

評価対象論文リスト(要因:早産で生まれた人/低出生体重児で生まれた人/在胎不当過小児で生まれた人、
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:2025/3/7

①既存の系統的レビュー・メタ解析・統合解析

1	Shah PS, Shah V, on behalf of Knowledge Synthesis Group on Determinants of Preterm/LBW births. Influence of the maternal birth status on offspring: A systematic review and meta-analysis. Acta Obstet Gynecol Scand. 2009;88(12):1307-1318. doi:10.3109/00016340903358820
2	Seid A, Cumpston MS, Ahmed KY, et al. The intergenerational association of preterm birth: A systematic review and meta-analysis. BJOG. 2025;132(1):18-26. doi:10.1111/1471-0528.17924

②日本人の個別疫学研究

3	Shibata M, Ogawa K, Kanazawa S, et al. Association of maternal birth weight with the risk of low birth weight and small-for-gestational-age in offspring: A prospective single-center cohort study. Fujioka K, ed. PLoS ONE. 2021;16(5):e0251734. doi:10.1371/journal.pone.0251734
4	Kudo R, Iwama N, Hamada H, et al. Maternal birth weight is an indicator of preterm delivery: the Japan environment and children's study. J Dev Orig Health Dis. 2024;15:e11. doi:10.1017/S2040174424000126
5	Tomita H, Iwama N, Hamada H, et al. The impact of maternal and paternal birth weights on infant birth weights: the Japan environment and children's study. J Dev Orig Health Dis. 2023;14(6):699-710. doi:10.1017/S2040174423000387

■メタ解析、系統的レビュー

Author	Title	Year	Include study			Design	Category	Relative risk (95% CI or p)	Weight	<u>Magnitude of association</u>
			RefNo.	First author	Year					
Shah et al.	Influence of the maternal birth status on offspring: a systematic review and meta-analysis	2009								
(maternal LBW→) LBW										
			14	Klebanoff	1984	USA	Cohort	2.21 [1.26, 3.88]	0.9%	
			11	Carr-Hill	1987	UK	Cohort	2.57 [0.84, 7.89]	0.2%	
			15	Klebanoff	1987	Denmark	Cohort	2.05 [1.85, 2.27]	18.5%	
			18	Leff	1992	USA	Case control	1.78 [1.13, 2.81]	1.3%	
			19	Magnus	1993	Norway	Cohort	2.00 [1.34, 2.97]	3.3%	
			22	Sanderson	1995	USA	Cohort	1.98 [1.78, 2.35]	8.9%	
			25	Skjaerven	1997	Norway	Cohort	2.17 [1.93, 2.95]	18.5%	
			28	Emanuel	1999	US	Cohort	2.21 [1.26, 3.88]	0.9%	
			20	Magnus	2001	Norway	Cohort	2.50 [2.07, 3.02]	7.3%	
			12	Collins	2003	USA	Cohort	2.31 [2.20, 2.42]	40.4%	
			26	Veena	2004	India	Cohort	2.40 [1.58, 3.64]	0.4%	
			10	Agnihotri	2008	India	Cohort	3.50 [1.52, 8.08]	0.4%	
				Total				2.23 [2.11, 2.35]		↑ ↑ ↑
(maternal PB) → PB										
			29	Klebanoff	1989	Sweden	Unmatched cohort	0.64 [0.16, 2.56]	0.7%	
			16	Klebanoff	1997	USA	Cohort	1.66 [1.11, 2.49]	6.4%	
			21	Porter	1997	USA	Matched	1.18 [1.02, 1.37]	20.2%	
			28	Emanuel	1999	US	Cohort	1.51 [1.34, 1.71]	22.5%	
			20	Magnus	2001	Norway	Cohort	1.35 [0.96, 1.90]	8.3%	
			23	Selling	2006	Sweden	Cohort	1.32 [1.08, 1.61]	16.1%	
			1	Wilcox	2008	Norway	Cohort	1.59 [1.48, 1.71]	25.8%	
				Total				1.41 [1.26, 1.59]		↑ ↑
(maternal SGA) → SGA										
			29	Klebanoff	1989	Sweden	Unmatched cohort	2.21 [1.41, 3.48]	10.4%	
			16	Klebanoff	1997	USA	Cohort	2.54 [1.89, 3.42]	24.5%	
			23	Selling	2006	Sweden	Cohort	2.75 [2.29, 3.30]	65.1%	
				Total				2.64 [2.28, 3.05]		↑ ↑ ↑

			Include study				Design	Category	Relative risk (95% CI or p)	Weight	Magnitude of association
Author	Title	Year	RefNo.	First author	Year	Study location					
Seid A et al	The intergenerational association of preterm birth: A systematic review and meta-analysis.	2025						(maternal PTB→)PTB	(sample size)		
				Bhattacharya	2010	UK	Cohort	1.35 (1.12, 1.63)	11,576		
				Bladh	2015	Sweden	Cohort	1.40 (1.28, 1.52)	264,794		
				Koire	2020	USA	Cohort	1.95 (1.43, 2.65)	23,816		
				Boyd	2009	Denmark	Cohort	1.43 (1.13, 1.81)	1,487,159		
				Liu	2020	USA	Cohort	1.65 (1.20, 2.27)	5,118		
				Magnus	1993	Norway	Cohort	1.35 (0.96, 1.90)	5,385		
				Smid	2017	USA	Cohort	1.07 (0.50, 2.33)	50,209		
				Ncube	2017	USA	Cohort	1.46 (1.08, 1.98)	6,592		
				Dorner	2017 A	USA	Cohort	1.30 (0.90, 1.80)	37,791		
				Dorner	2017 B	USA	Cohort	1.10 (0.60, 2.20)	134,362		
				Urquia	2019	Canada	Cohort	1.46 (1.29, 1.64)	39,573		
				Wilcox	2007	Norway	Cohort	1.59 (1.46, 1.73)	191,282		
				Sherf	2017	Israel	Cohort	1.29 (0.72, 2.30)	1,616		
				Porter	1998	USA	Cohort	1.18 (1.02, 1.37)	4,186		
				Derakhshi	2014	Iran	Cohort	3.09 (1.08, 8.82)	585		
				Huri	2023	Italy	Case control study	3.57 (1.29, 9.92)	354		
				Klebanoff	1997	Denmark	Cohort	1.50 (0.90, 2.50)	2,029		
Overall, DL I2=34.5%, p=0.080)								1.44 (1.34, 1.54)		↑ ↑	

■コホート研究(コホートのプール解析含む)

Author	Title	Year	Study subjects						Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	
			Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or	Participant's race						
Shibata et al.	Association of maternal birth weight with the risk of low birth weight and small-for-gestational-age in offspring: A prospective single-center cohort study	2021		944				Japanese						
										(maternal LBW→) PB				
										<2500 g	2/23 (8.7)	1.79 (0.39–8.17)	0.375	maternal age at delivery, parity, and prepregnancy body mass index.
										2500–2999 g	23/280 (8.2)	1.56 (0.86–2.82)		
										3000–3499 g	24/444 (5.4)	reference		
										3500–3999 g	9/168 (5.4)	1.12 (0.49–2.56)		
										>4000 g	3/29 (10.3)	1.73 (0.62–6.26)		
										(maternal LBW→) LBW				
										<2500 g	7/23 (30.4)	5.39 (2.06–14.1)	0.009	maternal age at delivery, parity, and prepregnancy body mass index.
										2500–2999 g	37/280 (13.2)	1.68 (1.03–2.72)		
										3000–3499 g	37/444 (8.3)	reference		
										3500–3999 g	16/168 (9.5)	1.19 (0.64–2.20)		
										>4000 g	2/29 (6.9)	0.85 (0.10–3.73)		
										(maternal LBW→) SGA				
										<2500 g	6/23 (26.1)	9.11 (3.14–26.4)	<0.001	maternal age at delivery, parity, and prepregnancy body mass index.
										2500–2999 g	33/280 (11.8)	3.35 (1.82–6.15)		
										3000–3499 g	17/444 (3.8)	reference		
										3500–3999 g	9/168 (5.4)	1.52 (0.66–3.49)		
										>4000 g	1/29 (3.5)	0.95 (0.02–7.43)		

Author	Title	Year	Study subjects						Category	Number among cases	Relative risk (95%CI or p) Adjusted OR (95% CI)	P for trend	Confounding variables considered
			Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or	Participant's race					
Kudo R, et. al	Maternal birth weight is an indicator of preterm delivery: the Japan environment and children's study.	2024				(maternal LBW→) PTB		Japanese	Maternal birth weight <2,500 g 2,500–2,999 g 3,000–3,499 g 3,500–3,999 g ≥4,000 g	246/3,881 (6.3) 1,198/23,344 1,606/38,456 435/11,510 (3.8) 70/1,781 (3.9)	1.514 (1.316–1.742) 1.233 (1.140–1.332) Reference 0.903 (0.809–1.007) 0.922 (0.721–1.179)	<0.0001	Areas where Regional Centres exist, maternal age, maternal height, pre-pregnancy BMI, conception method, parity (primipara or not), history of mental illness, history of kidney disease, history of hyperthyroidism, history of hypothyroidism, history of SLE and/or APS, history of gynecologic disease (PCOS, endometriosis, adenomyosis, uterine malformation), smoking history, secondhand smoking status, and alcohol consumption, socioeconomic factors, including marital status, maternal education level, and annual income.

Author	Title	Year	Study subjects						Category	Number among cases	Relative risk (95%CI or p) Adjusted OR (95% CI)	P for trend	Confounding variables considered
			Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or	Participant's race					
Tomita H, et al.	The impact of maternal and paternal birth weights on infant birth weights: the Japan environment and children's study	2023		37,504 pregnant Japanese women	the Japan environment and children's study	(maternal LBW→)	SGA	Japanese	Maternal birth weight <2,500 g	268/1,808 (14.8)	2.21 (1.91–2.57)	<0.0001	regions where Regional Centres existed, marital status, annual income, infant sex, maternal variables. Maternal variables included age, height, pre-pregnancy BMI, gestational weight gain, conception method, parity (primipara or not), history of diseases (hyperthyroidism, hypothyroidism, SLE and/or APS, mental illness, and kidney disorder), smoking history, alcohol consumption, and highest level of education.
									2,500–2,999 g	1,179/10,971	1.60 (1.46–1.75)		
									3,000–3,499 g	1,117/18,369	Reference		
									3,500–3,999 g	190/5,496 (3.5)	0.69 (0.59–0.81)		
						≥4,000 g	16/855 (1.9)	0.45 (0.27–0.74)					
						(maternal LBW→) LBW		Japanese	Maternal birth weight <2,500 g	268/1,808 (14.8)	2.23 (1.92–2.59)		
									2,500–2,999 g	1,175/10,971	1.64 (1.50–1.79)		
									3,000–3,499 g	1,126/18,369	Reference		
3,500–3,999 g	227/5,496 (4.1)	0.77 (0.67–0.90)											
≥4,000 g	21/855 (2.5)	0.51 (0.33–0.80)											