評価対象論文リスト（要因：野菜果物、アウトカム：糖尿病）

評価判定日：2024/3/28

①既存の系統的レビュー・メタ解析・統合解析

1	Halvorsen RE, Elvestad M, Molin M, Aune D. Fruit and vegetable consumption and the risk of type 2 diabetes: a systematic review and dose-response meta-analysis of prospective studies. *BMJ Nutr Prev Health* . 2021;4(2):519-531. Published 2021 Jul 2. doi:10.1136/bmjnph-2020-000218
2	Wu Y, Zhang D, Jiang X, Jiang W. Fruit and vegetable consumption and risk of type 2 diabetes mellitus: a dose-response meta-analysis of prospective cohort studies. *Nutr Metab Cardiovasc Dis* . 2015;25(2):140-147. doi:10.1016/j.numecd.2014.10.004
3	Li M, Fan Y, Zhang X, Hou W, Tang Z. Fruit and vegetable intake and risk of type 2 diabetes mellitus: meta-analysis of prospective cohort studies. *BMJ Open* . 2014;4(11):e005497. Published 2014 Nov 5. doi:10.1136/bmjopen-2014-005497
4	Li S, Miao S, Huang Y, et al. Fruit intake decreases risk of incident type 2 diabetes: an updated meta-analysis. *Endocrine* . 2015;48(2):454-460. doi:10.1007/s12020-014-0351-6
5	Carter P, Gray LJ, Troughton J, Khunti K, Davies MJ. Fruit and vegetable intake and incidence of type 2 diabetes mellitus: systematic review and meta-analysis. *BMJ* . 2010;341:c4229. Published 2010 Aug 18. doi:10.1136/bmj.c4229
6	Hamer M, Chida Y. Intake of fruit, vegetables, and antioxidants and risk of type 2 diabetes: systematic review and meta-analysis. *J Hypertens* . 2007;25(12):2361-2369. doi:10.1097/HJH.0b013e3282efc214
7	Guo X, Yang B, Tan J, Jiang J, Li D. Associations of dietary intakes of anthocyanins and berry fruits with risk of type 2 diabetes mellitus: a systematic review and meta-analysis of prospective cohort studies. *Eur J Clin Nutr* . 2016;70(12):1360-1367.
8	Wang PY, Fang JC, Gao ZH, Zhang C, Xie SY. Higher intake of fruits, vegetables or their fiber reduces the risk of type 2 diabetes: A meta-analysis. *J Diabetes Investig* . 2016;7(1):56-69. doi:10.1111/jdi.12376
9	Imamura F, O'Connor L, Ye Z, et al. Consumption of sugar sweetened beverages, artificially sweetened beverages, and fruit juice and incidence of type 2 diabetes: systematic review, meta-analysis, and estimation of population attributable fraction. *BMJ* . 2015;351:h3576. Published 2015 Jul 21.
10	Xi B, Li S, Liu Z, et al. Intake of fruit juice and incidence of type 2 diabetes: a systematic review and meta-analysis. *PLoS One* . 2014;9(3):e93471. Published 2014 Mar 28. doi:10.1371/journal.pone.0093471
11	Schwingshackl L, Hoffmann G, Lampousi AM, et al. Food groups and risk of type 2 diabetes mellitus: a systematic review and meta-analysis of prospective studies. *Eur J Epidemiol* . 2017;32(5):363-375. doi:10.1007/s10654-017-0246-y
12	Esposito K, Kastorini CM, Panagiotakos DB, Giugliano D. Prevention of type 2 diabetes by dietary patterns: a systematic review of prospective studies and meta-analysis. *Metab Syndr Relat Disord* . 2010;8(6):471-476. doi:10.1089/met.2010.0009

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13	Kurotani K, Nanri A, Goto A, et al. Vegetable and fruit intake and risk of type 2 diabetes: Japan Public Health Center-based Prospective Study. *Br J Nutr* . 2013;109(4):709-717. doi:10.1017/S0007114512001705
14	Yamamoto J, Ishihara J, Kotemori A, et al. Association Between Okinawan Vegetables Consumption and Risk of Type 2 Diabetes in Japanese Communities: The JPHC Study. *J Epidemiol* . 2020;30(5):227-235. doi:10.2188/jea.JE20180262

■系統的レビュー・メタ解析・統合解析

No	Author	Title	Year	Category	Relative risk (95% CI)	Magnitude of association	Studies included from
1	Halvorsen, RE., et al	Fruit and vegetable consumption and the risk of type 2 diabetes: a systematic review and dose-response meta-analysis of prospective studies.	2021	High vs. low analysis			USA, France, Germany, Netherlands, UK, Italy, Sweden, Denmark, Spain, China, Finland, Singapore, Australia, Japan, Iran, and Greece
				Fruit and vegetable	0.93 (0.89–0.98)	↓	
				Fruits	0.93 (0.90–0.97)	↓	
				Vegetables	0.95 (0.88–1.02)	−	
				Dose-response analysis			
				Fruit and vegetable	0.98 (0.95–1.01)	−	
				Fruits	0.96 (0.92–1.00)	−	
				Vegetables	0.97 (0.94–1.01)	−	
2	Wu, Y., et al	Fruit and vegetable consumption and risk of type 2 diabetes mellitus: a dose-response meta-analysis of prospective cohort studies.	2015	Fruits and vegetables			Chinese, Finland, Japan, USA, Epic-InterAct study (Denmark, France, Germany, Italy, Netherlands, Spain, Sweden, and UK),
				1 serving/day	0.99 (0.97–1.01)	−	
				2 servings/day	0.98 (0.96–1.01)	−	
				3 servings/day	0.97 (0.93–1.01)	−	
				4 servings/day	0.96 (0.92–1.01)	−	
				5 servings/day	0.96 (0.92–1.01)	−	
				6 servings/day	0.96 (0.92–1.01)	−	
				Vegetables			
				1 serving/day	0.96 (0.95–0.99)	↓	
				2 servings/day	0.94 (0.90–0.98)	↓	
				3 servings/day	0.94 (0.89–0.98)	↓	
				4 servings/day	0.96 (0.91–1.01)	−	
				5 servings/day	0.98 (0.92–1.05)	−	
				6 servings/day	1.00 (0.93–1.08)	−	
				Fruits			
				0.5 serving/day	0.95 (0.93–0.97)	↓	
				1 servings/day	0.91 (0.89–0.94)	↓	
				2 servings/day	0.88 (0.85–0.92)	↓	
				3 servings/day	0.92 (0.89–0.96)	↓	
				4 servings/day	0.96 (0.92–1.01)	−	
3	Li, M., et al	Fruit and vegetable intake and risk of type 2 diabetes mellitus: meta-analysis of prospective cohort studies.	2014	Fruit intake	0.93(0.88–0.99)	↓	USA,China, Japan, Finland,and some European countries (Denmark, France, Germany, Greece, Italy, the Netherlands, Norway, Spain, Sweden and the United
				Vegetable intake	0.90 (0.80–1.01)	−	
				Fruit and vegetable intake	0.94 (0.86–1.03)	−	
				Green leafy vegetable intake	0.87 (0.81–0.93)	↓	
4	Li, S., et al	Fruit intake decreases risk of incident type 2 diabetes: an updated meta-analysis.	2015	Fruit (highest vs. lowest)	0.92 (0.86–0.97)	↓	USA, Finland, China, France, Germany, Netherlands, UK, Italy, Sweden, Denmark, Spain, and Japan

5	Carter, P., et al	Fruit and vegetable intake and incidence of type 2 diabetes mellitus: systematic review and meta- analysis.	2010	Vegetables only Fruit only Fruit and vegetables Green leafy vegetables	0.91 (0.76–1.09) 0.93 (0.83–1.01) 1.00 (0.92–1.09) 0.86 (0.77–0.97)	– – – ↓	USA, China, and Finland
6	Hamer, M., et al	Intake of fruit, vegetables, and antioxidants and risk of type 2 diabetes: systematic review and meta-analysis.	2007	Combined fruits and vegetables (≥ 5 servings Fruit intake (≥ 3 servings /day) Vegetable intake (≥ 3 servings /day)	0.962 (0.794– 1.010 (0.884– 0.968 (0.862–	– – –	USA and Finland
7	Guo, X., et al	Associations of dietary intakes of anthocyanins and berry fruits with risk of type 2 diabetes mellitus: a systematic review and meta-analysis of prospective cohort studies.	2016	Fruit (only berry intake) Lowest vs highest	0.82 (0.76–0.89)	↓	USA, Finland
8	Wang, PY., et al	Higher intake of fruits, vegetables or their fiber reduces the risk of type 2 diabetes: A meta-analysis.	2016	Fruit intake Vegetable intake Fruit and vegetable intake Fruit fiber intake Vegetable fiber intake	0.90 (0.87–0.96) 0.91 (0.82–1.01) 0.95 (0.90–1.02) 1.00 (0.99–1.02) 0.94 (0.86–1.03)	↓ – – – –	USA, Australia, China, Europe, Japan, Finland, Germany, British, Caucasian, Japnese American, Native Hawaiian, Taiwanese,
9	Imamura, F., et al	Consumption of sugar sweetened beverages, artificially sweetened beverages, and fruit juice and incidence of type 2 diabetes: systematic review, meta- analysis, and estimation of population attributable fraction.	2015	Fruit juices (one serving/day)	1.05 (0.99–1.11)	–	USA, Japan. Singapore, France, Germany, Netherlands, UK, Italy, Sweden, Denmark, Spain
10	Xi, B., et al	Intake of fruit juice and incidence of type 2 diabetes: a systematic review and meta- analysis.	2014	Highest vs. lowest intake of fruit juice	1.14 (1.03–1.27)	↑	USA, Japan, Finland, France, and Singapore
11	Schwingshackl, L., et al	Food groups and risk of type 2 diabetes mellitus: a systematic review and meta-analysis of prospective studies.	2017	Vegetables (high vs. low) Vegetables (dose-response) Fruits (high vs. low) Fruits (dose-response)	0.95 (0.89–1.01) 0.98 (0.96–1.00) 0.96 (0.93–1.00) 0.98 (0.97–1.00)	– – – –	
12	Esposito, K., et al	Prevention of type 2 diabetes by dietary patterns: a systematic review of prospective studies and meta-analysis.	2010	Highest vs. lowest consumption group	0.39 (0.24–0.54)	↓↓↓	USA, European countries (Denmark, France, Germany, Greece, Italy, Netherlands, Norway, Spain, Sweden, and the United Kingdom), Australia, (Finnish cohort: USA, Finland, Netherlands, Italy, Greece, Former

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No	Author	Title	Year	Study period	Number of subjects for analysis	Source of subjects	Event followed	Definitions	Number of incident cases or deaths	Participant's race	Category	Number among cases	Relative risk (95%CI)	p for trend	Confounding variables considered	Magnitude of association
13	Kurotani, K., et al	Vegetable and fruit intake and risk of type 2 diabetes: Japan Public Health Center-based Prospective Study.	2013	1990-1995 (cohort I) 1993-1998 (cohort II)	48,437 (21,269 men and 27,168 women)	The Japan Public Health Center-based Prospective study	Incidence	Self-reported diabetes	896 (530 men and 366 women)	Japanese	Total vegetable and fruit intake					
											Men					
											Q1 (low)	145	Ref.			
											Q2	118	0·85 (0·66–1·10)			–
											Q3	146	1·08 (0·83–1·40)			–
											Q4 (high)	121	0·93 (0·67–1·29)	0·90		–
											Women					
											Q1 (low)	100	Ref.			
											Q2	89	0·94 (0·69–1·28)			–
											Q3	75	0·79 (0·56–1·11)			–
											Q4 (high)	102	1·04 (0·69–1·55)	0·83		–
											Total vegetable intake					
											Men				age, area, BMI, smoking status, alcohol consumption, leisure-time activity, history of hypertension, coffee consumption, family history of diabetes, Mg intake, Ca intake and energy intake	
											Q1 (low)	145	Ref.			
											Q2	134	0·93 (0·73–1·19)			–
											Q3	134	0·92 (0·70–1·20)			–
											Q4 (high)	117	0·81 (0·59–1·13)	0·25		–
											Women					
											Q1 (low)	96	Ref.			
											Q2	97	1·04 (0·77–1·41)			–
											Q3	74	0·76 (0·54–1·08)			–
											Q4 (high)	99	0·99 (0·66–1·47)	0·53		–
											Total fruit intake					
											Men					
											Q1 (low)	146	Ref.			
											Q2	132	0·94 (0·73–1·19)			–
											Q3	124	0·91 (0·70–1·18)			–
											Q4 (high)	128	0·94 (0·71–1·26)	0·64		–
											Women					
											Q1 (low)	103	Ref.			
											Q2	71	0·73 (0·53–1·00)			–
											Q3	92	0·96 (0·70–1·32)			–
											Q4 (high)	100	1·04 (0·73–1·48)	0·54		–
14	Yamamoto, J., et al	Association Between Okinawan Vegetables Consumption and Risk of Type 2 Diabetes in Japanese Communities: The JPHC Study.	2020	1995-2000 (cohort I) 1998-2003 (cohort II)	10,732 participants (4,714 men and 6,018 women)	The Japan Public Health Center-based Prospective study	Incidence	Self-reported diabetes	216 new cases (123 men and 93 women)	Japanese	Men				age, study area, bmi, cigarette smoking status, alcohol consumption, METs, history of hypertension, family history of diabetes, energy intake, coffee consumption, intakes of meat, fruits.	
											T1 (low)	35	Ref.			
											T2	47	1.38 (0.88 to 2.19)			–
											T3	41	1.22 (0.74 to 2.01)	0.53		–
											Women					
											T1 (low)	34	Ref.			
											T2	25	0.78 (0.46 to 1.33)			–
											T3	34	0.96 (0.57 to 1.62)	0.89		–