	61			0.68 (0.50-0.94)
									fruits					
	0-1/week	131	ref											
	2-4/week	111	0.86 (0.65-1.13)											

	daily	106	0.63 (0.47-0.83)	SMOKING STATUS, ALCOHOL HABITS, education level, medical history of hypertension, myocardial infarction, diabetes, and consumption of animal products (egg, dairy, fish).	
Women					
vegetables (green-yellow)					
0-1/week	210	ref	0.0054		↓
2-4/week	225	0.85 (0.69-1.05)			
daily	137	0.70 (0.55-0.90)			
fruits					
0-1/week	163	ref	0.0175	↓	
2-4/week	152	0.92 (0.72-1.17)			
daily	257	0.77 (0.61-0.96)			

Haemorrhagic stroke (出血性)

①incidence

■メタ解析、系統的レビュー

Reference		Include study													
Author	Title	Year	Ref No.	First author	Year	Study period	Study location	Event (*Definition)	Design	Category	Relative risk (95% CI or p)	Weight	Magnitude of association		
Aune D, et al	Fruit and vegetable intake and the risk of cardiovascular disease, total cancer and all-cause mortality-a systematic review and dose-response meta-analysis of prospective studies	2017	Overall					hemorrhagic stroke	meta-analysis of prospective cohort studies (including Japanese)	vegetables, highest vs lowest	0.85 (0.67-1.07)	-			
				Larsson	2013		10.2	Sweden				0.83 (0.62-1.12)	-		
				Zhang	2011		13.7	Finland				0.71 (0.46-1.09)	-		
				Larsson	2009		13.6	Finland				0.73 (0.56-0.95)	-		
				Nagura	2009		12.7	Japan				1.22 (0.89-1.66)	-		
				Yokoyama	2000		20	Japan				0.51 (0.12-2.16)	-		
				Overall					hemorrhagic stroke	meta-analysis of prospective cohort studies (including Japanese)	vegetables, per 100g/day increment		0.76 (0.55-1.05)	-	
						Larsson	2013		10.2	Sweden			0.89 (0.75-1.05)	-	
						Zhang	2011		13.7	Finland			0.57 (0.26-1.21)	-	
						Larsson	2009		13.6	Finland			0.60 (0.41-0.87)	-	
				Nagura	2009		12.7	Japan			1.89 (0.54-6.60)	-			
				Yokoyama	2000		20	Japan			0.12 (0.00-12.50)	-			
		Overall						hemorrhagic stroke	meta-analysis of prospective cohort studies (including Japanese)	fruits, highest vs lowest	0.74 (0.61-0.90)		↓		
				Larsson	2013		10.2	Sweden			0.70 (0.51-0.97)	-			
				Zhang	2011		13.7	Finland			1.04 (0.67-1.59)	-			
				Larsson	2009		13.6	Finland			0.82 (0.62-1.09)	-			
				Mizrahi	2009		24	Finland			0.47 (0.24-0.92)	-			
				Nagura	2009		12.7	Japan			0.59 (0.42-0.82)	-			
				Yokoyama	2000		20	Japan			0.74 (0.61-0.90)	-			
		Overall						hemorrhagic stroke	meta-analysis of prospective cohort studies (including Japanese)	fruits, per 100g/day increment	0.66 (0.50-0.86)		↓↓		
				Du	2016						0.59 (0.47-0.75)	-			

Larsson	2013	10.2	Sweden	0.75 (0.57-0.99)	-
Zhang	2011	13.7	Finland	1.00 (0.50-1.98)	-
Larsson	2009	13.6	Finland	0.86 (0.65-1.14)	-
Mizrahi	2009	24	Finland	0.17 (0.06-0.50)	-
Nagura	2009	12.7	Japan	0.17 (0.06-0.50)	-
Yokoyama	2000	20	Japan	0.88 (0.10-7.99)	-

■コホート研究(コホートのプール解析含む)

Reference			Study subjects						Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	Magnitude of association			
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race									
Yoshizaki T, et al.	JPHC Study Group. Association of Vegetable, Fruit, and Okinawan Vegetable Consumption With Incident Stroke and Coronary Heart Disease	2020	1995-2012	16498	JPHC study	Intraparenchymal haemorrhage stroke	291	Japanese (Okinawa)	fruit and vegetable	100 ref	0.097	age, sex, study area, alcohol intake, cigarette smoking status, type of work, self-reported perceived mental stress, quartiles of body mass index, metabolic equivalent task-hours per day, quartiles of energy intake, and energy-adjusted dietary consumption of fish, meat, and sodium, s past history of diabetes, treatment of hypertension, and treatment of	-				
									Q1					87	0.99 (0.73-1.34)		
									Q2					104	1.30 (0.95-1.78)		
									Q3								
									vegetables					94 ref	0.009		
									Q1							86	1.11 (0.82-1.51)
									Q2							111	1.54 (1.12-2.13)
									Q3								
									fruits					114 ref	0.205		
Q1	90	0.82 (0.61-1.09)															
Q2	87	0.83 (0.61-1.12)															
Q3																	

②mortality

■コホート研究(コホートのプール解析含む)

Reference			Study subjects						Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	Magnitude of association			
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race									
Sauvaget C, et al.	Vegetable and fruit intake and stroke mortality in the Hiroshima/Nagasaki Life Span Study	2003	1980-1998	39337 (men n=14966, women n=23471)	The Life Span Study	Cerebral hemorrhage mortality	453 (men n=166, women n=287)	Japanese	Men	75 ref	0.4665	age-stratified, and adjusted for radiation dose, city, BMI, smoking status, alcohol habits, education level, medical history of hypertension, myocardial infarction, diabetes, and consumption of animal products (egg, dairy, fish).	-				
									vegetables (green-yellow)								
									0-1/week					53	0.72 (0.49-1.06)		
									2-4/week					38	0.90 (0.58-1.40)		
									daily								
									fruits					65 ref	0.0381		
									0-1/week							60	0.90 (0.61-1.34)
									2-4/week							41	0.63 (0.41-0.97)
									daily								
									Women					94 ref	0.3367		
									vegetables (green-yellow)								
									0-1/week							120	0.94 (0.70-1.26)
2-4/week	73	0.85 (0.60-1.19)															
daily																	
fruits	74 ref	0.0046															
0-1/week			93	1.12 (0.81-1.56)													
2-4/week																	

Nagura J, et al.	Fruit, vegetable and bean intake and mortality from cardiovascular disease among Japanese men and women: the JACC Study	2009	1989-2003	59485 (men n=25206, women n=34279)	JACC Study	Haemorrhagic stroke mortality	393	Japanese	daily	120	0.68 (0.49-0.94)	sex, age, BMI, smoking status, alcohol intake, hours of walking, hours of sleep, education years, perceived mental stress, cholesterol intake, SFA intake, n-3 fatty acids intake, sodium intake and histories of hypertension and diabetes	↓ ↓		
									vegetables	Q1	98			ref	0.235
										Q2	101			1.09 (0.82-1.45)	
										Q3	76			0.88 (0.64-1.21)	
										Q4	118			1.22 (0.74-1.43)	
									fruits	Q1	130			ref	0.002
										Q2	93			0.76 (0.58-1.00)	
										Q3	108			0.72 (0.55-0.95)	
	Q4	62	0.59 (0.42-0.82)												