

## 評価対象論文リスト(要因:大豆製品、アウトカム:死亡)

評価判定日:2024/9/27

### ①既存の系統的レビュー・メタ解析・統合解析

1	Nachvak SM, Moradi S, Anjom-shoae J, et al. Soy, soy isoflavones, and protein intake in relation to mortality from all causes, cancers, and cardiovascular diseases: a systematic review and dose–response meta-analysis of prospective cohort studies. <i>Journal of the Academy of Nutrition and Dietetics</i> . 2019;119(9):1483-1500.e17. doi:10.1016/j.jand.2019.04.011
---	--

### ②日本人個別研究(ランダム化比較試験、コホート研究、症例対照研究、横断研究などの個別疫学研究)

2	Nakamoto M, Otsuka R, Tange C, et al. Intake of isoflavones reduces the risk of all-cause mortality in middle-aged Japanese. <i>Eur J Clin Nutr</i> . 2021;75(12):1781-1791. doi:10.1038/s41430-021-00890-w
3	Katagiri R, Sawada N, Goto A, et al. Association of soy and fermented soy product intake with total and cause specific mortality: prospective cohort study. <i>BMJ</i> . January 2020:m34. doi:10.1136/bmj.m34
4	Yamasaki K, Kayaba K, Ishikawa S. Soy and soy products intake, all-cause mortality, and cause-specific mortality in japan: the jichi medical school cohort study. <i>Asia Pac J Public Health</i> . 2015;27(5):531-541. doi:10.1177/1010539514539545
5	Nagata C. Soy and fish oil intake and mortality in a japanese community. <i>American Journal of Epidemiology</i> . 2002;156(9):824-831.

■メタ解析、系統的レビュー

Reference			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)				
Nachvak SM, et al.	Soy, Soy Isoflavones, and Protein Intake in Relation to Mortality from All Causes, Cancers, and Cardiovascular Diseases: A Systematic Review and Dose-Response Meta-Analysis of Prospective Cohort Studies	2019						All-cause mortality	Meta-Analysis of prospective cohort studies (including Japanese)	Soy/soy product intake (overall) Highest vs Lowest	0.90 (0.77-1.04)	-
										Soy/soy product intake (Asian) Highest vs Lowest	0.88 (0.72-1.06)	
										Soy/soy product intake (Non-Asian) Highest vs Lowest	0.97 (0.83-1.13)	

■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																			
Nakamoto M, et al.	Intake of isoflavones reduces the risk of all-cause mortality in middle-aged Japanese	2021	1997–2017	2,136	NILS-LSA	All-cause mortality	491	Japanese	Legumes						Age, length of education, employment status, body mass index, smoking habits, medical history of cancer, stroke, heart disease, hypertension, dyslipidemia, diabetes, alcohol intake, and total energy intake.	-											
									T1	167	Ref	0.181															
									T2	159	0.98 (0.75–1.29)																
									T3	165	0.82 (0.62–1.10)																
									Total soy products								0.093										
									T1	166	Ref																
									T2	166	0.91 (0.69–1.19)																
									T3	159	0.78 (0.58–1.04)																
									Total soy products except for seasoning								0.098										
									T1	173	Ref																
									T2	148	0.79 (0.59–1.05)																
									T3	170	0.89 (0.68–1.17)																
									Katagiri R, et al.	Association of soy and fermented soy product intake with total and cause specific mortality: prospective cohort study	2020	1995–2012	92,915	JPHC study			All-cause mortality	13,303	Japanese	Total soy products (males)						Age, geographical area, smoking, frequency of alcohol intake, body mass index, sports or physical exercise, history of diabetes or taking drugs for diabetes, taking antihypertensives, health check-up, total energy intake, and intake of green tea, coffee, fish, meat, fruit, and vegetables.	-
																				Q1	1531	Ref	0.43				
Q2	1593	0.96 (0.89 to 1.03)																									
Q3	1626	0.94 (0.87 to 1.01)																									
Q4	1676	<b>0.91 (0.84 to 0.98)</b>																									
Q5	1944	0.98 (0.91 to 1.06)																									
Fermented soy products (males)						0.05																					
Q1	1657	Ref																									
Q2	1530	<b>0.92 (0.85 to 0.98)</b>																									
Q3	1600	<b>0.91 (0.85 to 0.98)</b>																									
Q4	1763	0.95 (0.88 to 1.03)																									
Q5	1820	<b>0.90 (0.83 to 0.97)</b>																									
Non-fermented soy products (males)						0.32																					
Q1	1654	Ref																									
Q2	1515	0.94 (0.87 to 1.01)																									
Q3	1641	1.00 (0.93 to 1.07)																									
Q4	1723	0.99 (0.92 to 1.06)																									
Q5	1837	1.01 (0.94 to 1.09)																									
Total soy products (females)						0.46																					
Q1	942	Ref																									
Q2	958	1.01 (0.92 to 1.11)																									
Q3	917	0.95 (0.86 to 1.04)																									
Q4	977	0.96 (0.87 to 1.06)																									
Q5	1139	0.98 (0.89 to 1.08)																									
Fermented soy products (females)						0.01																					
Q1	1033	Ref																									
Q2	955	0.95 (0.87 to 1.04)																									
Q3	925	0.91 (0.83 to 1.00)																									
Q4	963	<b>0.90 (0.81 to 0.99)</b>																									
Q5	1057	<b>0.89 (0.80 to 0.98)</b>																									

								<b>Non-fermented soy products (females)</b>			
								Q1	1054	Ref	
								Q2	909	0.93 (0.85 to 1.02)	0.80
								Q3	860	<b>0.84 (0.77 to 0.93)</b>	
								Q4	963	0.95 (0.86 to 1.04)	
								Q5	1147	1.00 (0.92 to 1.10)	
								<b>Frequency of Soy Intake (males)</b>			
								Rarely	61	<b>1.53 (1.13-2.07)</b>	
								1-2 Times/Month	104	0.94 (0.73-1.22)	↑ (U-shaped)
								1-2 Times/wk	164	Ref	
								3-4 Times/wk	107	1.04 (0.81-1.33)	
								Almost Daily	92	<b>1.55 (1.19-2.03)</b>	
								<b>Frequency of Soy Products Intake (males)</b>			
								Less Than 1-2 Times Per Month	30	1.27 (0.87-1.85)	Age, smoking status,
								1-4 Times Per Week	286	Ref	drinking status, body mass
								Almost Every Day	212	1.11 (0.90-1.28)	index, education level,
								<b>Frequency of Soy Intake (females)</b>			hypertension, diabetes, and
								Rarely	29	0.83 (0.51-1.36)	high-density lipoprotein
								1-2 Times/Month	71	0.81 (0.52-1.28)	cholesterol;
								1-2 Times/wk	119	Ref	
								3-4 Times/wk	80	0.67 (0.41-1.08)	
								Almost Daily	55	0.81 (0.51-1.30)	
								<b>Frequency of Soy Products Intake (females)</b>			
								Less Than 1-2 Times Per Month	12	0.76 (0.39-1.49)	
								1-4 Times Per Week	172	Ref	
								Almost Every Day	170	1.06 (0.85-1.33)	
								<b>Total soy products (males)</b>			
								Q1	173	Ref	Age, total energy, marital
								Q2	195	0.93 (0.76, 1.15)	status, years of education,
								Q3	253	1.00 (0.83, 1.22)	body mass index, smoking
								Q4	263	0.96 (0.79, 1.16)	status (never, former,
								Q5	279	0.83 (0.69, 1.01)	current), alcohol intake,
								<b>Total soy products (females)</b>			
								Q1	161	Ref	age at menarche,
								Q2	168	1.05 (0.85, 1.29)	menopausal status, exercise,
								Q3	170	0.91 (0.73, 1.13)	and history of diabetes
								Q4	172	0.93 (0.76, 1.15)	mellitus
								Q5	228	0.83 (0.68, 1.02)	
Yamasaki K, et al.	Soy and Soy Products Intake, All-Cause Mortality, and Cause-Specific Mortality in Japan: The Jichi Medical School Cohort Study	2015	1992–2005	11,066	The Jichi Medical School Cohort Study	All-cause mortality	882	Japanese			
Nagata C, et al.	Soy and fish oil intake and mortality in a Japanese community	2002	1992–1999	13,355 male and 15,724 female	Takayama Study	All-cause mortality	1,163 men and 899 women	Japanese		0.07	Age, total energy, marital status, years of education, body mass index, smoking status (never, former, current), alcohol intake, age at menarche, menopausal status, exercise, and history of diabetes mellitus