評価対象論文リスト(要因:甘味飲料、アウトカム:循環器病)

評価判定日:2025/1/20

①既存の系統的レビュー・メタ解析・統合解析

1	Huang Y, Chen Z, Chen B, et al. Dietary sugar consumption and health: umbrella review. *BMJ* . April 2023:e071609. doi:10.1136/bmj-2022-071609
2	Huang C, Huang J, Tian Y, Yang X, Gu D. Sugar sweetened beverages consumption and risk of coronary heart disease: A meta-analysis of prospective studies. *Atherosclerosis* . 2014;234(1):11-16. doi:10.1016/j.atherosclerosis.2014.01.037

②日本人集団の個別疫学研究

3	Huang HL, Abe SK, Sawada N, et al. Association of sugary drink consumption with all-cause and cause-specific mortality: the Japan Public Health Center-based Prospective Study. *Preventive Medicine* . 2021;148:106561. doi:10.1016/j.ypmed.2021.106561
4	Eshak ES, Iso H, Kokubo Y, et al. Soft drink intake in relation to incident ischemic heart disease, stroke, and stroke subtypes in Japanese men and women: the Japan Public Health Centre–based study cohort I. *The American Journal of Clinical Nutrition* . 2012;96(6):1390-1397. doi:10.3945/ajcn.112.037903

■メタ解析、系統的レビュー

			Include study						Design	Category	Relative risk (95% CI or p)	Weight	**Magnitude of association**
Author	Title	Year	Ref No.	First author	Year	Study period	Study location	Event (*Definition)					
Huang Y et al	Dietary sugar consumption and health: umbrella review	2023		Pooled analysis of 4 cohort studies				CHD	Mixed	SSB (sugar sweetened beverage)	250 mL/d increment; 1.17 (1.11 to 1.23)		
				Pooled analysis of 7 cohort studies				CVD	Mixed		1 serving/d increment; 1.08 (1.02 to 1.14)		
				Pooled analysis of 13 cohort studies				CVD mortality	Mixed		Hazard ratio; HR 1.08 (1.04 to 1.12)		
C. Huang et al.	Sugar sweetened beverages consumption and risk of coronary heart disease: A meta-analysis of prospective studies	2014	16	Gardener	2012		USA	CHD incidence	Cohort study	highest vs lowest categories of SSBs consumption	1.04 (0.62, 1.74)	3.14	
			15	de Koning (men)	2012		USA				1.18 (1.06, 1.31)	74.49	
			17	Eshak (women)	2012		Japan				0.88 (0.30, 2.60)	0.72	
			17	Eshak (men)	2012		Japan				1.04 (0.74, 1.48)	6.95	
			14	Fung (women)	2009		USA				1.21 (0.95, 1.53)	14.71	
											1.17 (1.07, 1.28)	100	↑

■コホート研究（コホートのプール解析含む）

			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**
Hsi-Lan Huang et al	Association of sugary drink consumption with all-cause and cause-specific mortality: the Japan Public Health Center-based Prospective Study	2021	1995-2015	70,486	Japan Public Health Center-based Prospective Study (JPHC Study)	Circulatory disease death, Heart disease death, Cerebrovascular disease death	circulatory disease death; 2766 heart disease death; 1,412 cerebrovascular disease death; 1,088	Japanese	Circulatory disease death				age, gender, public health center physical activity, history of hypertension, body mass index, smoking status and intensity, alcohol consumption, intake of total energy, coffee, green tea, biscuit, cake, chocolate, and Japanese-style confectiononery	↑
									Sugar drink consumption category					
									Q1	557	1.00 (Reference)			
									Q2	593	1.13 (1.00–1.27)			
									Q3	549	1.14 (1.01–1.28)	0.01		
									Q4	523	1.11 (0.98–1.26)			
									Q5	544	1.26 (1.11–1.43)			
									Heart disease death					
									Sugar drink consumption category					
									Q1	278	1.00 (Reference)			
									Q2	296	1.14 (0.97–1.35)	<0.001		
									Q3	283	1.20 (1.02–1.42)			
									Q4	267	1.17 (0.98–1.39)			
									Q5	288	1.38 (1.17–1.64)			↑
									Cerebrovascular disease death					
									Sugar drink consumption category					
									Q1	223	1.00 (Reference)			
									Q2	247	1.16 (0.96–1.39)	0.45		
									Q3	206	1.04 (0.86–1.26)			
									Q4	203	1.05 (0.86–1.27)			
									Q5	209	1.17 (0.96–1.42)			—

Ehab S Eshak et al	Soft drink intake in relation to incident ischemic heart disease, stroke, and stroke subtypes in Japanese men and women: the Japan Public Health Centre–based study cohort I	2012	1990-2008	39786	JPHC Study: Cohort 1	incidence cases of ischemic heart disease (CHD), or Stroke	CHD incident; 453 Stroke; 1922 hemorrhagic stroke; 859 ischemic stroke; 1,047	Japanese	Men					
									Total stroke					
									Soft drink intake					
									Never or rarely	513	1.00 (ref)			
									1-2 cups/wk	385	0.89 (0.78, 1.05)			
									3-4 cups/wk	151	0.90 (0.76, 1.06)			
									Almost every day	84	0.76 (0.62, 1.06)	0.07		-
									Hemorrhagic stroke					
									Soft drink intake					
									Never or rarely	187	1.00 (ref)			
									1-2 cups/wk	162	1.02 (0.82, 1.26)			
									3-4 cups/wk	74	1.03 (0.78, 1.35)			
									Almost every day	31	0.77 (0.55, 1.08)	0.3		-
									Ischemic stroke					
									Soft drink intake					
									Never or rarely	321	1.00 (ref)			
									1-2 cups/wk	222	0.85 (0.71, 1.01)			
									3-4 cups/wk	75	0.68 (0.51, 0.89)			
									Almost every day	52	0.75 (0.53, 1.03)	0.07		-
									Ischemic heart disease					
									Soft drink intake					
									Never or rarely	155	1.00 (ref)			
									1-2 cups/wk	112	0.85 (0.66, 1.08)			
									3-4 cups/wk	49	0.85 (0.61, 1.18)			
									Almost every day	44	1.04 (0.74, 1.48)	0.37	age, history of hypertension, history of diabetes, smoking status, ethanol intake, leisure-time sports activity, job status, intakes of seafood, meat , fruit, sodium, BMI, and total energy intake	-
									Women					
									Total stroke					
									Soft drink intake					
									Never or rarely	431	1.00 (ref)			
									1-2 cups/wk	242	1.07 (0.91, 1.25)			
									3-4 cups/wk	74	1.12 (0.87, 1.44)			
									Almost every day	42	1.21 (0.88, 1.68)	0.02		-
									Hemorrhagic stroke					
									Soft drink intake					
									Never or rarely	222	1.00 (ref)			
									1-2 cups/wk	130	1.09 (0.87, 1.36)			
									3-4 cups/wk	40	1.13 (0.80, 1.58)			
									Almost every day	13	0.70 (0.40, 1.20)	0.94		-
									Ischemic stroke					

Soft drink intake					
Never or rarely	205	1.00 (ref)			
1-2 cups/wk	110	1.03 (0.82, 1.30)			
3-4 cups/wk	34	1.12 (0.78, 1.63)			
Almost every day	28	1.83 (1.22, 2.75)	0.001	↑	↑
Ischemic heart disease					
Soft drink intake					
Never or rarely	53	1.00 (ref)			
1-2 cups/wk	25	0.96 (0.59, 1.55)			
3-4 cups/wk	11	1.52 (0.78, 2.95)			
Almost every day	4	0.88 (0.30, 2.60)	0.52		