

評価対象論文リスト(要因:過剰飲酒(多量飲酒)、アウトカム:早産・低出生体重児・在胎不当過小児)

評価判定日:2024/2/19

①既存の系統的レビュー・メタ解析・統合解析

1	Pereira PPDS, Mata FAFD, Figueiredo ACMG, Silva RB, Pereira MG. Maternal Exposure to Alcohol and Low Birthweight: A Systematic Review and Meta-Analysis. <i>Exposição maternal ao álcool e baixo peso ao nascer: revisão sistemática e metanálise. Rev Bras Ginecol Obstet.</i> 2019;41(5):333-347. doi:10.1055/s-
2	Patra J, Bakker R, Irving H, Jaddoe VW, Malini S, Rehm J. Dose-response relationship between alcohol consumption before and during pregnancy and the risks of low birthweight, preterm birth and small for gestational age (SGA)-a systematic review and meta-analyses. <i>BJOG.</i> 2011;118(12):1411-1421.
3	Henderson J, Gray R, Brocklehurst P. Systematic review of effects of low-moderate prenatal alcohol exposure on pregnancy outcome [published correction appears in <i>BJOG.</i> 2007 Jul;114(7):914-5]. <i>BJOG.</i> 2007;114(3):243-252. doi:10.1111/j.1471-0528.2006.01163.x
4	Strandberg-Larsen K, Poulsen G, Bech BH, et al. Association of light-to-moderate alcohol drinking in pregnancy with preterm birth and birth weight: elucidating bias by pooling data from nine European cohorts. <i>Eur J Epidemiol.</i> 2017;32(9):751-764. doi:10.1007/s10654-017-0323-2
5	Pfinder M, Kunst AE, Feldmann R, van Eijsden M, Vrijkotte TG. Preterm birth and small for gestational age in relation to alcohol consumption during pregnancy: stronger associations among vulnerable women? Results from two large Western-European studies. <i>BMC Pregnancy Childbirth.</i> 2013;13:49. Published 2013 Feb 22. doi:10.1186/1471-2393-13-49
6	Henderson J, Kesmodel U, Gray R. Systematic review of the fetal effects of prenatal binge-drinking. <i>J Epidemiol Community Health.</i> 2007;61(12):1069-1073. doi:10.1136/jech.2006.054213
7	Mamluk L, Jones T, Ijaz S, et al. Evidence of detrimental effects of prenatal alcohol exposure on offspring birthweight and neurodevelopment from a systematic review of quasi-experimental studies. <i>Int J Epidemiol.</i> 2021;49(6):1972-1995. doi:10.1093/ije/dyz272

②日本人集団の個別疫学研究

8	Cho K, Kobayashi S, Araki A, et al. Prenatal alcohol exposure and adverse fetal growth restriction: findings from the Japan Environment and Children's Study. <i>Pediatr Res.</i> 2022;92(1):291-298. doi:10.1038/s41390-021-01595-3
9	Tamura N, Hanaoka T, Ito K, et al. Different Risk Factors for Very Low Birth Weight, Term-Small-for-Gestational-Age, or Preterm Birth in Japan. <i>Int J Environ Res Public Health.</i> 2018;15(2):369. Published 2018 Feb 21. doi:10.3390/ijerph15020369
10	Miyake Y, Tanaka K, Okubo H, Sasaki S, Arakawa M. Alcohol consumption during pregnancy and birth outcomes: the Kyushu Okinawa Maternal and Child Health Study. <i>BMC Pregnancy Childbirth.</i> 2014;14:79. Published 2014 Feb 20. doi:10.1186/1471-2393-14-79
11	Ikehara S, Kimura T, Kakigano A, Sato T, Iso H; Japan Environment Children's Study Group. Association between maternal alcohol consumption during pregnancy and risk of preterm delivery: the Japan Environment and Children's Study. <i>BJOG.</i> 2019;126(12):1448-1454. doi:10.1111/1471-0528.15899
12	Ikeda M, Suzuki S. Habitual Alcohol Consumption during Pregnancy and Perinatal Outcomes. <i>J Nippon Med Sch.</i> 2015;82(3):163-165.
13	Murakami K, Obara T, Ishikuro M, Ueno F, Noda A, Kuriyama S. Associations of education and work status with alcohol use and cessation among pregnant women in Japan: the Tohoku Medical Megabank Project Birth and Three-Generation Cohort Study. <i>BMC Public Health.</i> 2021;21(1):1400. Published 2021 Jul 15. doi:10.1186/s12889-021-11461-w

(Preterm Birth)

■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	Participant's race							
Tamura N et al	Different Risk Factors for Very Low Birth Weight, Term-Small-for-Gestational-Age, or Preterm Birth in Japan	2018	2002-2012						never	317	reference	0.16	maternal age, and maternal education.	NS	
									ex-drinker	358	0.89 [0.78-1.04]				
									current drinker	83	0.87 [0.67-1.08]				
Miyake Y et al	Alcohol consumption during pregnancy and birth outcomes: the Kyushu Okinawa Maternal and Child Health Study	2014	2007-2008						non- drinkers	1356	1.00	0.03	Adjustment for maternal age; region of residence; number of children; family structure; maternal education; maternal employment; body mass index; maternal		
									< 1.0g/day	137	1.69 [0.72-3.51]				
									>=1.0g/day	72	2.58 [1.004-5.80]				
Ikehara S et al	Association between maternal alcohol consumption during pregnancy and risk of preterm delivery: the Japan Environment and Children's Study	2019	2011-2014						alcohol consumption : the first trimester			Adjustment for maternal age, area, body mass index before pregnancy, education, smoking in the first trimester, frequency of passive smoking during the pregnancy, physical activity before pregnancy, primiparity and dietary folate intake for the year before pregnancy.	↑		
									non- drinkers	3745 / 85433	1.00				
									current drinker 1-149 g/week	300 / 7011	0.97 [0.86-1.10]				
									current drinker 150-299 g/week	30 / 761	0.81 [0.56-1.18]				
									current drinker >=300 g/week	24 / 426	1.05 [0.69-1.60]				
									alcohol consumption : the second / third trimester					Adjustment for maternal age, area, body mass index before pregnancy, education, physical activity during pregnancy, smoking in the second/ third trimesters, frequency of passive smoking during the pregnancy, primiparity and dietary folate intake during pregnancy.	↑ ↑ ↑
									non- drinkers	3805 / 90893	1.00				
									current drinker 1-149 g/week	63 / 1814	0.78 [0.60-1.00]				
									current drinker 150-299 g/week	3 / 47	1.27 [0.39-4.12]				
									current drinker >=300 g/week	5 / 26	4.52 [1.68-12.2]				
Cho K et al	Prenatal alcohol exposure and adverse fetal growth restriction: findings from the Japan Environment and Children's Study	2022	2011-2014						z (SD) score			reference	↑		
									non- drinkers	90604	0.751 ± 0.977				
									>=5 g/week	1467	0.044 ± 0.955				
									>=10 g/week	927	0.035 ± 1.009				
									>=20 g/week	538	-0.045 ± 0.997				
									>=50 g/week	277	-0.087 ± 1.040				
									>=100 g/week	132	-0.235 ± 1.049				

(Low birth weight)

■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	<u>Magnitude of association</u>
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or deaths	Participant's race						
Miyake Y, Tanaka K, Okubo H, Sasaki S, Arakawa M.	Alcohol consumption during pregnancy and birth outcomes: the Kyushu Okinawa Maternal and Child Health Study	2014	2007-2008							adjusted ORs(95%CI)			Adjustment for maternal age; region of residence; number of children; family structure; maternal education; maternal employment; body mass index; maternal smoking during pregnancy; and baby's gender.	—
									non- drinkers	1356	1.00	0.64		
									< 1.0g/day	137	0.98 [0.46-1.85]			
									>=1.0g/day	72	1.31 [0.52-2.84]			
Cho K, Kobayashi S, Araki A, Miyashita C, Itoh S, Saijo Y, Ito Y, Sengoku K, Baba T, Minakami H, Nakamura Y, Kishi R; Japan Environment and Children's Study Group.	Prenatal alcohol exposure and adverse fetal growth restriction: findings from the Japan Environment and Children's Study	2022	2011-2014		Alcohol drinkers in the second / third trimester						z (SD) score			
									non- drinkers	90 799	0.072 ± 0.965	reference		
									>=5 g/week	1470	0.141 ± 0.960	0.022		↑
									>=10 g/week	929	-0.008 ± 0.981	0.011		↑
									>=20 g/week	540	-0.039 ± 0.999	0.007		↑
									>=50 g/week	278	-0.096 ± 1.049	0.004		↑
									>=100 g/week	133	-0.215 ± 1.045	0.001		↑

■メタ解析、系統的レビュー

Reference			Include study					Design	Relative risk (95% CI or p)	Weight	Magnitude of association			
Author	Title	Year	Ref No.	First author	Year	Study period	Study location	Event (*Definition)				Category		
Pereira PPDS, Mata FAFD, Figueiredo ACMG, Silva RB, Pereira MG.	Maternal Exposure to Alcohol and Low Birthweight: A Systematic Review and Meta-Analysis	2019		Oster	2016	2000-2009					1.42 (1.26-1.61)	8.67		
				Irner	2014	1993-1995						2.02 (0.76-5.39)	3.18	
				Silva	2011	2007-2008						4.20 (1.25-14.12)	2.37	
				Gorn	2007	NA						1.90 (0.53-6.84)	2.19	
				Okah	2005	1990-2002						0.96 (0.58-1.58)	6.06	
				Bada	2005	1993-1995						1.57 (1.50-1.64)	8.88	
				Dickutè	2002	1995-1998						10.30 (8.34-12.73)	8.22	
				Maruoka	1998	1987-1995					Retrospective	0.90 (0.74-1.09)	8.33	
				Faden	1997	1988						1.02 (1.01-1.04)	8.91	
				Windham	1995	1986-1987						1.40 (0.91-2.15)	6.64	
				Lazzaroni	1993	1989-1990						1.29 (0.52-3.17)	3.54	
				Primatesta	1993	1986-1990						0.71 (0.50-1.00)	7.27	
				McDonald	1992	1982-1984						0.86 (0.79-0.94)	8.79	
				Virji	1991	1980						1.13 (0.95-1.34)	8.44	
				Marbury	1983	1982						0.89 (0.76-1.04)	8.52	
				Witt	2016	2001						1.37 (1.10-1.71)	100	↑
				Bird	2016	2009-2010						0.88 (0.54-1.42)	3.94	
				Sbrana	2016	2010-2011						0.72 (0.49-1.06)	5.12	
				Lundsberg	2016	2010-2011						1.62 (1.03-2.54)	4.27	
				Lundsberg	2015	1996-2000						0.56 (0.34-0.93)	3.67	
				Strutz	2014	1994-2008						0.49 (0.14-1.70)	0.85	
				Miyake	2014	2007-2008						1.10 (0.64-1.89)	3.37	
				Nyjkaer	2014	2003-2006						1.00 (0.40-2.47)	1.5	
				Jaddoe	2007	2002-2006						1.33 (1.00-1.77)	6.76	
				Li	2005	1998-1999						1.16 (0.39-3.42)	1.09	
				Ruijter	1999	1996-1997					Prospective	5.15 (1.07-24.80)	0.55	
				Lundsberg	1997	1988-1991						1.04 (0.88-1.23)	9.06	
				Passaro	1996	1991-1992						0.74 (0.64-0.85)	9.54	
				Olsen	1991	1984-1987						1.12 (0.92-1.37)	8.4	
				Brooke	1989	NA						1.03 (1.02-1.04)	11.02	
	Little	1986	1979-1980						8.70 (2.18-34.72)	0.7				
	Lumley	1985	1981-1982						1.40 (1.18-1.66)	9.06				
	Mills	1984	1974-1977						1.20 (1.09-1.32)	10.3				
	Grisso	1984	1972-1973						0.95 (0.56-1.63)	3.41				
	Sokol	1980	NA						1.89 (1.47-2.43)	7.4				
	Márquez	2011	2007-2008						1.11 (0.98-1.25)	100	—			
	Jackson	2007	2002-2003						20.76 (1.08-400.49)	2.99				
	Mariscal	2006	1998-2002					Case-control	1.38 (0.37-5.13)	12.3				
	Borges	1993	1988						0.83 (0.65-1.06)	46.63				
									1.32 (0.85-2.05)	38.08				
									1.16 (0.69, 1.97)	100	—			

(small for gestational age)

■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
Tamura N et al	Different Risk Factors for Very Low Birth Weight, Term-Small-for-Gestational-Age, or Preterm Birth in Japan	2018	2002-2012						never	392	reference	0.16	maternal age, and maternal education.	↑↑
									ex-drinker	536	1.09 [0.96-1.24]			
									current drinker	186	1.57 [1.32-1.85]			
Miyake Y et al	Alcohol consumption during pregnancy and birth outcomes: the Kyushu Okinawa Maternal and Child Health Study	2014	2007-2008						adjujsted ORs(95%CI)		0.74	aAdjustment formaternal age; region of residence; number of children; family structure; maternal education; maternal employment; body mass index; maternal smoking during pregnancy; gestational age; and baby's gender.	↑↑	
									none	1356				1.00
									< 1.0g/day	137				0.75 [0.33-1.50]
								>=1.0g/day	72	1.41 [0.60-2.94]				

■ケースコントロール研究

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	Type and source	Definition	Number of cases							Number of controls			
Cho K et al	Prenatal alcohol exposure and adverse fetal growth restriction: findings from the Japan Environment and Children's Study	2022	2011-2014	Alcohol drinkers in the first trimester	SGA / non-SGA	4650	91 111	SGA	451	0.837	0.001					
								Non-SGA	8924							
								Alcohol drinkers in the second / third trimester	SGA / non-SGA				4650	91 111	SGA	165
															Non-SGA	2477