Supplemental File C

GRADE ratings and meta-analyses for physical size outcomes

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Table 1. Summary of available outcomes

Outcome	Exposure/ Diagnosis	Data	# studies
		SGA (all definitions) as adj OR; crude OR/RR, % or number of cases (all grouped together for unadj OR)	22 studies across all exposure levels
Birth weight	Exposure – light, moderate, heavy, very heavy, any level, confirmed-level unquantifiable	LBW as adj OR; crude OR/RR, % or number of cases (all grouped together for unadj OR)	21 studies across exposure levels
	commined-level unquantinable	Mean/SD or mean diff/95% CI; or median/IQR	34 studies across exposure levels
Birth weight		Mean/SD percentiles	2 studies across exposure levels
		SGA (< 10 th percentile)	1 study across FAS, pFAS and ARND
	Diagnosed– FASD, FAS, pFAS,	LBW	0 studies
	Other FASDs (e.g., ARND, non-syndromal)	Mean/SD	11 studies across diagnostic groups
		Mean/SD percentiles	1 study across FAS, pFAS and ARND
	Exposure – light, moderate, heavy, very heavy, any level,	Mean/SD	14 studies across exposure levels
Dirth langth	confirmed-level unquantifiable	Mean/SD percentiles	1 study with light, moderate and heavy exposure levels
birth length	Diagnosed – FASD, FAS, pFAS,	Mean/SD	4 studies across diagnostic groups
	Other FASDs (e.g., ARND, non- syndromal)	Mean/SD percentiles	1 study across FAS, pFAS and ARND
		Weight < 10 th percentile	6 studies across exposure levels
	Exposure – light, moderate, heavy, very heavy, any level,	Mean/SD (kg) (≤ 12 months of age)	5 studies across exposure levels
	confirmed-level unquantifiable	Mean/SD (kg) (> 12 months of age)	4 studies across exposure levels
		Mean/SD percentiles	1 study with heavy exposure
Postnatal weight		Weight < 10 th percentile	4 studies across diagnostic groups
	Diagnosed – FASD, FAS, pFAS,	Mean/SD (kg) (6-9 years of age)	13 studies across diagnostic groups
	Other FASDs (e.g., ARND, non- syndromal)	Mean/SD (kg) (9 – 18 years of age)	6 studies across diagnostic groups
		Mean/SD percentiles	11 studies across diagnostic groups
		Height < 10 th percentile	6 studies across exposure levels
	Exposure – light, moderate, heavy, very heavy, any level, confirmed-level unquantifiable	Mean/SD (cm) (≤ 12 months of age)	4 studies across light and confirmed unquantifiable exposure levels
Postnatal height	commined-level unquantinable	Mean/SD (cm) (> 12 months of age)	5 studies across exposure levels
		Mean/SD percentiles	1 study with heavy exposure
	Diagnosed – FASD, FAS, pFAS, H	Height < 10 th percentile	4 studies across diagnostic groups
	Other FASDs (e.g., ARND, non- syndromal)	Mean/SD (cm) (6-9 years of age)	13 studies across diagnostic groups

Mean/SD (cm) (9 – 18 years of age)	7 studies across diagnostic groups
Mean/SD percentiles	11 studies across diagnostic groups

Notes:

SGA = small for gestational age (mostly defined as $<10^{th}$ percentile); LBW = low birth weight (mostly defined as <2500g); ND/AE = Neurobehavioural disorder/alcohol exposed; FASD = fetal alcohol spectrum disorder; FAS = fetal alcohol syndrome; pFAS = partial fetal alcohol syndrome; ARND = alcohol related neurodevelopmental disorder.

- Postnatal weight/height = any measurements taken after birth.
- Postnatal weight/height for diagnosed studies minimum age is 6 years as this was youngest age of diagnosis for available studies.
- Sub-group analyses done to separate studies with a high risk of bias score.
- Funnel plots only where there are ≥10 studies.

Table 2. GRADE ratings for birth weight

	l	Certa	inty assessme	nt		Nº of	patients	Ef	fect	Certainty
Nº of studies	Risk of bias	Inconsistency	Indirectness	Imprecision	Other	PAE	Control	Relative (95% CI)	Absolute (95% CI) ¹	
EXPOSU	RE STUDIES									
Small for	gestationa	I age (defined a	t <10 th percent	ile)						
Light pre	natal alcoh	ol exposure (1-2	0g/w in at leas	t one trimeste	er)					
8	serious ^a	not serious	not serious	serious ^d	none	18166	1271434	OR 1.08 (0.99 to 1.18)	7 more per 1000 (from 1 fewer to 15 more)	⊕⊕○○ Low
Moderat	e prenatal	alcohol exposur	e (21-100g/w i	n at least one	trimester)				
8	serious ^a	serious ^b	not serious	serious ^d	none	19594	1236494	OR 1.18 (0.84 to 1.66)	15 more per 1000 (from 14 fewer to 53 more)	⊕○○○ Very low
Heavy pr	enatal alco	hol exposure (1	01-200g/w in a	t least one trir	nester)	_				
8	serious ^a	not serious	not serious	not serious	none	2292	71552	OR 1.30 (1.03 to 1.63)	25 more per 1000 (from 3 more to 51 more)	⊕⊕⊕○ Moderate
Very hea	vy prenata	l alcohol exposu	re (201g+/w in	at least one ti	rimester)					
5	serious ^a	not serious	not serious	not serious	none	204	66837	OR 2.83 (1.79 to 4.48)	133 more per 1000 (from 63 more to 223 more)	⊕⊕⊕○ Moderate
Any leve	l prenatal a	lcohol exposure	(Exposure dich	notomized yes	/no)	•	•			
4	serious ^a	serious ^b	not serious	serious ^d	none	20422	1220299	OR 1.11 (0.85 to 1.44)	9 more per 1000 (from 13 fewer to 36 more)	⊕○○○ Very low
Confirme	ed prenatal	alcohol exposur	e-Level Unqua	ntifiable – no s	studies				<u>, </u>	
Small for	gestationa	ıl age (any defini	tion)							
Light pre	natal alcoh	ol exposure (1-2	Og/w in at leas	st one trimeste	er)					
12	serious ^a	serious ^b	not serious	serious ^d	none	56013	1306218	OR 1.02 (0.91 to 1.14)	2 more per 1000 (from 8 fewer to 12 more)	⊕○○○ Very low
Moderat	e prenatal	alcohol exposur	e (21-100g/w i	n at least one	trimester)				
12	serious ^a	serious ^b	not serious	serious ^d	none	28790	1413949	OR 1.10 (0.86 to 1.41)	8 more per 1000 (12 fewer to 34 more)	⊕○○○ Very low
Heavy pr	enatal alco	hol exposure (1	01-200g/w in a	t least one trir	nester)					

11	serious ^a	not serious	not serious	not serious	none	4005	102426	OR 1.22 (1.01 to 1.46)	18 more per 1000 (1 more to 38 more)	⊕⊕⊕○ Moderate
Very hea	avy prenatal	l alcohol exposu	re (201g+/w in	at least one t	rimester)	l				
7	serious ^a	not serious	not serious	not serious	none	352	95156	OR 2.17 (1.36 to 3.45)	90 more per 1000 (30 more to 170 more)	⊕⊕⊕○ Moderate
Any leve	l prenatal a	lcohol exposure	(exposure dic	hotomized to	yes/no)					
7	serious ^a	serious ^b	not serious	serious ^d	none	51861	1320851	OR 1.10 (0.96 to 1.26)	8 more per 1000 (3 fewer to 22 more)	⊕○○○ Very low
Confirme	ed prenatal	alcohol exposur	re-Level Unqua	ntifiable – no	studies					
Low Birtl	h weight (≤2	2500g)								
Light pre	enatal alcoh	ol exposure (1-2	20g/w in at leas	st one trimeste	er)					
12	serious ^a	not serious	not serious	serious ^d	none	25091	63079	OR 1.00 (0.88 to 1.13)	0 fewer per 1000 (from 7 fewer to 8 more)	⊕⊕⊖⊖ Low
Moderat	te prenatal a	alcohol exposur	e (21-100g/w i	n at least one	trimester)				
13	serious ^a	serious ^b	not serious	serious ^d	none	22385	72553	OR 1.08 (0.88 to 1.34)	5 more per 1000 (from 7 fewer to 20 more)	⊕○○○ Very low
Heavy pr	renatal alco	hol exposure (10	01-200g/w in a	t least one tri	mester)					
12	serious ^a	serious ^b	not serious	not serious	none	3357	72079	OR 1.75 (1.30 to 2.36)	44 more per 1000 (from 18 more to 77 more)	⊕⊕⊖⊖ Low
Very hea	vy prenatal	l alcohol exposu	re (201+g/w in	at least one t	rimester)					
6	serious ^a	not serious	not serious	not serious	none	585	60450	OR 2.06 (1.39 to 3.06)	61 more per 1000 (from 23 more to 112 more)	⊕⊕⊕○ Moderate
Any leve	l prenatal a	lcohol exposure	(exposure dic	hotomized to	yes/no)					
10	serious ^a	not serious	not serious	serious ^d	none	29633	246044	OR 1.10 (0.99 to 1.21)	6 more per 1000 (from 1 fewer to 13 more)	⊕⊕○○ Low
Confirme	ed prenatal	alcohol exposur	re-Level Unqua	ntifiable – no	studies					
Birth we	eight (grams))								
Light pre	enatal alcoh	ol exposure (1-2	20g/w in at leas	st one trimeste	er)					
10	serious ^a	serious ^b	not serious	serious ^d	none	7156	33779	-	MD 1.65 higher (45.18 lower to 48.47 higher)	⊕○○○ Very low

Modera	te prenatal a	alcohol exposure	e (21-100g/w i	n at least one	trimester)				
14	serious ^a	serious ^b	not serious	serious ^d	none	20104	43678	-	MD 26.14 lower (59.46 lower to 7.19 higher)	⊕○○○ Very low
Heavy p	renatal alco	hol exposure (10	01-200g/w in a	it least one trii	mester)					
14	serious ^a	serious ^b	not serious	not serious	none	2632	34240	-	MD 193.36 lower (267.80 lower to 118.91 lower)	⊕⊕○○ Low
Very he	avy prenatal	l alcohol exposu	re (201g+/w in	at least one to	rimester)	_	_	_	_	_
6	serious ^a	serious ^b	not serious	not serious	none	220	21178	-	MD 272.9 lower (411.26 lower to 134.55 lower)	⊕⊕○○ Low
Any leve	el prenatal a	Icohol exposure	e (exposure dic	notomized to	yes/no)					
4	serious ^a	serious ^b	not serious	serious ^d	none	3867	10841	-	MD 2.44 lower (68.14 lower to 63.27 higher)	⊕○○○ Very low
Confirm	ed prenatal	alcohol exposur	re-Level Unqua	intifiable						
4	serious ^a	serious ^b	not serious	serious ^{d,e}	none	196	529	-	MD 232.80 lower (476.64 lower to 11.05 higher)	⊕○○○ Very low
Birth we	eight Percent	tiles								
	_	ol exposure (1-2	20g/w in at lea	st one trimesto	er)					
1	serious ^a	not serious	serious ^c	serious ^f	none	96	277	-	MD 6.80 lower (13.08 lower to 0.52 lower)	⊕○○○ Very low
Modera	te prenatal a	alcohol exposure	e (21-100g/w i	n at least one	trimester	.)				
1	serious ^a	not serious	serious ^c	serious ^f	none	23	277	-	MD 18.80 lower (30.34 lower to 7.26 lower)	⊕○○○ Very low
Heavy p	renatal alco	hol exposure (10	01-200g/w in a	it least one trii	mester)					
1	serious ^a	not serious	serious ^c	serious ^f	none	33	47	-	MD 6.10 lower (17.92 lower to 5.72 lower)	⊕○○○ Very low
Very he	avy prenatal	l alcohol exposu	re (201g+/w in	at least one t	rimester)					
1	serious ^a	not serious	serious ^c	serious ^f	none	24	277	-	MD 20.80 lower (31.19 lower	⊕○○○ Very low

						1				
									to 10.41 lower)	
Any lev	el prenatal	alcohol exposu	re (exposure d	ichotomized to	yes/no) –	no studi	es			
Confirm	ned prenata	al alcohol expos	ure-Level Unqı	uantifiable – no	o studies					
DIAGNO	SED STUDII	ES								
Small fo	r Gestation	al Age (defined	as <10 th Percer	ntile)						
FASD —	no studies									
FAS						•		1		
1	serious ^a	not serious	serious ^c	serious ^f	none	96	313	OR 4.47 (2.76 to 7.24)	223 more per 1000 (129 more to 335 more)	⊕○○○ Very low
pFAS (p	FAS or pFAS	S/FAS or dysmor	phic)							
1	serious ^a	not serious	serious ^c	serious ^f	none	81	313	OR 1.94 (1.17 to 3.22)	74 more per 1000 (14 more to 156 more)	⊕○○○ Very low
Other F	ASDs (ARNE	O, ND-AE, SE-AE,	Non-syndrom	al)						
1	serious ^a	not serious	serious ^c	serious ^f	none	78	313	OR 2.42 (1.45 to 4.03)	107 more per 1000 (34 more to 201 more)	⊕○○○ Very low
Low bir	th weight									
FASD, F	AS, pFAS, O	ther FASDs - no	studies							
Birth we	eight (gram:	s)								
FASD										
6	serious ^a	not serious	not serious	not serious	none	746	810	-	MD 397.16 lower (502.46 lower to 291.87 lower)	⊕⊕⊕○ Moderate
FAS										
4	serious ^a	serious ^b	not serious	serious ^e	none	241	2147	-	MD 594.71 lower (743.06 lower to 446.35 lower)	⊕○○○ Very Low
pFAS (p	FAS or pFAS	S/FAS or dysmor	rphic)					•		
5	serious ^a	serious ^b	not serious	serious ^e	none	214	1580	-	MD 384.91 lower (651.38 lower to 118.45 lower)	⊕○○○ Very Low
Other F	_	O, ND-AE, SE-AE,	Non-syndrom			•			T.	
4	serious ^a	serious ^b	not serious	serious ^{d,e}	none	201	1521	-	MD 198.72 lower (426.95 lower to 29.51 higher)	⊕○○○ Very Low
Birthwe	ight Percen	tiles								
FASD –	no studies									
FAS										
1	serious ^a	not serious	serious ^c	not serious	none	96	313	-	MD 16.00 lower (22.05 lower to 9.95 lower)	⊕⊕○○
<u> </u>				<u>. </u>		<u> </u>		1		

pFAS (p	FAS or pFA	S/FAS or dysmo	rphic)									
1	serious ^a	not serious	serious ^c	not serious	none	81	313	-	MD 8.50 lower (14.98 lower to 2.02 lower)	⊕⊕○○		
Other F	Other FASDs (ARND, ND-AE, SE-AE, Non-syndromal)											
1	serious ^a	not serious	serious ^c	not serious	none	78	313	-	MD 13.80 lower (19.93 lower to 7.67 lower)	⊕⊕○○ Low		

Notes: CI: confidence interval; **MD:** mean difference; **OR:** odds ratio; 1) **LBW**: Absolute effect calculated based on Australian population average LBW = 6.6% (66 per 1000) (AIHW, 2019); **SGA**: Absolute effect calculated based on Australian population average for SGA = 9.4% (94 per 1000) (AIHW, 2019).

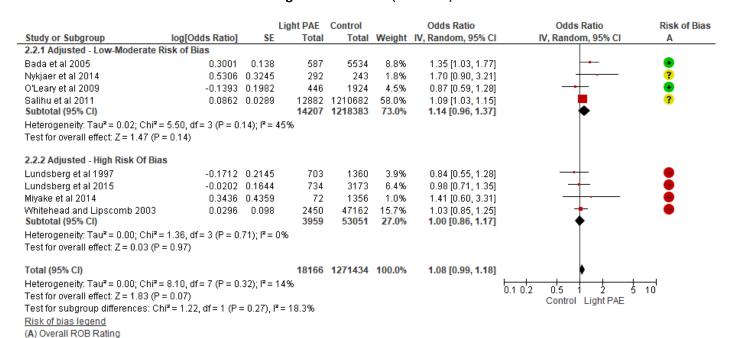
Explanations: a) >50% of studies were rated as moderate or high risk of bias; b) High heterogeneity ($I^2 > 50\%$ and significant chi-square for heterogeneity); c) >50% of studies had a sample not representative of the Australian populations not representative of Australia; d) 95% CI for overall estimate crossed the line of no effect; e) Wide 95% CI for overall estimate; f) optimal information size not met

Meta-analyses for birth weight

Exposure studies

Small for Gestational Age (<10th percentile)

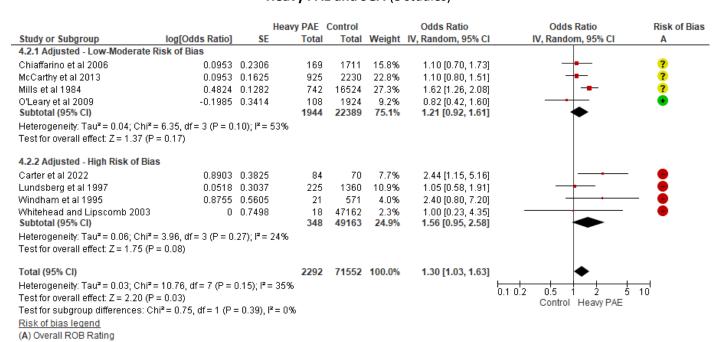
Light PAE and SGA (8 studies)



			Moderate PAE	Control		Odds Ratio	Odds Ratio	Risk of Bias
Study or Subgroup	log[Odds Ratio]	SE	Total	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
3.2.1 Adjusted - Low-M	Noderate Risk of B	ias						
Chiaffarino et al 2006	-0.1054	0.2069	346	1711	12.6%	0.90 [0.60, 1.35]		?
McCarthy et al 2013	0.0862	0.1209	2473	2230	14.3%	1.09 [0.86, 1.38]	 -	?
Mills et al 1984	0.1044	0.0532	13877	16524	15.2%	1.11 [1.00, 1.23]	-	? ? ?
Nykjaer et al 2014	0.6931	0.2606	600	243	11.4%	2.00 [1.20, 3.33]		?
Salihu et al 2011	0.7467	0.0562		1210682	15.2%	2.11 [1.89, 2.36]	_	?
Subtotal (95% CI)			18846	1231390	68.8%	1.35 [0.93, 1.97]	•	
Heterogeneity: Tau² = 0).16; Chi² = 82.18, d	if= 4 (P⊸	< 0.00001); I ^z = 9	5%				
Test for overall effect: Z	= 1.56 (P = 0.12)							
3.2.2 Adjusted - High R	isk of Bias							
Lundsberg et al 1997	-0.9824	0.3508	372	1360	9.4%	0.37 [0.19, 0.74]		•
Lundsberg et al 2015	-0.3711	0.2533	307	3173	11.6%	0.69 [0.42, 1.13]		•
Windham et al 1995	0.9555	0.3158		571	10.2%	2.60 [1.40, 4.83]		
Subtotal (95% CI)			748	5104	31.2%	0.88 [0.31, 2.52]		
Heterogeneity: Tau² = 0).77; Chi² = 18.62, d	f= 2 (P ·	< 0.0001); I²= 89	%				
Test for overall effect: Z	= 0.24 (P = 0.81)							
Total (95% CI)			19594	1236494	100.0%	1.18 [0.84, 1.66]	•	
Heterogeneity: Tau ² = 0).19; Chi ^z = 108.68,	df = 7 (P	< 0.00001); I ^z =	94%			0.1 0.2 0.5 1 2 5	10
Test for overall effect: Z	= 0.98 (P = 0.33)						0.1 0.2 0.5 1 2 5 Control Moderate PAE	
Test for subgroup differ	rences: Chi² = 0.57	, df = 1 (F	° = 0.45), I² = 0%				Control Moderate I AL	
Risk of bias legend								

Heavy PAE and SGA (8 studies)

(A) Overall ROB Rating



		\	/ery Heavy PAE	Control		Odds Ratio	Odds Ratio	Risk of Bias
Study or Subgroup	log[Odds Ratio]	SE	Total	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
5.2.1 Adjusted - Low-Moderate	Risk of Bias							
Chiaffarino et al 2006	1.1632	0.3227	45	1711	37.3%	3.20 [1.70, 6.02]		?
Mills et al 1984	0.8242	0.4686	37	16524	20.9%	2.28 [0.91, 5.71]	-	?
Subtotal (95% CI)			82	18235	58.1%	2.87 [1.70, 4.83]	•	
Heterogeneity: Tau² = 0.00; Chi²	= 0.35, df $= 1$ (P $= 0$	$.55); I^2 = 0^{\circ}$	%					
Test for overall effect: Z = 3.97 (P	o < 0.0001)							
5.2.2 Adjusted - High Risk of Bia	ne.							
		0.5000	54	4000	47.00	4 22 10 42 2 421		
Lundsberg et al 1997		0.5286	54	1360	17.0%	1.22 [0.43, 3.43]	I	_ 👅
Whitehead and Lipscomb 2003 Subtotal (95% CI)	1.454	0.6886	28 82	47162 48522	10.6% 27.6%	4.28 [1.11, 16.50] 2.11 [0.62, 7.18]		•
Heterogeneity: Tau² = 0.41; Chi²	= 2.10, df = 1 (P = 0	.15); I ^z = 5:	2%					
Test for overall effect: Z = 1.20 (P	9 = 0.23)							
5.2.3 Unadjusted - High Risk of								
Little et al 1990	1.7386	0.582	40	80	14.3%	5.69 [1.82, 17.80]		
Subtotal (95% CI)			40	80	14.3%	5.69 [1.82, 17.80]		-
Heterogeneity: Not applicable								
Test for overall effect: Z = 2.99 (P	' = 0.003)							
Total (95% CI)			204	66837	100.0%	2.83 [1.79, 4.48]	•	
Heterogeneity: Tau ² = 0.04; Chi ²	= 4.71 df = 4 (P = 0	32): F = 19				2.00 [0, 0]		\dashv
Test for overall effect: Z = 4.45 (P		.52/,1 - 1.	5.0				0.00 0.2	20
Test for subgroup differences: C	•	= 0.46) 12:	= 0%				Control Very Heavy PAI	E
Risk of bias legend	1.00, 01 = 2 (1	3.40/,1						
(A) Overall ROB Rating								
(A) Overall ROD Rating								

Any Level PAE and SGA (4

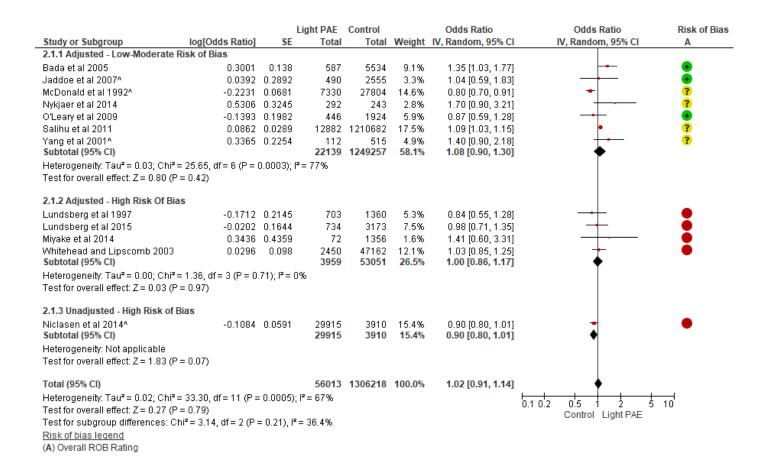
studies)

				Stu	aies)			
			Any Level PAE	Control		Odds Ratio	Odds Ratio	Risk of Bias
Study or Subgroup	log[Odds Ratio]	SE	Total	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
1.2.1 Adjusted - Low-I	Moderate Risk of Bi	as						
Salihu et al 2011	0.2231	0.0251	16003	1210682	30.0%	1.25 [1.19, 1.31]		?
Tamura et al 2018	0.4898	0.0927	1917	6322	26.6%	1.63 [1.36, 1.96]		?
Subtotal (95% CI)			17920	1217004	56.6%	1.41 [1.09, 1.82]	•	
Heterogeneity: Tau² = 1	0.03; Chi² = 7.71, df:	= 1 (P = 0)	i.005); I² = 87%					
Test for overall effect: 2	Z = 2.58 (P = 0.010)							
1.2.2 Adjusted - High F	Risk of Bias							
Lundsberg et al 2015	-0.2107	0.1282	1630	2843	23.9%	0.81 [0.63, 1.04]	- • 	
Subtotal (95% CI)			1630	2843	23.9%	0.81 [0.63, 1.04]	•	
Heterogeneity: Not app	olicable							
Test for overall effect: 2	Z = 1.64 (P = 0.10)							
1.2.3 Unadjusted - Hig	h Risk of Bias							
Hutchinson et al 2019	-0.236	0.1833	872	452	19.5%	0.79 [0.55, 1.13]		•
Subtotal (95% CI)			872	452	19.5%	0.79 [0.55, 1.13]	•	
Heterogeneity: Not app								
Test for overall effect: 2	Z = 1.29 (P = 0.20)							
Total (95% CI)			20422	1220299	100.0%	1.11 [0.85, 1.44]	•	
Heterogeneity: Tau ² = 1	0.06; Chi² = 25.96, d	f=3(P<	0.00001); $I^2 = 88$	3%			0102 05 1 2 5 1	Ä
Test for overall effect: 2	Z = 0.74 (P = 0.46)						0.1 0.2 0.5 1 2 5 1 Control Any Level PAE	U
Test for subgroup diffe	rences: Chi² = 11.0	0, df = 2 (i	$P = 0.004$), $I^2 = 8$	1.8%			Control Any Level FAE	
Risk of bias legend								
(A) Overall ROB Rating)							

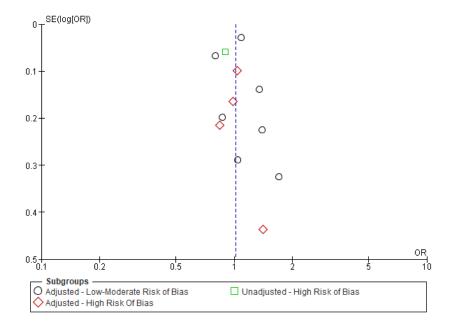
Confirmed PAE-Level Unquantifiable and SGA (0 studies)

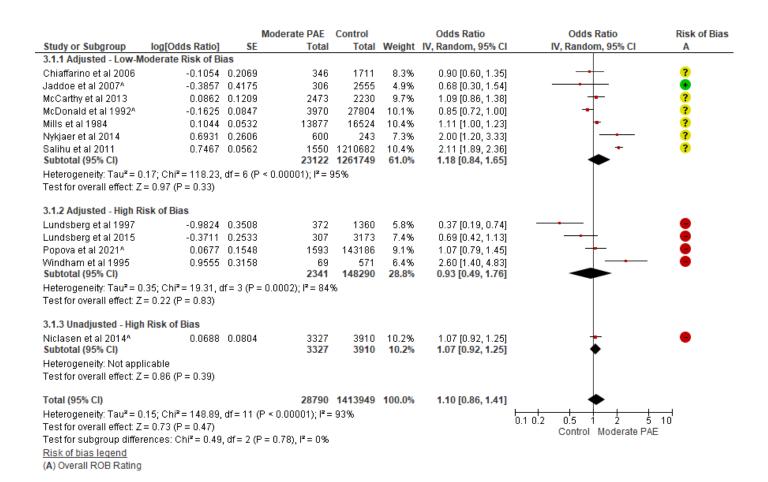
Small for Gestational Age (all definitions)

Light PAE and SGA (all) (12 studies)



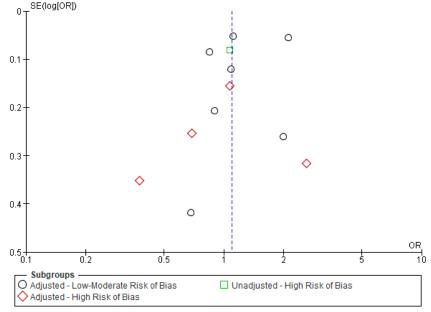
Notes. ^Definition of SGA: Niclasen et al 2014 = SGA not defined; Jaddoe et al. 2007 = SGA < SDs; McDonald et al. 1992 = SGA <5th percentile; Yang et al. 2001 = SGA between 5th and 10th percentile; all other studies = SGA < 10th percentile. Funnel Plot: **Light PAE and SGA (all definitions)**





Notes. ^Definition of SGA: Niclasen et al 2014 and Popova et al. 2021 = SGA not defined; Jaddoe et al. 2007 = SGA < SDs; McDonald et al. 1992 = SGA <5th percentile; all other studies = SGA < 10th percentile.

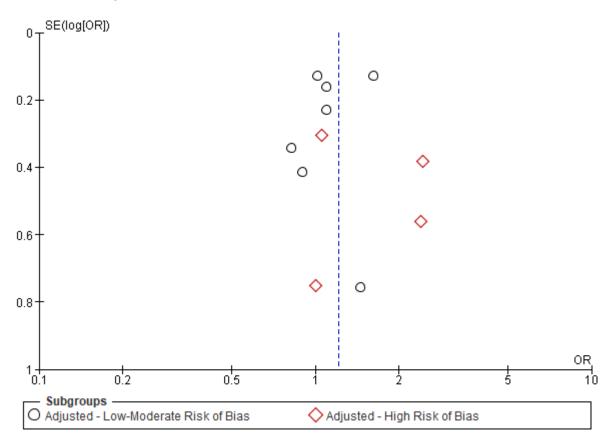
Funnel Plot: Moderate PAE and SGA (all definitions)



			Heavy PAE	Control		Odds Ratio	Odds Ratio	Risk of Bias
Study or Subgroup	log[Odds Ratio]	SE	Total	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
4.1.1 Adjusted - Low-Moderate R	lisk of Bias							
Chiaffarino et al 2006	0.0953	0.2306	169	1711	11.3%	1.10 [0.70, 1.73]		?
Jaddoe et al 2007^	0.3716	0.7552	490	2555	1.5%	1.45 [0.33, 6.37]		•
O'Leary et al 2009	-0.1985	0.3414	108	1924	6.3%	0.82 [0.42, 1.60]		•
McCarthy et al 2013	0.0953	0.1625	925	2230	17.2%	1.10 [0.80, 1.51]	-	?
McDonald et al 1992^	0.0198	0.1304	1203	27804	21.0%	1.02 [0.79, 1.32]	+	?
Mills et al 1984	0.4824	0.1282	742	16524	21.3%	1.62 [1.26, 2.08]	-	? ? ?
Yang et al 2001^	-0.1054	0.4137	20	515	4.5%	0.90 [0.40, 2.02]		?
Subtotal (95% CI)			3657	53263	83.1%	1.16 [0.95, 1.41]	◆	
Heterogeneity: Tau² = 0.02; Chi² =	9.25, df = 6 (P = 0 .	.16); l² = 0	35%					
Test for overall effect: Z = 1.49 (P	= 0.14)							
4.1.2 Adjusted - High Risk of Bias	s							
Carter et al 2022	0.8903	0.3825	84	70	5.2%	2.44 [1.15, 5.16]	_ 	•
Lundsberg et al 1997	0.0518	0.3037	225	1360	7.6%	1.05 [0.58, 1.91]		•
Windham et al 1995	0.8755	0.5605	21	571	2.6%	2.40 [0.80, 7.20]	+	•
Whitehead and Lipscomb 2003	0	0.7498	18	47162	1.5%	1.00 [0.23, 4.35]		•
Subtotal (95% CI)			348	49163	16.9%	1.56 [0.95, 2.58]	-	
Heterogeneity: Tau² = 0.06; Chi² =	3.96, df = 3 (P = 0.	.27); $I^2 = 0$	24%					
Test for overall effect: Z = 1.75 (P	= 0.08)							
Total (95% CI)			4005	102426	100.0%	1.22 [1.01, 1.46]	•	
Heterogeneity: Tau ² = 0.03; Chi ² =	: 14.36, df = 10 (P =	= 0.16); l ²	= 30%					j
Test for overall effect: Z = 2.07 (P	, ,						0.1 0.2 0.5 1 2 5 10	ı
Test for subgroup differences: Ch		= 0.28), l ^a	= 14.9%				Control Heavy PAE	
Risk of bias legend								
(A) Overall ROB Rating								
(11) OTOTALL TOD I Calling								

Notes. ^Definition of SGA: Jaddoe et al. 2007 = SGA < SDs; McDonald et al. 1992 = SGA < 5^{th} percentile; Yang et al. 2001 = SGA between 5^{th} and 10^{th} percentile; all other studies = $SGA < 10^{th}$ percentile.

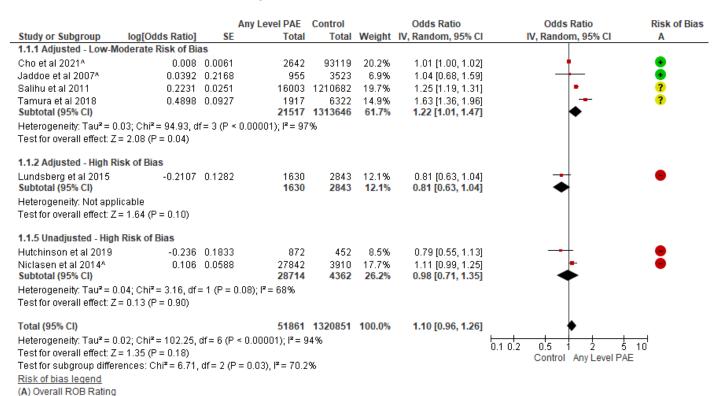
Funnel Plot: Heavy PAE and SGA (all definitions)



		٧	ery Heavy PAE	Control		Odds Ratio	Odds Ratio	Risk of Bias
Study or Subgroup lo	og[Odds Ratio]	SE	Total	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
5.1.1 Adjusted - Low-Moderate Risk	of Bias							
Chiaffarino et al 2006	1.1632	0.3227	45	1711	20.8%	3.20 [1.70, 6.02]	_ -	?
McDonald et al 1992^	0.174	0.3085	138	27804	21.5%	1.19 [0.65, 2.18]		?
Mills et al 1984	0.8242	0.4686	37	16524	14.6%	2.28 [0.91, 5.71]	-	?
Yang et al 2001^	0.2624	0.6014	10			1.30 [0.40, 4.23]	_	?
Subtotal (95% CI)			230	46554	67.5%	1.89 [1.11, 3.21]	•	
Heterogeneity: Tau² = 0.13; Chi² = 5.	46, df= 3 (P = 0.	14); $I^2 = 46$	i%					
Test for overall effect: $Z = 2.34$ (P = 0	.02)							
5.1.2 Adjusted - High Risk of Bias								
Lundsberg et al 1997	0.1957	0.5286	54	1360	12.6%	1.22 [0.43, 3.43]		•
Whitehead and Lipscomb 2003	1.454	0.6886	28	47162	8.8%	4.28 [1.11, 16.50]		— •
Subtotal (95% CI)			82	48522	21.4%	2.11 [0.62, 7.18]		
Heterogeneity: Tau ² = 0.41; Chi ² = 2.1	10, df = 1 (P = 0.	15); l² = 52	2%					
Test for overall effect: $Z = 1.20$ (P = 0	.23)							
5.1.3 Unadjusted - High Risk of Bias								
Little et al 1990	1.7386	0.582	40	80	11.1%	5.69 [1.82, 17.80]		– •
Subtotal (95% CI)			40	80	11.1%	5.69 [1.82, 17.80]		-
Heterogeneity: Not applicable								
Test for overall effect: Z = 2.99 (P = 0	.003)							
Total (95% CI)			352	95156	100.0%	2.17 [1.36, 3.45]	•	
Heterogeneity: Tau ² = 0.17; Chi ² = 10	183 df=6 (P=1	n ng\· i² = 4	5%					⊣
Test for overall effect: Z = 3.26 (P = 0		,,						20
Test for subgroup differences: Chi²=	,	= 0.23), I ² =	: 32.8%				Control Very Heavy PA	E
Risk of bias legend								
(A) Overall ROB Rating								

Notes. ^Definition of SGA: McDonald et al. 1992 = SGA <5th percentile; Yang et al. 2001 = SGA between 5th and 10th percentile; all other studies = SGA < 10^{th} percentile.

Any Level PAE and SGA (all) (7 studies)

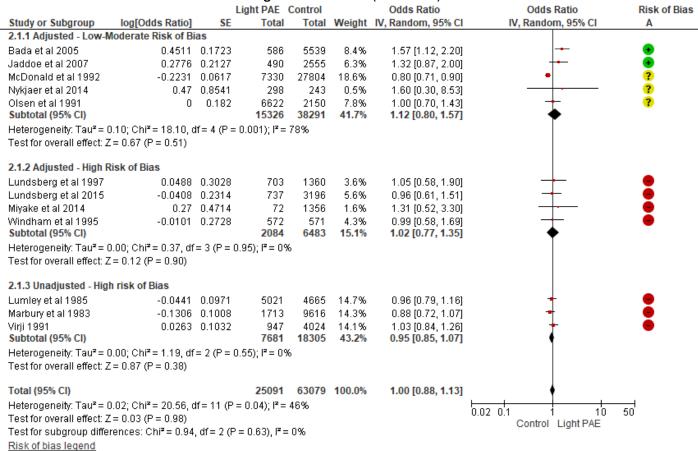


Notes. ^Definition of SGA: Cho et al. 2021, Niclasen et al 2014 = SGA not defined; Jaddoe et al. 2007 = SGA < SDs; all other studies = SGA < 10^{th} percentile.

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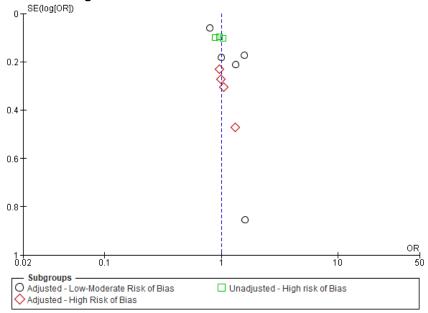
Low Birth weight (<2500g)

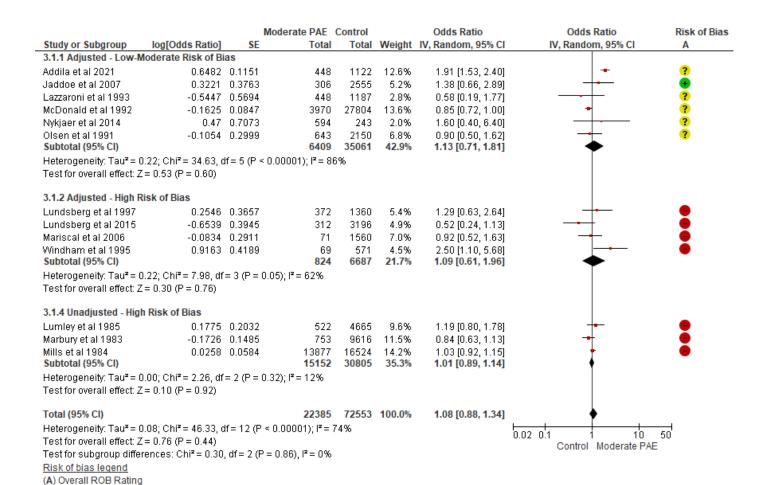




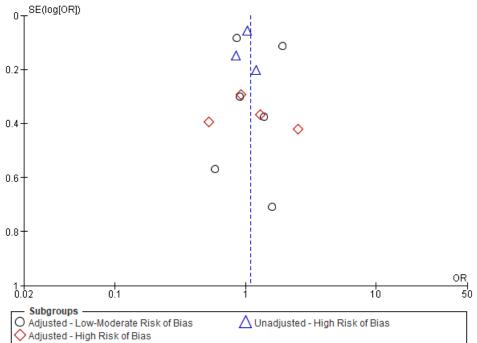
Funnel Plot: Light PAE and LBW

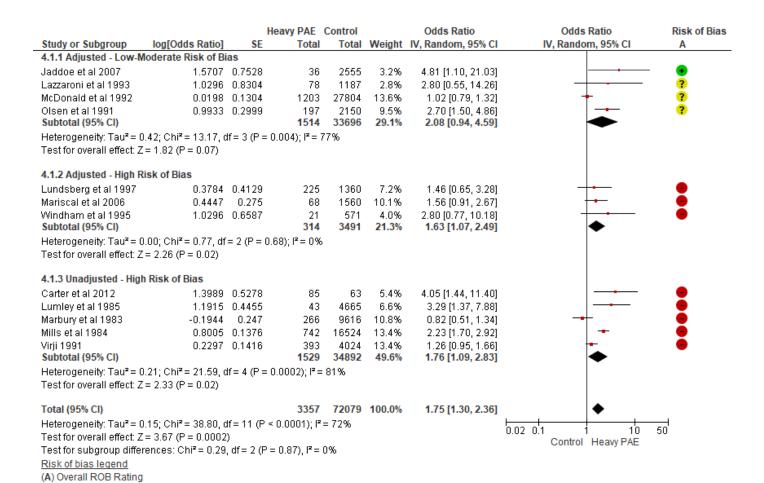
(A) Overall ROB Rating



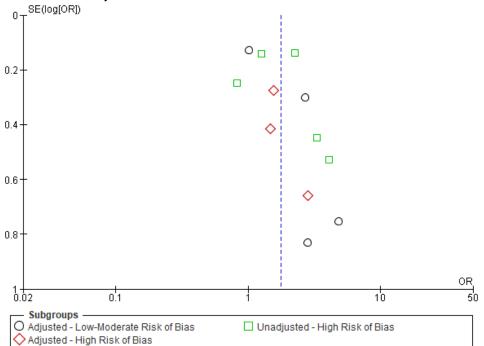


Funnel Plot: Moderate PAE and LBW



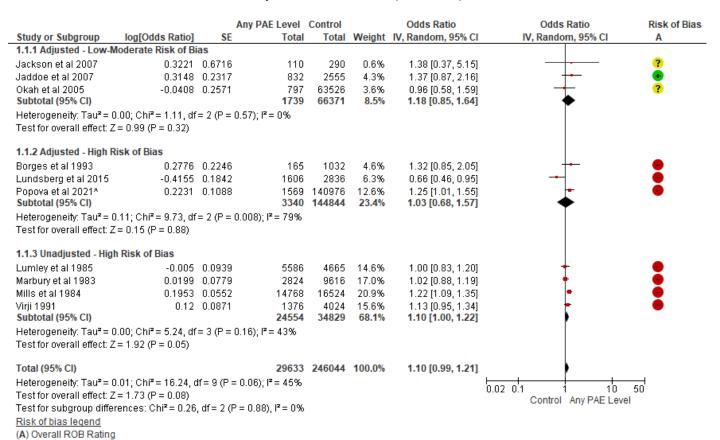


Funnel Plot: Heavy PAE and LBW



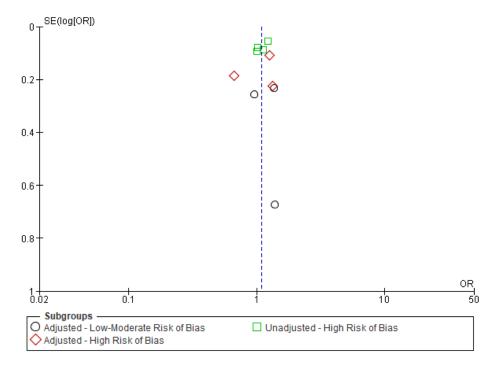
			Very Heavy PAE	Control		Odds Ratio	Odds Ratio	Risk of Bias
Study or Subgroup	log[Odds Ratio]	SE	Total	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	A
5.1.1 Adjusted - Low-M	oderate Risk of Bi	as						_
Addila et al 2021	1.039	0.2301	116	1122	24.8%	2.83 [1.80, 4.44]	-	?
McDonald et al 1992 Subtotal (95% CI)	0.174	0.3085	138 254		19.7% 44.5%	1.19 [0.65, 2.18] 1.88 [0.81, 4.38]	•	?
Heterogeneity: Tau² = 0.	.30; Chi² = 5.05, df	= 1 (P =	0.02); I²= 80%					
Test for overall effect: Z	= 1.46 (P = 0.14)							
5.1.2 Adjusted - High Ri	isk of Bias							
Lundsberg et al 1997	0.0198	0.8064	54	1360	5.3%	1.02 [0.21, 4.95]		
Marbury et al 1983	0.0953	0.5161	92		10.8%	1.10 [0.40, 3.02]		
Subtotal (95% CI)			146	10976	16.1%	1.08 [0.46, 2.52]	~	
Heterogeneity: Tau² = 0. Test for overall effect: Z		= 1 (P =	0.94); I² = 0%					
5.1.4 Unadjusted - High	Risk of Bias							
Mills et al 1984	1.1284	0.2607	149	16524	22.7%	3.09 [1.85, 5.15]		
Virji 1991	0.9909	0.3646	36		16.7%	2.69 [1.32, 5.50]		
Subtotal (95% CI)			185	20548	39.4%	2.95 [1.95, 4.47]	•	
Heterogeneity: Tau² = 0.		,	0.76); I²= 0%					
Test for overall effect: Z	= 5.10 (P < 0.0000	1)						
Total (95% CI)			585	60450	100.0%	2.06 [1.39, 3.06]	•	
Heterogeneity: Tau² = 0.	.11; Chi² = 9.86, df	= 5 (P =	0.08); I² = 49%				0.02 0.1 1 10 50	
Test for overall effect: Z:	= 3.59 (P = 0.0003))					Control Very Heavy PAE	
Test for subgroup differ	ences: Chi²= 4.64,	df = 2 (F	° = 0.10), I² = 56.9°	%			Series very riody rive	
Risk of bias legend								
(A) Overall ROB Rating								

Any Level PAE and LBW (10 studies)



Note. ^Popova et al. 2021 = LBW not defined.

Funnel Plot: Any Level PAE and LBW



Confirmed PAE-Level Unknown and LBW (0 studies)

Birth weight (grams)

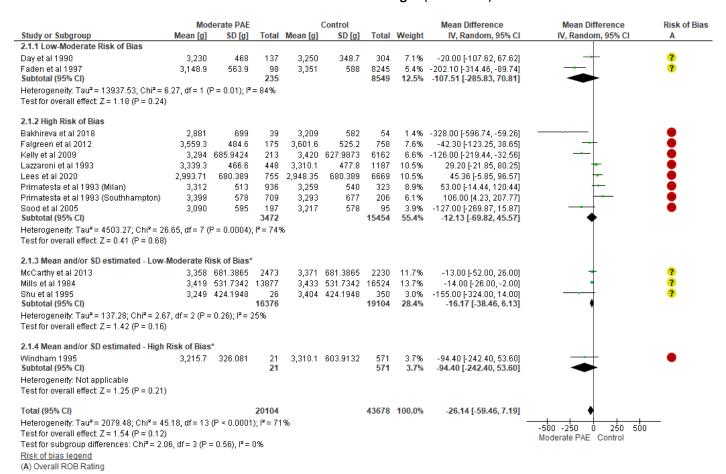
				Light	PAE and	d Birt	hweig	ht (10 studies)			
	Li	ght PAE			Control			Mean Difference	Mean Di	fference	Risk of Bias
Study or Subgroup	Mean [g]		Total	Mean [g]	SD [g]	Total	Weight	IV, Random, 95% CI	IV, Rando	m, 95% CI	Α
1.1.1 Low-Moderate	Risk of Bias										
Faden et al 1997 Subtotal (95% CI)	3,389.1	639.1	124 124	3,351	588	8245 8245	7.4% 7.4%	38.10 [-75.10, 151.30] 38.10 [-75.10, 151.30]			?
Heterogeneity: Not ap Test for overall effect:		= 0.51)									
1.1.2 High Risk of Bia	ıs										
Falgreen et al 2012	3,618.8	511.3	675	3,601.6	525.2	758	11.2%	17.20 [-36.52, 70.92]		-	•
Kelly et al 2009	3,454	605.8515	2549	3,420	627.9873	6162	12.5%	34.00 [5.73, 62.27]		 -	•
Lees et al 2020	3,129.79	725.748	93	2,948.35	680.39	6669	5.7%	181.44 [33.04, 329.84]			→ 🛑
Virji et al 1991	3,299.59	680.9	948	3,301.14	698	4024	11.5%	-1.55 [-49.96, 46.86]			•
Sayal et al 2013 Subtotal (95% CI)	3,410	550	1963 6228	3,420	560	5547 23160	12.5% 53.3%	-10.00 [-38.45, 18.45] 17.06 [-14.41, 48.53]		•	
Heterogeneity: Tau ² = Test for overall effect:			= 4 (P =	0.04); 2=	60%						
1.1.3 Mean and/or SI	,	•	rato D	ick of Dige	*						
						250	6.70	20.001.07.00.457.001			<u> </u>
Shu et al 1995 Subtotal (95% CI)	3,434	420.987	48 48	3,404	420.987	350 350	6.7% 6.7 %	30.00 [-97.00, 157.00] 30.00 [-97.00, 157.00]			•
Heterogeneity: Not ap											
Test for overall effect:	Z= 0.46 (P=	= 0.64)									
1.1.4 Mean and/or SI		- High Risk									_
Marianian et al 2020	3,200	74			59.2	97		-100.00 [-118.07, -81.93]			•
Miyake et al 2014		320.8668	72		320.9887	1356	9.7%	-56.70 [-132.76, 19.36]		_	•
Windham 1995	3,311.9	623.5671	572	3,310.1	623.5671	571	10.0%	1.80 [-70.50, 74.10]			•
Subtotal (95% CI)			756			2024	32.6%	-58.85 [-122.78, 5.07]		İ	
Heterogeneity: Tau ² = Test for overall effect:			f= 2 (P	= 0.02); l² :	= 75%						
Total (95% CI)			7156			33779	100.0%	1.65 [-45.18, 48.47]	-	-	
Heterogeneity: Tau ² =	4355.97; Ch	ni²= 92.70,	df = 9 (l	P < 0.0000	1); I² = 90%				1000	100	
Test for overall effect:			,						-200 -100 Light PAE		200'
Test for subgroup diff	ferences: Ch	$i^2 = 4.87$, df	= 3 (P :	= 0.18), I ²=	38.4%				LIGHTEAL	Control	
Risk of bias legend											
(A) Overall ROB Ratir	ng										

Notes: *mean and/or SD estimated: Marianian et al 2020 from median and IQR; Miyake et al 2014 from adjusted mean and 95% CI; Shu et al 1995 and Windham et al 1995 from adjusted mean difference and 95% CI

Funnel Plot: Light PAE and Birth weight SE(MD) Δ 20 Δ 40 0 60 \Diamond 80 100| -200 MD, -100 Ó 100 200 Subgroups O Low-Moderate Risk of Bias 🔷 High Risk of Bias Mean and/or SD estimated - Low-Moderate Risk of Bias*

Mean and/or SD estimated - High Risk of Bias*

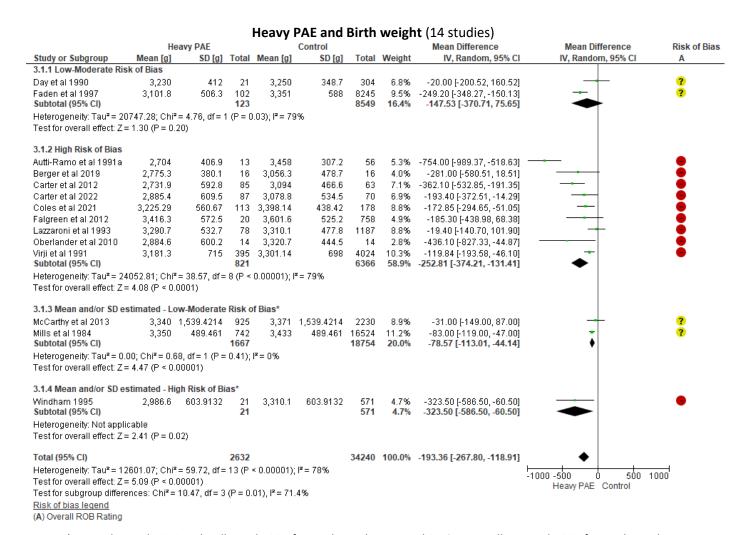
Moderate PAE and Birthweight (14 studies)



Notes: *McCarthy et al 2013 and Mills et al 1984 from adjusted mean and 95% CI; Shu et al 1995 and Windham et al 1995 from adjusted mean difference and 95% CI

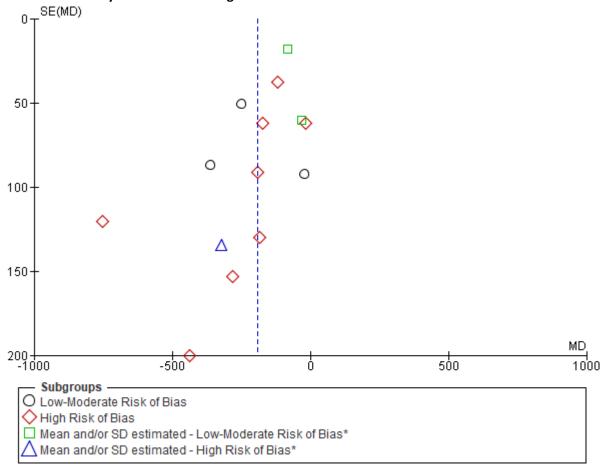
Funnel Plot: Moderate PAE and Birth weight SE(MD) ь 50 100 150 MD 200 -500 -250 250 500 Ó Subgroups O Low-Moderate Risk of Bias High Risk of Bias

□ Mean and/or SD estimated - Low-Moderate Risk of Bias* ∆ Mean and/or SD estimated - High Risk of Bias*

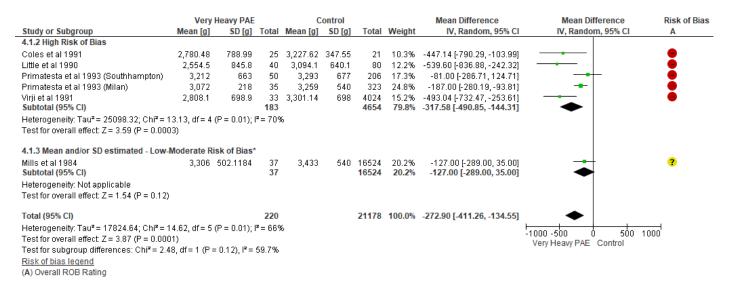


Notes: *McCarthy et al 2013 and Mills et al 1984 from adjusted mean and 95% CI; Windham et al 1995 from adjusted mean difference and 95% CI

Funnel Plot: Heavy PAE and Birth weight

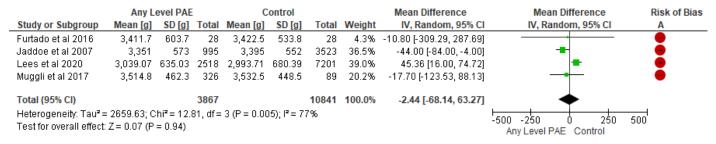


Very Heavy PAE and Birth weight (6 studies)



Notes: *Mills et al 1984 from adjusted mean and 95% CI.

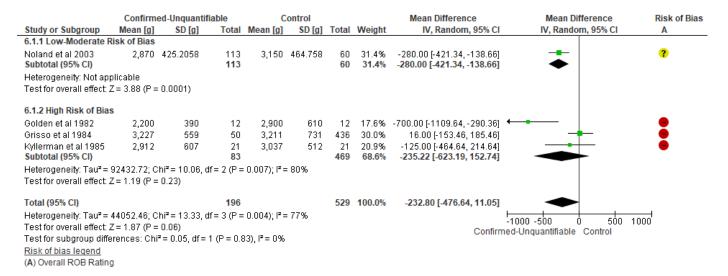
Any Level PAE and Birth weight (4 studies)



Risk of bias legend
(A) Overall ROB Rating

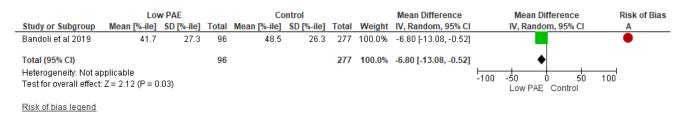
(A) Overall ROB Rating

Confirmed PAE-Level Unquantifiable and Birth weight (4 studies)

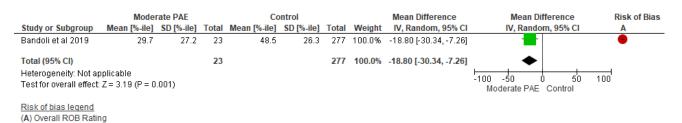


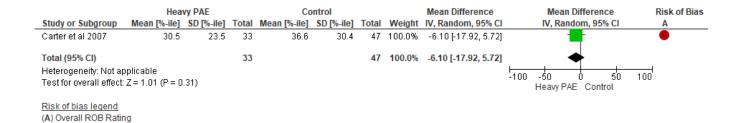
Birth weight Percentiles

Light PAE and Birth weight Percentiles (1 study)



Moderate PAE and Birth weight Percentiles (1 study)





Very Heavy PAE and Birth weight Percentiles (1 study)

Study on Submers		eavy PAE	T-4-1		ontrol	T-4-1	18/-:	Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	wean [%-ne]	SD [%-lie]	rotai	Mean [%-ile]	SD [%-lie]	rotai	Weight	IV, Random, 95% CI	IV, Random, 95% CI	A
Bandoli et al 2019	27.7	24.8	24	48.5	26.3	277	100.0%	-20.80 [-31.19, -10.41]	-	•
Total (95% CI)			24			277	100.0%	-20.80 [-31.19, -10.41]	•	
Heterogeneity: Not ap	pplicable								-100 -50 0 50	100
Test for overall effect	: Z= 3.92 (P < 0	.0001)							Very Heavy PAE Control	100
Risk of bias legend										
(A) Overall ROB Ratin	ng									

Any Level PAE and Birth weight Percentiles (0 studies)

-

Confirmed PAE-Level Unquantifiable and Birth weight Percentiles (0 studies)

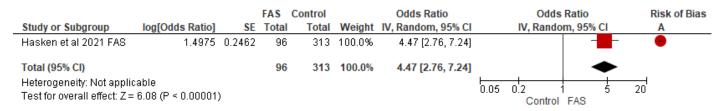
Diagnosed studies

Small for Gestational Age (Birthweight <10th Percentile)

FASD and SGA (0 studies)

-

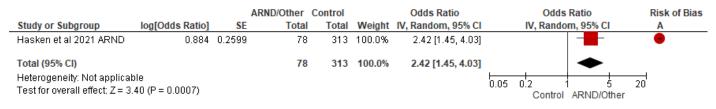
FAS and SGA (1 study)



Study or Subgroup	log[Odds Ratio]	SE	pFAS Total	Control Total	Weight	Odds Ratio IV, Random, 95% CI	Odds Ratio IV, Random, 95% CI	Risk of Bias A
Hasken et al 2021 pFAS	0.6629	0.2585	81	313	100.0%	1.94 [1.17, 3.22]	-	•
Total (95% CI) Heterogeneity: Not applica Test for overall effect: Z = 2			81	313	100.0%	1.94 [1.17, 3.22]	0.05 0.2 1 5 Control pFAS	20

Risk of bias legend
(A) Overall ROB Rating

Other FASDs and SGA (1 study)

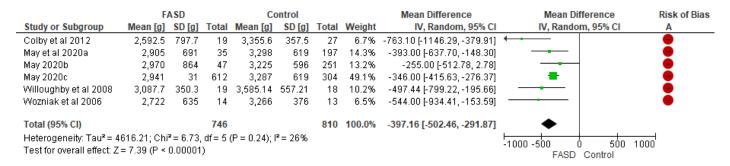


Risk of bias legend
(A) Overall ROB Rating

Low birth weight – no studies

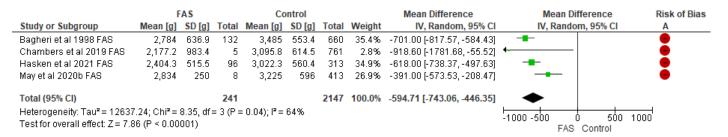
Birth weight (in grams)

FASD and Birthweight (6 studies)



Risk of bias legend (A) Overall ROB Rating

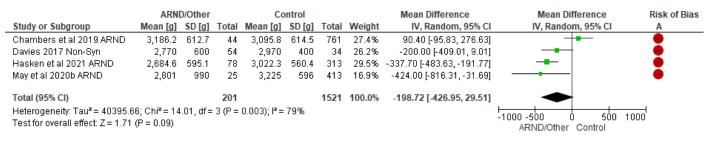
FAS and Birth weight (4 studies)



	р	FAS		Co	ontrol			Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean [g]	S D [g]	Total	Mean [g]	SD [g]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
Chambers et al 2019 pFAS	2,781.3	754.3	44	3,095.8	614.5	761	20.5%	-314.50 [-541.61, -87.39]		
Davies 2017 FAS/pFAS	2,260	500	25	2,970	400	34	20.2%	-710.00 [-947.68, -472.32]		
Hasken et al 2021 pFAS	2,813.8	595.4	81	3,022.3	560.4	313	22.5%	-208.50 [-352.26, -64.74]		•
Lynch et al 2015 pFAS	2,505.58	631.28	48	3,216.14	490.25	59	20.8%	-710.56 [-928.60, -492.52]		•
May et al 2020b pFAS	3,335	780	16	3,225	596	413	16.0%	110.00 [-276.49, 496.49]		•
Total (95% CI)			214			1580	100.0%	-384.91 [-651.38, -118.45]	-	
Heterogeneity: Tau ² = 76689. Test for overall effect: Z = 2.83			:4(P <	0.0001); l²	= 86%				-1000 -500 0 500 10 pFAS Control	000

Risk of bias legend
(A) Overall ROB Rating

Other FASDs and Birth weight (4 studies)



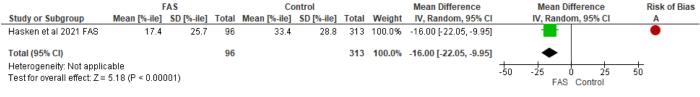
Risk of bias legend (A) Overall ROB Rating

Birth weight Percentiles

FASD and Birth weight Percentile (0 studies)

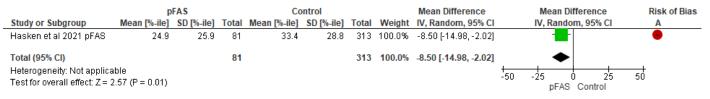
-

FAS and Birth weight Percentile (1 study)



Risk of bias legend
(A) Overall ROB Rating

pFAS and Birth weight Percentile (1 study)



	ARNI	D/Other		Co	ntrol			Mean Difference		Mean D	ifference		Risk of Bias
Study or Subgroup	Mean [%-ile]	SD [%-ile]	Total	Mean [%-ile]	SD [%-ile]	Total	Weight	IV, Random, 95% CI		IV, Rando	om, 95% CI		Α
Hasken et al 2021 ARND	19.6	23.6	78	33.4	28.8	313	100.0%	-13.80 [-19.93, -7.67]		-			
Total (95% CI)			78			313	100.0%	-13.80 [-19.93, -7.67]		•			
Heterogeneity: Not applicat Test for overall effect: Z = 4.)							-50	-25 ARND/Other	0 25 Control	50	

Table 3. GRADE ratings for birth length

		Cert	ainty assessme	ent		Nº of	patients		Effect	
Nº of studies	Risk of bias	Inconsistenc y	Indirectness	Imprecision	Other	PAE	Control	Relative (95% CI)	Absolute (95% CI)	Certainty
EXPOSUR	E STUDIES					•				
Birth Len	gth (cm)									
Light pre	natal alcoh	nol exposure (1-	20g/w in at lea	st one trimest	er)					
1	serious ^a	not serious	serious ^c	serious ^{d,f}	none	112	97	-	MD 0.50 lower (1.31 lower to 0.31 higher)	⊕○○○ Very low
Moderate	e prenatal	alcohol exposu	re (21-100g/w	in at least one	trimeste	·)				
3	serious ^a	serious ^b	not serious	serious ^d	none	2062	144410	-	MD 0.15 lower (0.45 lower to 0.15 higher)	⊕○○○ Very low
Heavy pro	enatal alco	ohol exposure (101-200g/w in a	at least one tr	imester)					
5	serious ^a	serious ^b	serious ^c	not serious	none	234	1451	-	MD 0.99 lower (1.92 lower to 0.06 lower)	⊕○○○ Very low
Very heav	vy prenata	I alcohol expos	ure (201g+/w ii	n at least one	trimester)					
2	seriousª	not serious	not serious	serious ^{e,f}	none	57	101	-	MD 2.67 lower (3.92 lower to 1.43 lower)	⊕⊕⊖⊖ Low
Any level	prenatal a	alcohol exposur	e (exposure dic	hotomized as	yes/no)					
1	serious ^a	not serious	not serious	serious ^{d,f}	none	28	28	-	MD 0.12 lower (0.97 lower to 0.73 higher)	⊕⊕○○ Low
Confirme	d prenatal	alcohol exposu	ıre-Level Unqu	antifiable						
3	serious ^a	serious ^b	not serious	serious ^{e,f}	none	146	96	-	MD 1.27 lower (2.45 lower to 0.10 lower)	⊕○○○ Very low
Birth Len	gth Percer	ntiles								
	-	nol exposure (1-	·20g/w in at lea	st one trimest	:er)					
1	serious ^a	not serious	serious ^c	serious ^f	none	96	277	-	MD 7.70 lower (13.49 lower to 1.91 lower)	⊕○○○ Very low
Moderate	e prenatal	alcohol exposu	re (21-100g/w	in at least one	trimeste	.)				
1	serious ^a	not serious	serious ^c	serious ^{e,f}	none	23	277	-	MD 22.70 lower (35.63 lower to 9.77 lower)	⊕○○○ Very low
Heavy pro	enatal alco	ohol exposure (101-200g/w in a	at least one tr	imester) -	no studi	es	I		<u> </u>
Very heav	vy prenata	l alcohol expos	ure (201g+/w i	n at least one	trimester)					
1	serious ^a	not serious	serious ^c	serious ^{e,f}	none	24	277	-	MD 18.50 lower (31.44 lower to 5.56 lower)	⊕○○○ Very low
Any level	prenatal a	alcohol exposur	e – no studies	<u> </u>		l	I	I		

Confirme	d prenatal	alcohol expo	sure-Level Unqua	antifiable – no s	tudies					
DIAGNOS	SED STUDIE	S								
Birth Len	gth (cm)									
FASD										
1	serious ^a	not serious	not serious	very serious ^{d,e,f}	none	14	13	-	MD 5.30 lower (11.77 lower to 1.17 higher)	⊕○○○ Very low
FAS								•		
1	serious ^a	not serious	serious ^c	serious ^e	not	96	313	-	MD 3.80 lower (4.80 lower to 2.80 lower)	⊕○○○ Very low
pFAS or p	FAS/FAS									
3	serious ^a	serious ^b	serious ^c	serious ^e	none	160	379	-	MD 1.81 lower (3.24 lower to 0.38 lower)	⊕○○○ Very low
Other FA	SDs (ARND	, ND-AE, SE-A	E, Non-syndrom	al)						
3	serious ^a	serious ^b	serious ^c	serious ^e	none	163	379	-	MD 1.86 lower (3.29 lower to 0.43 lower)	⊕○○○ Very low
Birth Len	gth Percen	tiles			ļ					
FASD – no	o studies									
FAS										
1	serious ^a	not serious	serious ^c	not serious	none	96	313	-	MD 21.70 lower (29.35 lower to 14.05 lower)	⊕⊕⊖⊖ Low
pFAS or p	FAS/FAS			l	l			I		
1	seriousa	not serious	serious ^c	not serious	none	81	313	-	MD 12.70 lower (21.23 lower to 4.07 lower)	⊕⊕○○ Low
Other FA	SDs (ARND	, ND-AE, SE-A	E, Non-syndrom	al)	•			•		
1	seriousa	not serious	serious ^c	not serious	none	78	313	-	MD 11.20 lower (19.66 lower to 2.74 lower)	⊕⊕○○ Low

Notes: CI = confidence interval; MD = mean difference; OR = odds ratio

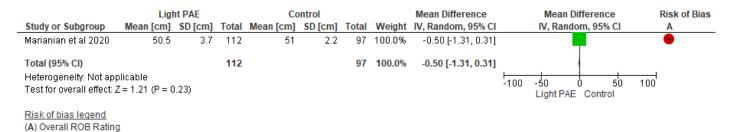
Explanations: a) >50% of studies were rated as moderate or high risk of bias; b) High heterogeneity ($I^2 > 50\%$ and significant chisquare for heterogeneity); c) >50% of studies had a sample not representative of the Australian populations not representative of Australia; d) 95% CI for overall estimate crossed the line of no effect; e) Wide 95% CIs for overall estimate; f) Optimal information size not met.

Meta-analyses for birth length

Exposure studies

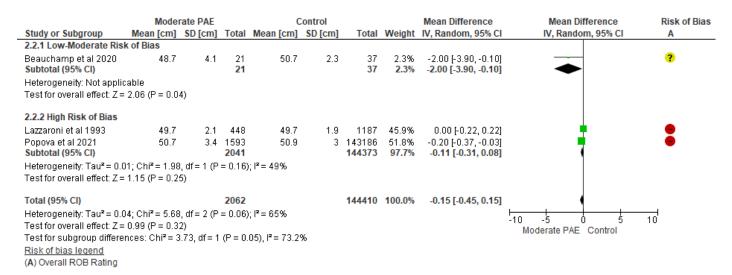
Birth Length (cms)

Light PAE and Birth Length (1 study)

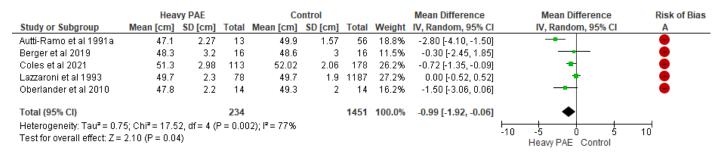


Note. Marianian et al 2020: mean and SD estimated from median and inter-quartile range.

Moderate PAE and Birth Length (3 studies)



Heavy PAE and Birth Length (5 studies)

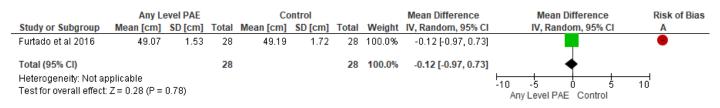


Very Heavy PAE and Birth Length (2 studies)

	Very H	eavy PAE		Co	ontrol			Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean [cm]	SD [cm]	Total	Mean [cm]	SD [cm]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
Coles et al 1991	46.38	3.65	25	49.42	2.23	21	52.4%	-3.04 [-4.76, -1.32]	-	•
Little et al 1990	46.8	5	32	49.07	2.3	80	47.6%	-2.27 [-4.07, -0.47]		•
Total (95% CI)			57			101	100.0%	-2.67 [-3.92, -1.43]	•	
Heterogeneity: Tau² = Test for overall effect:		•	(P = 0	.54); I² = 0%					-10 -5 0 5 Very Heavy PAE Control	10

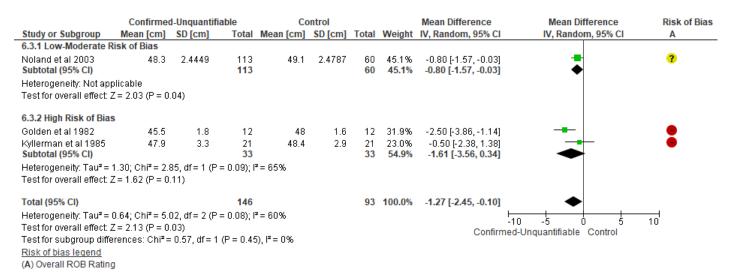
Risk of bias legend
(A) Overall ROB Rating

Any Level PAE and Birth Length (1 study)



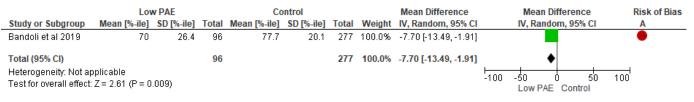
Risk of bias legend
(A) Overall ROB Rating

Confirmed PAE-Level Unknown and Birth Length (3 studies)

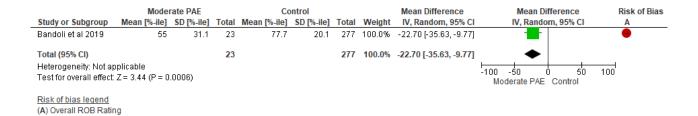


Birth Length Percentiles

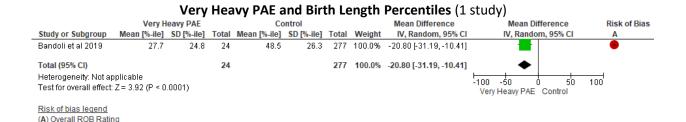
Light PAE and Birth Length Percentiles (1 study)



Moderate PAE and Birth Length Percentiles (1 study)



Heavy PAE and Birth Length Percentiles (0 studies)



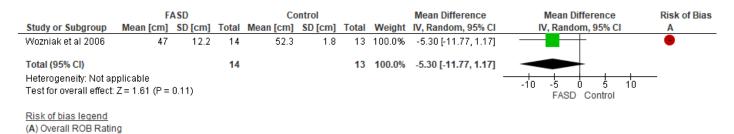
Any Level PAE and Birth Length Percentiles (0 studies)

Confirmed PAE-Unquantifiable and Birth Length Percentiles (0 studies)

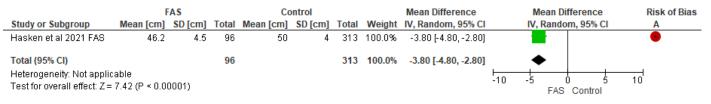
Diagnosed studies

Birth Length (in cms)

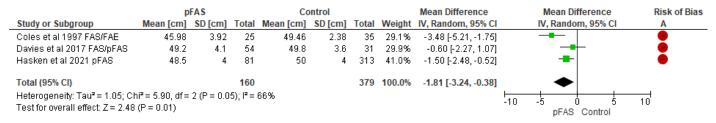
FASD and Birth Length (1 study)



FAS and Birth Length (1 study)

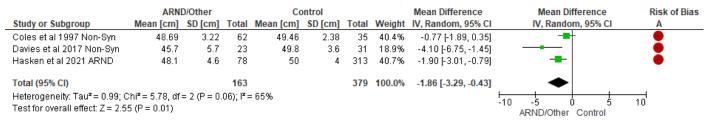


pFAS and Birth Length (3 studies)



Risk of bias legend
(A) Overall ROB Rating

Other FASD and Birth Length (3 studies)



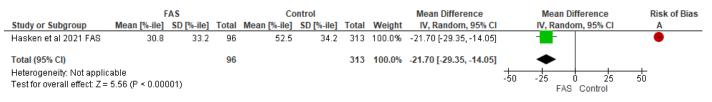
Risk of bias legend
(A) Overall ROB Rating

Birth Length Percentile

FASD and Birth Length Percentile (0 studies)

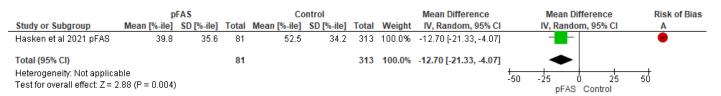
-

FAS and Birth Length Percentile (1 study)



Risk of bias legend
(A) Overall ROB Rating

pFAS and Birth Length Percentile (1 study)



Other FASDs and Birth Length Percentile (1 study)

	ARNI	D/Other		Co	ontrol			Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean [%-ile]	SD [%-ile]	Total	Mean [%-ile]	SD [%-ile]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
Hasken et al 2021 ARND	41.3	34.1	78	52.5	34.2	313	100.0%	-11.20 [-19.66, -2.74]		•
Total (95% CI)			78			313	100.0%	-11.20 [-19.66, -2.74]	•	
Heterogeneity: Not applicat Test for overall effect: Z = 2.									-50 -25 0 25 ARND/Other Control	50

Table 4. GRADE ratings for postnatal weight

		Certa	ainty assessme	ent		Nº of	patients	Ef	fect	Certainty
Nº of studies	Risk of bias	Inconsistency	Indirectness	Imprecision	Other	PAE	Control	Relative (95% CI)	Absolute (95% CI)	
EXPOSU	RE STUDIE	S								
Weight	<10 th Perce	entile								
Light pre	enatal alco	hol exposure (1	20g/w in at l	east one trime	e ster) - no	studie	S			
Modera	te prenata	ıl alcohol exposi	ure (101-200g/	w in at least o	one trime	ster)				
2	serious ^a	not serious	not serious	very serious ^{d,e,f}	none	79	319	OR 2.12 (0.91 to 4.89)	-	⊕○○○ Very Low
Heavy p	renatal ald	cohol exposure ((101-200g/w iı	n at least one	trimester	·)				
1	serious ^a	not serious	not serious	very serious ^{d,e,f}	none	20	66	OR 1.72 (0.29 to 10.18)	-	⊕○○○ Very Low
Very Hea	avy prenat	tal alcohol expo	sure (201g+/w	in at least on	e trimest	er)				•
3	serious	not serious	not serious	serious ^{e,f}	none	47	338	OR 13.60 (4.65 to 39.77)	-	⊕⊕○○ Low
Any leve	l prenatal	alcohol exposu	re (exposure d	lichotomised t	to yes/no) - no s	tudies			•
Confirm	ed prenata	al alcohol expos	ure-Level Unq	uantifiable						
3	serious ^a	not serious	not serious	serious ^{e,f}	none	357	347	OR 6.66 (4.24 to 10.48)	-	⊕⊕⊖⊖ Low
Weight ((≤12month	ns of age) (kg)								
Light pre	enatal alco	hol exposure (1	20g/w in at lo	east one trime	ester)					
1	serious ^a	not serious	serious ^c	serious ^f	none	112	97	-	MD 2.70 lower (3.00 lower to 2.40 lower)	⊕○○○ Very Low
Modera	te prenata	l alcohol exposi	ure (101-200g/	w in at least o	one trime	ster)				
1	serious ^a	not serious	not serious	serious ^d	none	137	304	-	MD 0.11 lower (0.31 lower to 0.09 higher)	⊕⊕⊜⊖ Low
Heavy p	renatal ald	cohol exposure (101-200g/w ii	n at least one	trimester	·)				
2	seriousª	not serious	not serious	not serious	none	51	348	-	MD 0.46 lower (0.80 lower to 0.12 lower)	⊕⊕⊕○ Moderate
Very Hea	l avy and Aı	 ny Level – no stu	<u>l</u> udies							l
Confirm	ed prenata	al alcohol expos	ure-Level Unq	uantifiable						

2	serious ^a	serious ^b	not serious	very serious ^{d,e,f}	none	40	57	-	MD 2.26 lower (6.47 lower to 1.95 higher)	⊕○○○ Very Low
Weight (>12 mont	hs of age) (kg)				,				
Light, M	oderate, H	leavy, Any Leve	l - no studies							
Very hea	avy prenat	al alcohol expo	sure (201g+/w	in at least on	e trimest	er)				
1	serious ^a	not serious	not serious	serious ^{d,f}	none	25	21	-	MD 1.40 lower (4.23 lower to 1.43 higher)	⊕⊕⊖⊖ Low
Confirm	ed prenata	al alcohol expos	ure-Level Unq	uantifiable						
3	serious ^a	serious ^b	not serious	serious ^{d,f}	none	74	109	-	MD 0.77 lower (1.65 lower to 0.11 higher)	⊕○○○ Very Low
Weight I	Percentiles									
Light, M	oderate, V	ery Heavy, Any	Level, Confirm	ned-Level Und	quantifiab	le – no	studies			
	1	ohol exposure (Ι		1	ı		T		T
1	serious ^a	not serious	serious ^c	serious ^{d,f}	none	30	44	-	MD 7.40 lower (20.28 lower to 5.48 higher)	⊕○○○ Very Low
DIAGNO	SED STUD	IES				<u> </u>				
Weight ·	<10 th Perce	entile								
FASD										
2	serious ^a	not serious	not serious	very serious ^{d,e,f}	none	62	126	OR 1.55 (0.44 to 5.43)	-	⊕○○○ Very Low
FAS										
2	serious ^a	not serious	not serious	serious ^{e,f}	none	120	231	OR 17.92 (3.29 to 97.45)	-	⊕⊕⊖⊖ Low
pFAS (pl	FAS or pFA	S/FAS or dysmo	I orphic) - no stu	dies						
Other (A	ARND, ND-	AE, SE-AE, Non-	syndromal)							
1	serious ^a	not serious	not serious	serious ^{e,f}	none	117	185	OR 4.40 (2.48 to 7.82)	-	⊕⊕⊖⊖ Low
Weight ((kg) (6-9 ye	ears)	l			<u> </u>		1		
FASD										
3	serious ^a	not serious	not serious	serious ^f	none	70	169	-	MD 1.60 lower (4.10 lower to 0.90 higher)	⊕⊕⊖⊖ Low

FAS										
7	serious ^a	serious ^b	serious ^c	not serious	none	383	956	-	MD 4.13 lower (5.41 lower to 2.86 lower)	⊕○○○ Very low
pFAS (p	FAS or pFA	S/FAS or dysmo	orphic)							
6	serious ^a	serious ^b	serious ^c	serious ^f	none	195	775	-	MD 4.12 lower (5.96 lower to 2.28 lower)	⊕○○○ Very low
Other (ARND, ND-	AE, SE-AE, Non-	syndromal)							
3	serious ^a	not serious	serious ^c	not serious	none	197	383	-	MD 1.59 lower (2.20 lower to 0.97 lower)	⊕⊕○○ Low
Weight	(kg) (9-18 y	rs)	•			•	•			
FASD										
2	serious ^a	not serious	not serious	serious ^{e,f}	none	37	43	-	MD 5.37 lower (10.47 lower to 0.28 lower)	⊕⊕○○ Low
FAS									•	
2	serious ^a	not serious	serious ^c	serious ^f	none	13	45	-	MD 9.32 lower (12.36 lower to 6.28 lower)	⊕○○○ Very low
pFAS (p	FAS or pFA	S/FAS or dysmo	orphic)				•		•	
2	serious ^a	not serious	not serious	serious ^f	none	64	69	-	MD 3.17 lower (6.33 lower to 0.02 lower)	⊕⊕⊖⊖ Low
Other (ARND, ND-	AE, SE-AE, Non-	syndromal)	•	•					
3	serious ^a	serious ^b	serious ^c	very serious ^{d,e,f}	none	124	98	-	MD 0.77 higher (5.40 lower to 6.93 higher)	⊕○○○ Very low
Weight	Percentiles	3		•					•	
FASD										
1	serious ^a	not serious	not serious	serious ^f	none	14	13	-	MD 15.70 lower (34.55 lower to 3.15 lower)	⊕⊕○○ Low
FAS	<u> </u>			•			<u></u>			
7	serious ^a	serious ^b	not serious	not serious	none	200	2475	-	MD 42.32 lower (52.19 lower to 36.46 lower)	⊕⊕⊖⊖ Low
pFAS (p	FAS or pFA	S/FAS or dysmo	orphic)				•			
9	serious ^a	not serious	not serious	not serious	none	264	2583	-	MD 18.27 lower (22.25 lower to 14.29 lower)	⊕⊕⊕○ Moderate

7	serious ^a	serious ^b	not serious	serious ^d	none	209	2372	-	MD 7.24 lower (17.09 lower to	⊕○○○ Very Low
									2.61 higher)	,

CI: confidence interval; MD: mean difference; OR: odds ratio

Explanations: a) >50% of studies were rated as moderate or high risk of bias; b) High heterogeneity (I² >50% and significant chi-square for heterogeneity); c) >50% of studies had a sample not representative of the Australian populations not representative of Australia; d) 95% CI for overall estimate crossed the line of no effect; e) Wide CI for overall estimate; f) Optimal information size criteria not met.

Meta-analyses for postnatal weight

Exposure studies

Weight <10th Percentile

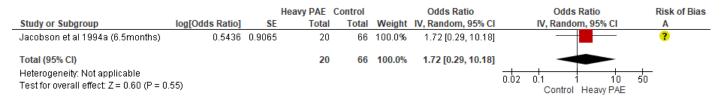
Light and PAE and Weight <10th percentile (0 studies)

Moderate PAE and Weight <10th percentile (2 studies)

Moderate PAE Control **Odds Ratio** Odds Ratio Risk of Bias log[Odds Ratio] Total Weight IV, Random, 95% CI IV, Random, 95% Cl Study or Subgroup Total Jacobson et al 1994a (6.5months) 0.7259 0.7413 34 66 33.3% 2.07 [0.48, 8.84] Bandoli et al 2020 (12months) 0.761 0.5237 45 253 66.7% 2.14 [0.77, 5.97] Total (95% CI) 79 319 100.0% 2.12 [0.91, 4.89] Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 0.00$, df = 1 (P = 0.97); $I^2 = 0\%$ 0.05 20 0.2 Test for overall effect: Z = 1.75 (P = 0.08) Control Group Moderate PAF Group

Risk of bias legend
(A) Overall ROB Rating

Heavy PAE and Weight <10th percentile (1 study)



Very Heavy PAE and Weight <10th percentile (3 studies)

			Very Heavy PAE	Control		Odds Ratio	Odds Ratio	Risk of Bias
Study or Subgroup	log[Odds Ratio]	SE	Total	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
7.5.1 Low-Moderate Risk of Bias								
Jacobson et al 1994a (6.5months)	4.3503	1.2108	6	66	16.9%	77.50 [7.22, 831.66]	-	 ?
Bandoli et al 2020 (12months) Subtotal (95% CI)	2.0571	0.5499	19 25			7.82 [2.66, 22.99] 19.11 [2.13, 170.98]		- ?
Heterogeneity: Tau ² = 1.75; Chi ² = 2.97	7, df = 1 (P = 0.08)	; I z = 669	6					
Test for overall effect: Z = 2.64 (P = 0.0	08)							
7.5.2 High Risk of Bias								
Little et al 1990 (4yrs)	2.5455	0.7586	22					•
Subtotal (95% CI)			22	19	33.9%	12.75 [2.88, 56.39]	_	
Heterogeneity: Not applicable								
Test for overall effect: Z = 3.36 (P = 0.0	008)							
Total (95% CI)			47	338	100.0%	13.60 [4.65, 39.77]	•	
Heterogeneity: Tau ² = 0.31; Chi ² = 2.98	3, df = 2 (P = 0.22)	; I ^z = 339	6				b 004 d d0	4000
Test for overall effect: Z = 4.77 (P < 0.0	0001)						0.001 0.1 1 10 Control Very Heavy	1000 DAE
Test for subgroup differences: Chi² = 0	0.09, df = 1 (P = 0.00)	76), $I^2 = I$	0%				Control Very Fleavy	FAL
Risk of bias legend								
(A) Overall ROB Rating								

Any Level PAE and Weight <10th percentile (0 studies)

-

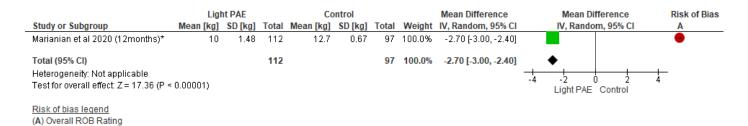
Confirmed PAE-Level Unquantifiable and Weight <10th percentile (3 studies)

Study or Subgroup	log[Odds Ratio]	SE	Confirmed-Unquantifiable Total		Weight	Odds Ratio IV, Random, 95% CI	IV	Odds Ratio Random, 95% CI	Risk of Bias
Study of Subgroup	log[odds Rado]	JL	Total	Total	vvcigiit	IV, Kandom, 55% Ci	ıv,	Kandoni, 95% Ci	A
Graham et al 2013 (8-16yrs)	1.6496	0.4756	110	102	23.6%	5.20 [2.05, 13.22]			•
Mattson et al 2010 (7-21yrs)	2.1972	0.8141	38	60	8.0%	9.00 [1.83, 44.38]			•
Mattson et al 2013 (8-17 yrs)	1.9466	0.2793	209	185	68.4%	7.00 [4.05, 12.11]		-	•
Total (95% CI)			357	347	100.0%	6.66 [4.24, 10.48]		•	
Heterogeneity: Tau ² = 0.00; Cl	. ,	= 0.80); I	² = 0%				0.002	0.1 1 10	500
Test for overall effect: Z = 8.21	(P < 0.00001)						C	Control Confirmed	I-Unguantifiable

Risk of bias legend
(A) Overall ROB Rating

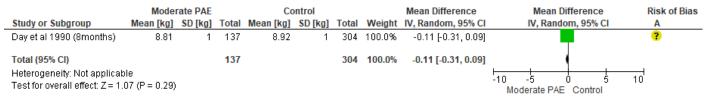
Weight (kg) (≤12 months)

Light PAE and Weight (kg) (≤12 months) (1 study)



Notes. *Mean and SD estimated from Median and IQR.

Moderate PAE and Weight (kg) (≤12 months) (1 study)



Heavy PAE and Weight (kg) (≤12months) (2 studies)

Hear	vy PAE		Co	ntrol			Mean Difference	Mean Difference	Risk of Bias
Mean [kg]	SD [kg]	Total	Mean [kg]	SD [kg]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
IS									
8.49	1	21 21	8.92	1	304 304	58.1% 58.1%	-0.43 [-0.87, 0.01] - 0.43 [-0.87, 0.01]	•	?
P = 0.06)									
9.1	1.2	30	9.6	1	44	41.9%	-0.50 [-1.02, 0.02]		•
		30			44	41.9%	-0.50 [-1.02, 0.02]	•	
P = 0.06)									
		51			348	100.0%	-0.46 [-0.80, -0.12]	•	
= 0.04, df=	1 (P = 0.8	(4); 2=	0%						
P = 0.008)	,							-2 -1 U 1	2
$hi^2 = 0.04$, d	f=1 (P=	0.84), I	l² = 0%					Heavy FAE Control	
•	,								
	Mean [kg] 8.49 P = 0.06) 9.1 P = 0.04, df = P = 0.008)	8.49 1 P = 0.06) 9.1 1.2 P = 0.06) = 0.04, df = 1 (P = 0.8) P = 0.008)	Mean [kg] SD [kg] Total 8.49 1 21 2 = 0.06) 9.1 1.2 30 30 2 = 0.06) 51 = 0.04, df = 1 (P = 0.84); ² = 0.008)	Mean [kg] SD [kg] Total Mean [kg] 8.49 1 21 8.92 P = 0.06) 9.1 1.2 30 9.6 P = 0.06) 51 = 0.04, df = 1 (P = 0.84); P = 0%	Mean [kg] SD [kg] Total Mean [kg] SD	Mean [kg] SD [kg] Total Mean [kg] SD [kg] Total SD [kg] Total SD [kg] SD [kg] Total SD [kg] SD [kg]	Mean [kg] SD [kg] Total Mean [kg] SD [kg] Total Weight 8.49 1 21 8.92 1 304 58.1% P = 0.06) 21 30 9.6 1 44 41.9% P = 0.06) 51 44 41.9% 44 41.9% P = 0.04, df = 1 (P = 0.84); P = 0% 348 100.0%	Mean [kg] SD [kg] Total Mean [kg] SD [kg] Total Weight IV, Random, 95% CI S	Mean [kg] SD [kg] Total Mean [kg] SD [kg] Total Weight IV, Random, 95% CI IV, Random, 95% CI S 8.49

Very Heavy PAE and Weight (kg) (≤12 months) (0 studies)

-

Any Level PAE and Weight (kg) (≤12 months) (0 studies)

Confirmed PAE-Level Unquantifiable (≤12 months) (2 studies)

	Confirme	d-Unquantif	fiable	Co	ontrol			Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean [kg]	SD [kg]	Total	Mean [kg]	SD [kg]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
Golden et al 1982 (12 months)	6.9	2	12	11.5	3.9	12	45.8%	-4.60 [-7.08, -2.12]		•
Donald et al 2016 (2-4wks)	3.8	0.68	28	4.09	0.66	45	54.2%	-0.29 [-0.61, 0.03]	•	•
Total (95% CI)			40			57	100.0%	-2.26 [-6.47, 1.95]		
Heterogeneity: Tau² = 8.47; Chi²: Test for overall effect: Z = 1.05 (P	•	(P = 0.000	7); I²= 91	%				Confirm	-10 -5 0 5 led-Unquantifiable Control	10

Risk of bias legend
(A) Overall ROB Rating

Weight (kg) (>12 months)

Light PAE and Weight (kg) (>12 months) (0 studies)

-

Moderate PAE and Weight (kg) (>12 months) (0 studies)

-

Heavy PAE and Weight (kg) (>12 months) (0 studies)

-

Very Heavy PAE and Weight (kg) (>12 months) (1 study)

	Very H	eavy PAE		Co	ntrol			Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean [kg]	SD [kg]	Total	Mean [kg]	SD [kg]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
Coles et al 1991 (5-6 yrs)	22.83	6.07	25	24.23	3.6	21	100.0%	-1.40 [-4.23, 1.43]	-	
Total (95% CI)			25			21	100.0%	-1.40 [-4.23, 1.43]	•	
Heterogeneity: Not applicat	ole								-20 -10 0 10	20
Test for overall effect: $Z = 0$.	.97 (P = 0.33)								Very Heavy PAE Control	20
Risk of bias legend										
(A) Overall ROB Rating										

Any Level PAE and Weight (kg) (>12 months) (0 studies)

Confirmed PAE-Level Unquantifiable (kg) (>12 months) (3 studies)

	Confirmed	d-Unquantifi	able	Co	ontrol			Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean [kg]	SD [kg]	Total	Mean [kg]	SD [kg]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
Chandran et al 2021 (9-10 yrs)	21.9	4.7	28	22.4	4.3	30	13.6%	-0.50 [-2.82, 1.82]	_	•
Roos et al 2021 (2-3 yrs)	13.28	1.77	25	13.9	1.73	58	80.3%	-0.62 [-1.44, 0.20]	-	•
Kyllerman et al 1985 (70-74months)	18.3	5.9	21	21.6	5.8	21	6.0%	-3.30 [-6.84, 0.24]		•
Total (95% CI)			74			109	100.0%	-0.77 [-1.65, 0.11]	•	
Heterogeneity: Tau² = 0.07; Chi² = 2.13		.34); I² = 6%							-10 -5 0 5	
Test for overall effect: Z = 1.71 (P = 0.0	9)							Confirm	ned-Unquantifiable Control	

Risk of bias legend (A) Overall ROB Rating

Weight Percentiles

Light PAE and Weight Percentiles (0 studies)

Moderate PAE and Weight Percentiles (0 studies)

Heavy PAE and Weight Percentiles (1 study)



Very Heavy PAE and Weight Percentiles (0 studies)

Any Level PAE and Weight Percentiles (0 studies)

Confirmed PAE-Level Unquantifiable and Weight Percentiles (0 studies)

Diagnosed studies

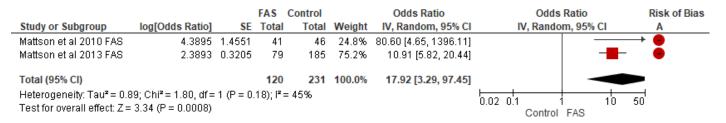
Weight <10th percentile

FASD and Weight <10th Percentile (2 studies)

			FASD	Control		Odds Ratio	Odds Ratio	Risk of Bias
Study or Subgroup	log[Odds Ratio]	SE	Total	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
de Water et al 2021	-0.3801	0.9402	41	43	37.9%	0.68 [0.11, 4.32]		•
Popova et al 2019	0.9379	0.6818	21	83	62.1%	2.55 [0.67, 9.72]	+	•
Total (95% CI)			62	126	100.0%	1.55 [0.44, 5.43]		
Heterogeneity: Tau² = Test for overall effect:			= 0.26)	; l² = 22%			0.02 0.1 1 10 Control FASD	50

Risk of bias legend
(A) Overall ROB Rating

FAS and Weight <10th Percentile (2 studies)



Risk of bias legend
(A) Overall ROB Rating

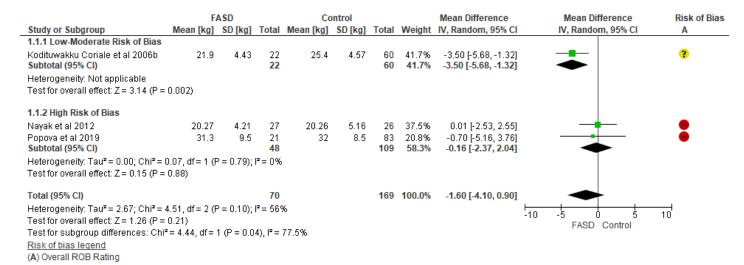
pFAS and Weight <10th Percentile (0 studies)

Other FASDs and Weight <10th Percentile (1 study)

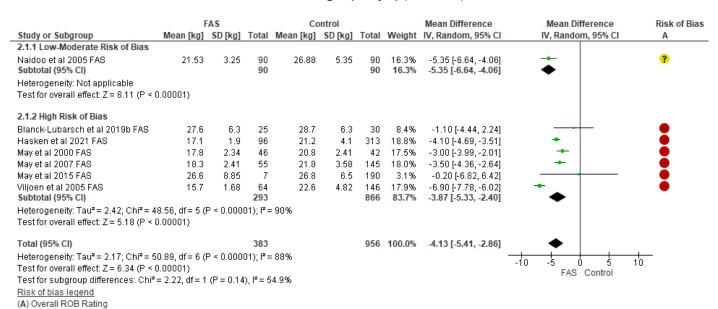
			ARND/Other	Control		Odds Ratio		Odds	Ratio	
Study or Subgroup	log[Odds Ratio]	SE	Total	Total	Weight	IV, Random, 95% CI		IV, Rando	m, 95% CI	
Mattson et al 2013 Non-syn	1.4821	0.2929	117	185	100.0%	4.40 [2.48, 7.82]				
Total (95% CI)			117	185	100.0%	4.40 [2.48, 7.82]			•	
Heterogeneity: Not applicable Test for overall effect: Z = 5.06							0.02 0.	1 Control	1 10 ARND/Other	50

Weight (in kgs) (6-9 yrs)

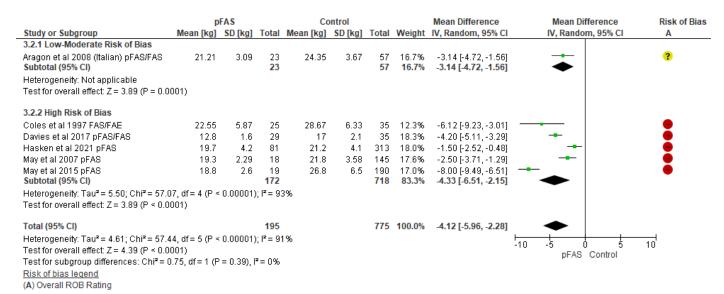
FASD and Weight (6-9yrs) (3 studies)



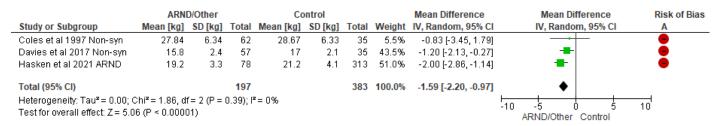
FAS and Weight (6-9 yrs) (7 studies)



pFAS and Weight (6-9 yrs) (6 studies)



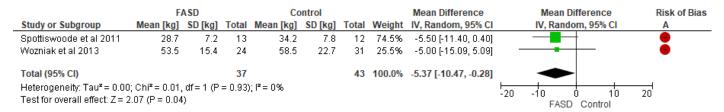
Other FASD and Weight (6-9 yrs) (3 studies)



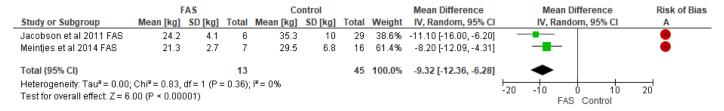
Risk of bias legend
(A) Overall ROB Rating

Weight (in kgs) (9-18 yrs)

FASD and Weight (9-18 yrs) (2 studies)

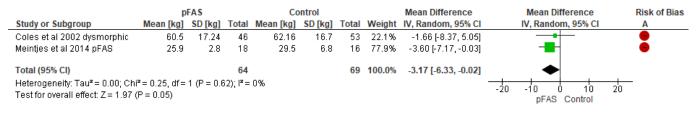


FAS and Weight (9-18 yrs) (2 studies)



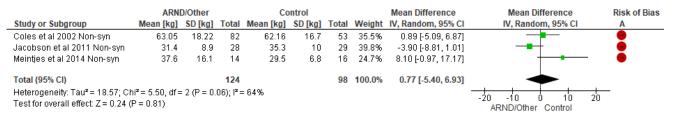
Risk of bias legend
(A) Overall ROB Rating

pFAS and Weight (9-18 yrs) (2 studies)



Risk of bias legend
(A) Overall ROB Rating

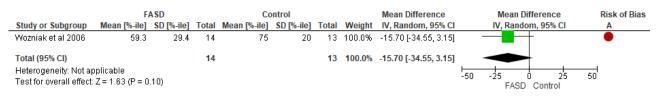
Other FASD and Weight (9-18 yrs) (3 studies)



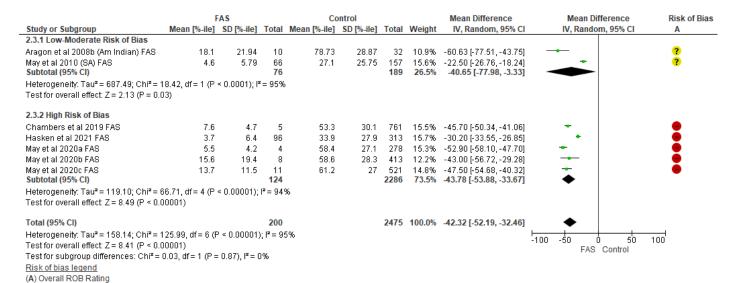
Risk of bias legend
(A) Overall ROB Rating

Weight Percentiles

FASD and Weight Percentiles (1 study)



FAS and Weight Percentiles (7 studies)



pFAS and Weight Percentiles (9 studies)

	pl	AS		Co	ntrol			Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup			Total	Mean [%-ile]		Total	Weight	IV. Random, 95% CI	IV, Random, 95% CI	A
3.4.1 Low-Moderate Risk of Bias								,		
Aragon et al 2008b (Am Indian) pFAS	48.71	26.64	14	78.73	28.87	32	5.0%	-30.02 [-47.19, -12.85]		?
May et al 2010 (Italian) FAS/pFAS Subtotal (95% CI)	40.3	30.52	39 53	58.7	30.14	179 211	12.1%	-18.40 [-28.95, -7.85]	_	? ?
	0.46-4.60-0.3	101. IZ - 000				211	17.170	-22.15 [-32.80, -11.50]	•	
Heterogeneity: Tau ² = 14.66; Chi ² = 1.2		(6); I*= 229	6							
Test for overall effect: Z = 4.08 (P < 0.00	001)									
3.4.2 High Risk of Bias										
Astley Olson et al 2009 pFAS/FAS	51.7	33.4	20	67.6	24.5	16	4.2%	-15.90 [-34.83, 3.03]		
Chambers et al 2019 pFAS	33.5	29.9	44	53.3	30.1	761	15.4%	-19.80 [-28.89, -10.71]		•
Hasken et al 2021 pFAS	20.4	21.7	81	33.9	27.9	313	30.5%	-13.50 [-19.15, -7.85]		•
Kable et al 2021 pFAS/FAS	36.6	23	5	50.4	26.3	70	3.4%	-13.80 [-34.88, 7.28]		•
May et al 2020a pFAS	40.4	26.2	22	58.4	27.1	278	10.6%	-18.00 [-29.40, -6.60]		•
May et al 2020b pFAS	46.3	29.7	16	58.6	28.3	413	6.6%	-12.30 [-27.11, 2.51]		•
May et al 2020c pFAS	32.4	25	23	61.2	27	521	12.2%	-28.80 [-39.28, -18.32]		•
Subtotal (95% CI)			211			2372	82.9%	-17.59 [-22.05, -13.12]	•	
Heterogeneity: Tau ² = 6.25; Chi ² = 7.23	df = 6 (P = 0.30))); I² = 17%								
Test for overall effect: Z = 7.71 (P < 0.00	0001)									
Total (95% CI)			264			2583	100.0%	-18.27 [-22.25, -14.29]	•	
Heterogeneity: Tau ² = 5.25; Chi ² = 9.31	df = 8 (P = 0.32)	?); I² = 14%								
Test for overall effect: Z = 8.99 (P < 0.00									-50 -25 0 25	50
Test for subgroup differences: Chi ² = 0		$(.44), \mathbf{l}^2 = 09$	%						pFAS Control	
Risk of bias legend										
THOR OF DIGO TO GOTTO										

(A) Overall ROB Rating

Other FASD and Weight Percentiles (7 studies)

	ARNI	D/Other		Co	ntrol			Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean [%-ile]	SD [%-ile]	Total	Mean [%-ile]	SD [%-ile]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
Astley Olson et al 2009 ND/AE	46.6	31.2	21	67.6	24.5	16	12.0%	-21.00 [-38.95, -3.05]		•
Chambers et al 2019 ARND	58.8	27.3	44	53.3	30.1	761	17.5%	5.50 [-2.85, 13.85]	+	•
Hasken et al 2021 ARND	16.2	21.4	78	33.9	27.9	313	18.8%	-17.70 [-23.37, -12.03]		•
Kable et al 2021 ARND	52	25.4	19	50.4	26.3	70	14.9%	1.60 [-11.38, 14.58]		•
May et al 2020a ARND	63.5	33.2	12	58.4	27.1	278	11.4%	5.10 [-13.95, 24.15]		•
May et al 2020b ARND	51.2	35.6	25	58.6	28.3	413	14.1%	-7.40 [-21.62, 6.82]		•
May et al 2020c ARND	42.3	31	10	61.2	27	521	11.3%	-18.90 [-38.25, 0.45]	-	•
Total (95% CI)			209			2372	100.0%	-7.24 [-17.09, 2.61]	•	
Heterogeneity: Tau ² = 126.28; C	hi² = 28.07, df =	6 (P < 0.00	01); l² =	: 79%					150 de de	
Test for overall effect: Z = 1.44 (F	P = 0.15)								-50 -25 0 25 ARND/Other Control	50

Table 5. GRADE ratings for postnatal height

		Certai	inty assessme	nt		Nº of	patients	E-	ffect	
Nº of studies	Risk of bias	Inconsistency	Indirectness	Imprecision	Other	PAE	Control	Relative (95% CI)	Absolute (95% CI)	Certainty
EXPOSURE	STUDIES									
Height <10	th Percenti	ile								
Light prena	atal alcoho	ol exposure (1-2	Og/w in at leas	st one trimest	er) - 0 st	udies				
Moderate	prenatal a	lcohol exposure	(101-200g/w	in at least on	e trimes	ter)				
2	seriousa	serious ^b	not serious	very serious ^{d,e,f}	none	78	319	OR 2.79 (0.54 to 14.38)	-	⊕○○○ Very low
Heavy prer	natal alcoh	ol exposure (10	1-200g/w in a	t least one tri	mester)					
1	seriousa	not serious	not serious	very serious ^{d,e,f}	none	20	66	OR 2.74 (0.56 to 13.41)	-	⊕○○○ Very low
Very Heavy	y prenatal	alcohol exposu	re (201g+/w in	at least one	trimeste	er)				
3	seriousa	not serious	not serious	serious ^{e,f}	none	47	338	OR 8.31 (3.68 to 18.76)	-	⊕⊕⊖⊖ Low
Any level p	renatal al	cohol exposure	(exposure dicl	notomised to	yes/no)	- no st	udies			
Confirmed	prenatal a	alcohol exposur	e-Level Unqua	ntifiable						
3	serious ^a	not serious	not serious	serious ^{e,f}	none	357	347	OR 4.75 (2.81 to 8.02)	-	⊕⊕○○ Low
Height (≤12	2 months	of age) (cm)								
Moderate,	Very Heav	vy, Any Level – r	no studies							
Light prena	atal alcoho	ol exposure (1-2	0g/w in at leas	st one trimest	er)					
1	serious ^a	not serious	serious ^c	serious ^f	none	112	97	-	MD 4.00 lower (4.60 lower to 3.40 lower)	⊕○○○ Very low
Heavy prer	natal alcoh	ol exposure (20	1 1g+/w in at le	ast one trime	ster)					•
1	seriousa	not serious	serious ^c	serious ^{d,f}	-	30	44	-	MD 0.70 lower (1.81 lower to 0.41 higher)	⊕○○○ Very low
Confirmed	prenatal a	alcohol exposure	e-Level Unqua	ntifiable	1					1
2	serious ^a	serious ^b	not serious	very serious ^{d,e,f}	none	40	57	-	MD 3.02 lower (10.55 lower to 4.51 higher)	⊕○○○ Very low
Height (>1	2 months	of age) (cm)								,
Light, Any	Level – no	studies								
Moderate	prenatal a	lcohol exposure	(101-200g/w	in at least on	e trimes	ter)				

1	serious ^a	not serious	not serious	serious ^f	-	26	49	-	MD 0.30 lower (0.54 lower to 0.06 lower)	⊕⊕○○ Low
Heavy pre	enatal alcoh	ol exposure (20	1g+/w in at le	ast one trime	ester)			•		
1	serious ^a	not serious	not serious	serious ^{d,f}	-	20	49	-	MD 0.20 higher (0.05 lower to 0.45 higher)	⊕⊕○○ Low
Very heav	y prenatal a	alcohol exposui	e (201g+/w in	at least one	trimeste	r)		•		
2	serious ^a	not serious	not serious	serious ^f	-	37	70	-	MD 3 .22 lower (3.57 lower to 2.86 lower)	⊕⊕○○ Low
Confirmed	d prenatal a	Icohol exposur	e-Level Unqua	ntifiable						
3	serious ^a	not serious	not serious	serious ^{d,f}	none	74	109	-	MD 0.32 lower (1.91 lower to 1.27 higher)	⊕⊕⊖⊖ Low
Height Pe	rcentiles									
Light, Mod	derate, Ver	y Heavy, Any Le	vel, Confirmed	d-Level Unqu	antifiabl	e – 0 st	udies			
Heavy pre	enatal alcoh	ol exposure (10	1-200g/w in a	t least one tr	imester)	ı				
1	serious ^a	not serious	serious ^c	serious ^{d,f}	none	30	44	-	MD 7.60 lower (20.29 lower to 5.09 higher)	⊕○○○ Very low
DIAGNOSI	ED STUDIES									
	Oth Percenti									
FASD										
2	serious ^a	not serious	not serious	serious ^{e,f}	none	62	126	OR 12.77 (2.89 to 56.47)	-	⊕⊕○○ Low
FAS					•					
2	serious ^a	not serious	not serious	serious ^{e,f}	none	120	231	OR 9.59 (5.48 to 16.79)	-	⊕⊕⊖⊖ Low
pFAS (pFA	AS or pFAS/I	AS or dysmorp	hic) - no studio	es	ı	<u> </u>		<u> </u>		
Other (AR	RND, ND-AE,	SE-AE, Non-syı	ndromal)							
1	serious ^a	not serious	not serious	serious ^{e,f}	none	117	185	OR 4.19 (2.38 to 7.40)	-	⊕⊕⊖⊖ Low
Height (cn	n) (6-9 year	s)			ļ.	ļ.				
FASD										
3	serious ^a	serious ^b	not serious	serious ^{d,f}	none	70	169	-	MD 1.93 lower (6.27 lower to 2.40 higher)	⊕○○○ Very low

FAS										
7	serious ^a	serious ^b	serious ^c	not serious	none	383	956	-	MD 5 .99 lower (7.79 lower to 4.18 lower)	⊕○○○ Very low
pFAS (or	pFAS/FAS oı	dysmorphic)								
6	serious ^a	serious ^b	serious ^c	serious ^e	none	195	775	-	MD 6.39 lower (9.53 lower to 3.26 lower)	⊕○○○ Very low
Other (AF	RND, ND-AE,	SE-AE, Non-sy	ndromal)							
3	serious ^a	not serious	serious ^c	not serious	none	197	383	-	MD 2.75 lower (3.99 lower to 1.5 lower)	⊕⊕⊖⊖ Low
Height (cı	m) (9-18 yrs		•	•						-
FASD										
3	serious ^a	not serious	not serious	very serious ^{d,e,f}	none	55	69	-	MD 4.68 lower (9.54 lower to 0.19 higher)	⊕○○○ Very low
FAS										
2	serious ^a	not serious	serious ^c	serious ^{e,f}	none	13	45	-	MD 9.70 lower (13.23 lower to 6.16 lower)	⊕○○○ Very low
pFAS (pF	AS or pFAS/I	AS or dysmorp	hic)	•						•
2	serious ^a	not serious	not serious	serious ^{d,f}	none	64	69	-	MD 0.37 lower (3.18 lower to 2.44 higher)	⊕⊕⊖⊖ Low
Other (AF	RND, ND-AE,	SE-AE, Non-sy	ndromal)	•	•					•
3	serious ^a	serious ^b	serious ^c	serious ^{d,f}	none	124	98	-	MD 2.00 higher (2.48 lower to 6.47 higher)	⊕○○○ Very low
Height Pe	ercentiles									
FASD										
1	serious ^a	not serious	not serious	serious ^{e,f}	none	14	13	-	MD 23.64 lower (47.72 lower to 0.44 lower)	⊕⊕⊖⊖ Low
FAS			•						1	•
7	serious ^a	serious ^b	not serious	not serious	none	200	2475	-	MD 41.16 lower (53.20 lower to 29.12 lower)	⊕⊕⊖⊖ Low
pFAS (pFA	AS or pFAS/I	AS or dysmorp	ohic)							
9	serious ^a	serious ^b	not serious	not serious	none	264	2583	-	MD 19.46 lower (25.60 lower to 13.31 lower)	⊕⊕⊖⊖ Low

7 serious ^a serious ^b not seriou	s serious ^d	none	209	2372	-	MD 5.18 lower (15.11 lower to 4.76 higher)	⊕○○○ Very Low
--	------------------------	------	-----	------	---	---	------------------

CI: confidence interval; MD: mean difference; OR: odds ratio

Explanations: Explanations: a) >50% of studies were rated as moderate or high risk of bias; b) High heterogeneity ($I^2 >50\%$ and significant chi-square for heterogeneity); c) >50% of studies had a sample not representative of the Australian populations not representative of Australia, d) 95% CI for overall estimate crossed the line of no effect; e) Wide CI for overall estimate; f) Optimal information size not met.

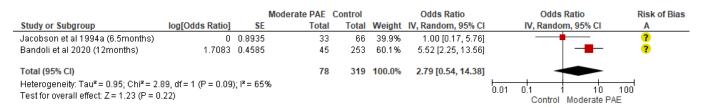
Meta-analyses for postnatal height

Exposure studies

Height <10th Percentile

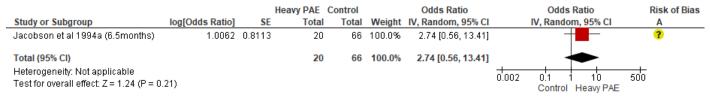
Light PAE and Height <10th Percentile (0 studies)

Moderate PAE and Height <10th Percentile (2 studies)



Risk of bias legend
(A) Overall ROB Rating

Heavy PAE and Height <10th Percentile (1 study)



Very Heavy PAE and Height <10th Percentile (3 studies)

				Very Heavy PAE	Control		Odds Ratio	Odds R	atio	Risk of Bias
Study or Subgroup	log[Odd	Is Ratio]	SE	Total	Total	Weight	IV, Random, 95% CI	IV, Random	, 95% CI	Α
7.6.1 Low-Moderate Ri	sk of Bias									
Jacobson et al 1994a (6	3.5months)	2.7408	0.9658	6	66	18.5%	15.50 [2.33, 102.90]			► <mark>?</mark>
Bandoli et al 2020 (12m	nonths)	1.6537	0.5782	19	253	51.6%	5.23 [1.68, 16.23]		_	?
Subtotal (95% CI)				25	319	70.1%	6.96 [2.63, 18.41]		•	
Heterogeneity: Tau² = 0	.00; Chi² = 0.93, df = 1	(P = 0.33)	$ I^2 = 0\% $							
Test for overall effect: Z	= 3.91 (P < 0.0001)									
7.6.2 High Risk of Bias										
Little et al 1990 (4yrs)		2.5337	0.7596	22	19	29.9%	12.60 [2.84, 55.84]			•
Subtotal (95% CI)				22	19	29.9%	12.60 [2.84, 55.84]		$\overline{}$	
Heterogeneity: Not appl	icable									
Test for overall effect: Z	= 3.34 (P = 0.0009)									
Total (95% CI)				47	338	100.0%	8.31 [3.68, 18.76]		•	
Heterogeneity: Tau ² = 0	.00; Chi ² = 1.36, df = 2	(P = 0.51)	: I ² = 0%							j
Test for overall effect: Z		,						0.01 0.1 1	10 100	J
Test for subgroup differ	ences: Chi² = 0.43. df=	1 (P = 0.	51), I²=	0%				Control	ery Heavy PAE	
Risk of bias legend	,									
(A) Overall ROB Rating										
, ,										

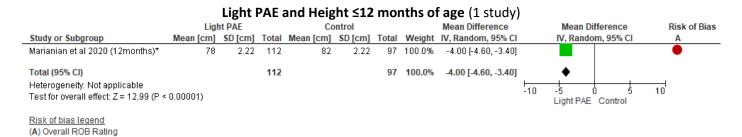
Any Level PAE and Height <10th Percentile (0 studies)

Confirmed PAE-Level Unquantifiable and Height <10th Percentile (3 studies)

Study or Subgroup	log[Odds Ratio]	SE	Confirmed-Unquantifiable Total		Weight	Odds Ratio IV, Random, 95% CI	Odds Ratio IV, Random, 95% CI	Risk of Bias A
Graham et al 2013 (8-16yrs)	1.483	0.426	110	102	30.2%	4.41 [1.91, 10.15]		
Mattson et al 2010 (7-21yrs)	0.7239	0.6451	38	60	15.2%	2.06 [0.58, 7.30]	+•	•
Mattson et al 2013 (8-17 yrs)	1.8309	0.2749	209	185	54.6%	6.24 [3.64, 10.69]	-	•
Total (95% CI)			357	347	100.0%	4.75 [2.81, 8.02]	•	
Heterogeneity: Tau² = 0.06; Ch Test for overall effect: Z = 5.82		= 0.27); l	²= 24%				0.01 0.1 1 10 1 Control Confirmed-Und	O0 quantifiable

Risk of bias legend
(A) Overall ROB Rating

Height (≤12 months of age)



Notes. *Mean and SD estimated from Median and IQR.

Moderate PAE and Height ≤12 months of age (0 studies)



Very Heavy PAE and Height ≤12 months of age (0 studies)

,

Any Level PAE and Height ≤12 months of age (0 studies)

-

Confirmed PAE-Level Unquantifiable and Height ≤12 months of age (2 studies)

	Confirme	d-Unquantifia	able	Co	ontrol			Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean [cm]	SD [cm]	Total	Mean [cm]	SD [cm]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
Golden et al 1982 (12 months)	67	8.3	12	74.4	6.3	12	43.5%	-7.40 [-13.30, -1.50]		
Donald et al 2016 (2-4wks)	51.27	5.03	28	50.92	3.97	45	56.5%	0.35 [-1.84, 2.54]	•	•
Total (95% CI)			40			57	100.0%	-3.02 [-10.55, 4.51]	•	
Heterogeneity: Tau² = 24.88; Chi² Test for overall effect: Z = 0.79 (P		(P = 0.02); P	²= 83%					Con	-50 -25 0 25 firmed-Unquantifiable Control Group	50

Risk of bias legend
(A) Overall ROB Rating

(A) Overall ROB Rating

Height (cms) (>12 months of age)

Light PAE and Height >12months of age (0 studies)

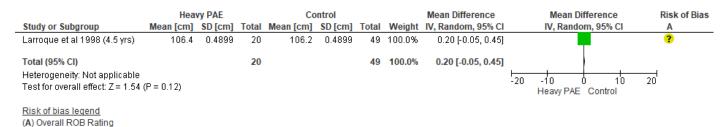
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Moderate PAE and Height >12months of age (1 study)

	Mode	rate PAE		Co	ntrol			Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean [cm]	SD [cm]	Total	Mean [cm]	SD [cm]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
Larroque et al 1998 (4.5 yrs)	105.9	0.4946	26	106.2	0.4946	49	100.0%	-0.30 [-0.54, -0.06]		?
Total (95% CI)			26			49	100.0%	-0.30 [-0.54, -0.06]	•	
Heterogeneity: Not applicable									-20 -10 0 10	20
Test for overall effect: Z = 2.50	(P = 0.01)								Moderate PAE Control	20
Risk of bias legend										

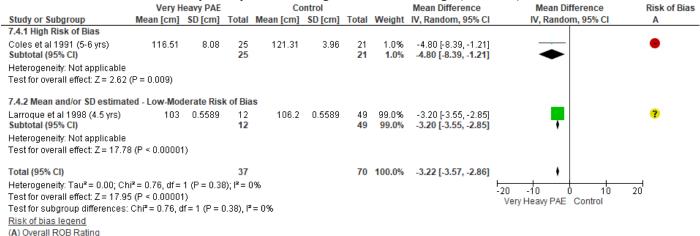
Note. Larroque et al. 1998 – mean and standard deviation estimates from adjusted mean difference.

Heavy PAE and Height >12months of age (1 study)



Note. Larroque et al. 1998 – mean and standard deviation estimates from adjusted mean difference.

Very Heavy PAE and Height >12months of age (2 studies)



Note. Larroque et al. 1998 – mean and standard deviation estimates from adjusted mean difference.

Any Level PAE and Height >12months of age (0 studies)

-

Confirmed PAE-Level Unquantifiable and Height >12months of age (3 studies)

	Confirme	d-Unquantifi	able	Co	ontrol			Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean [cm]	SD [cm]	Total	Mean [cm]	SD [cm]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
Chandran et al 2021 (9-10 yrs)	122.8	5.4	28	123.2	6.9	30	23.1%	-0.40 [-3.58, 2.78]	+	
Kyllerman et al 1985 (70-74months)	106.1	26.9	21	116	14.4	21	1.5%	-9.90 [-22.95, 3.15]		
Roos et al 2021 (2-3 yrs)	91.39	3.23	25	91.5	3.74	58	75.4%	-0.11 [-1.70, 1.48]	•	•
Total (95% CI)			74			109	100.0%	-0.32 [-1.91, 1.27]	•	
Heterogeneity: Tau ² = 0.21; Chi ² = 2.14 Test for overall effect: $Z = 0.40$ (P = 0.6		.34); I² = 6%						Cor	-50 -25 0 25 nfirmed-Unquantifiable Control Group	50

Risk of bias legend
(A) Overall ROB Rating

Height Percentiles

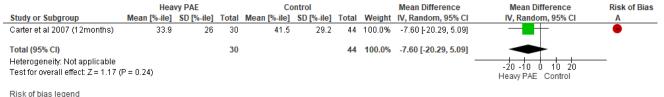
Light PAE and Height Percentiles (0 studies)

-

Moderate PAE and Height Percentiles (0 studies)

-

Heavy PAE and Height Percentiles (1 study)



(A) Overall ROB Rating

Very Heavy PAE and Height Percentiles (0 studies)

-

Any Level PAE and Height Percentiles (0 studies)

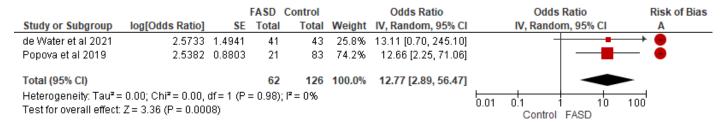
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Confirmed PAE-Level Unquantifiable and Height Percentiles (0 studies)

Diagnosed studies

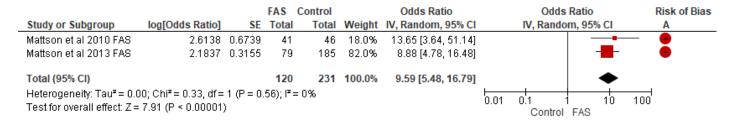
Height <10th percentile

FASD and Height <10th percentile (2 studies)



Risk of bias legend
(A) Overall ROB Rating

FAS and Height <10th Percentile (2 studies)



Risk of bias legend
(A) Overall ROB Rating

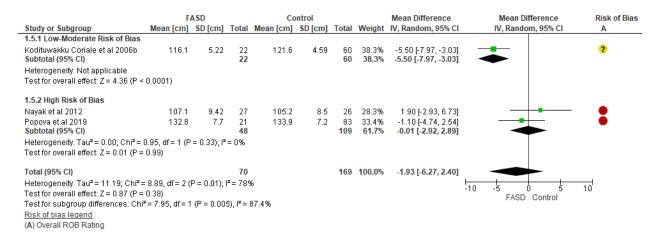
pFAS and Height <10th Percentile (0 studies)

Other FASDs and Height <10th Percentile (1 study)

0.1			ARND/Other			Odds Ratio	Odds Ratio Risk of Bias
Study or Subgroup	log[Odds Ratio]	SE	Total	Total	weight	IV, Random, 95% CI	IV, Random, 95% CI A
Mattson et al 2013 Non-syn	1.4333	0.2898	117	185	100.0%	4.19 [2.38, 7.40]	•
Total (95% CI)			117	185	100.0%	4.19 [2.38, 7.40]	•
Heterogeneity: Not applicable Test for overall effect: Z = 4.99							0.01 0.1 1 10 100 Control ARND/Other

Height (in cms) (6-9yrs)

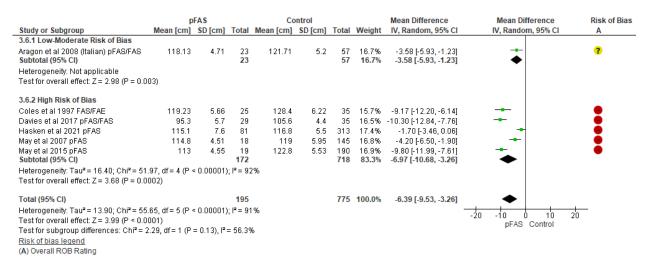
FASD and Height (6-9 yrs) (3 studies)



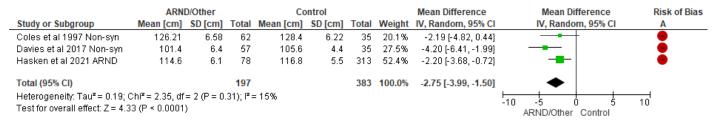
FAS and Height (6-9 yrs) (7 studies) FAS Control Mean Difference Mean Difference Risk of Bias Study or Subgroup Total Mean [cm] SD [cm] Total Weight IV, Random, 95% CI IV, Random, 95% CI Mean [cm] SD [cm] Α 2.5.1 Low-Moderate Risk of Bias Naidoo et al 2005 FAS Subtotal (95% CI) ? -5.68 [-6.95, -4.41] -5.68 [-6.95, -4.41] 121.11 5.62 qη 126.79 2.53 qn 18.3% 90 18.3% 90 Heterogeneity: Not applicable Test for overall effect: Z = 8.74 (P < 0.00001) 2.5.2 High Risk of Bias Blanck-Lubarsch et al 2019b FAS 130.2 9.3 25 132 12.7 30 6.5% -1.80 [-7.63, 4.03] Hasken et al 2021 FAS 111.1 4.6 96 116.8 5.5 313 18.7% -5.70 [-6.80, -4.60] May et al 2000 FAS 109.5 6.06 46 115.7 6.68 42 13.9% -6.20 [-8.87, -3.53] May et al 2007 FAS 114.3 4.92 55 119 5.95 145 17.3% -4.70 [-6.32, -3.08] May et al 2015 FAS 119.5 6.51 7 122.8 5.53 190 8.1% -3.30 [-8.19, 1.59] Viljoen et al 2005 FAS 17.2% -10.60 [-12.24, -8.96] 108.6 64 119.2 146 Subtotal (95% CI) 293 866 81.7% -5.94 [-8.27, -3.61] Heterogeneity: $Tau^2 = 6.28$; $Chi^2 = 34.78$, df = 5 (P < 0.00001); $I^2 = 86\%$ Test for overall effect: Z = 4.99 (P < 0.00001)956 100.0% -5.99 [-7.79, -4.18] Heterogeneity: $Tau^2 = 4.22$; $Chi^2 = 35.74$, df = 6 (P < 0.00001); $I^2 = 83\%$ -20 -10 1'n 2'n. Test for overall effect: Z = 6.50 (P < 0.00001) FAS Control Test for subgroup differences: Chi² = 0.04, df = 1 (P = 0.85), I² = 0% Risk of bias legend

pFAS and Height (6-9 yrs) (6 studies)

(A) Overall ROB Rating



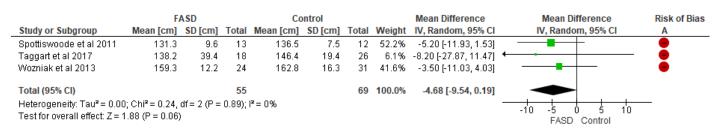
Other FASD and Height (6-9 yrs) (3 studies)



Risk of bias legend
(A) Overall ROB Rating

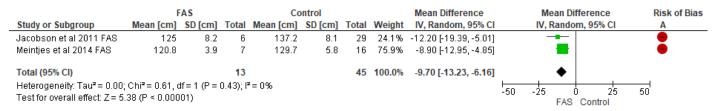
Height (in cms) (9-18 yrs)

FASD and Height (9-18 yrs) (3 studies)



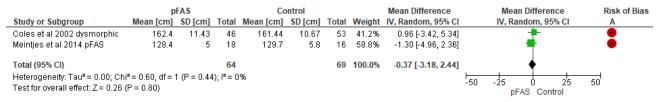
Risk of bias legend
(A) Overall ROB Rating

FAS and Height (9-18 yrs) (2 studies)



Risk of bias legend
(A) Overall ROB Rating

pFAS and Height (9-18 yrs) (2 studies)



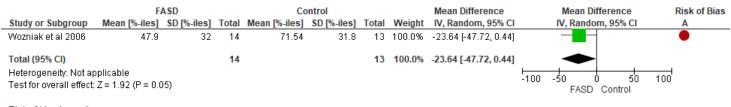
Other FASD and Height (9-18 yrs) (3 studies)

	ARNI	D/Other		Co	ntrol			Mean Difference	Mean Difference	Risk of Bias
Study or Subgroup	Mean [cm]	SD [cm]	Total	Mean [cm]	SD [cm]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
Coles et al 2002 Non-syn	163.8	9.9	82	161.44	10.67	53	39.1%	2.36 [-1.22, 5.94]	+-	•
Jacobson et al 2011 Non-syn	135	9.5	28	137.2	8.1	29	33.7%	-2.20 [-6.79, 2.39]		
Meintjes et al 2014 Non-syn	136.4	10	14	129.7	5.8	16	27.1%	6.70 [0.74, 12.66]	-	•
Total (95% CI)			124			98	100.0%	2.00 [-2.48, 6.47]	•	
Heterogeneity: Tau² = 9.97; Chi Test for overall effect: Z = 0.88 ((P = 0.06)); I² = 6	4%					-20 -10 0 10 2 ARND/Other Control	T _o

Risk of bias legend
(A) Overall ROB Rating

Height Percentiles

FASD and Height Percentiles (1 study)



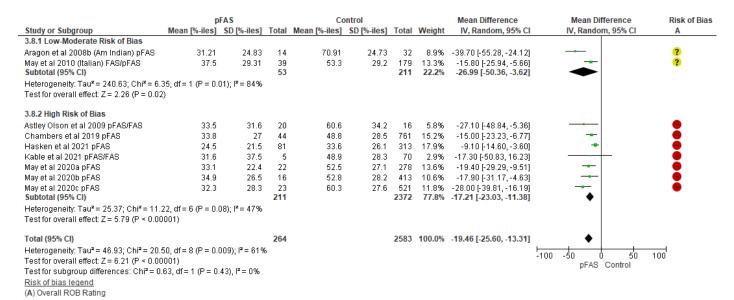
Risk of bias legend
(A) Overall ROB Rating

(A) Overall ROB Rating

FAS and Height Percentiles (7 studies)

Mean [%-iles]	CD I% iloe1			ntrol			Mean Difference	Mean Difference	Risk of Bia
	an [/o-lica]	Total	Mean [%-iles]	SD [%-iles]	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	Α
6.6	4.35	10	70.91	24.73	32	14.1%	-64.31 [-73.29, -55.33]	-	?
5.6	6.65		25.9	24.2	157	15.1%	-20.30 [-24.41, -16.19]		?
		76			189	29.2%	-42.12 [-85.24, 1.01]		
'6.24, df = 1 (P <	0.00001); I2:	= 99%							
16)									
13	14.9	5	48.8	28.5	761	12.9%	-35.80 [-49.02, -22.58]		•
5.4	7.5	96	33.6	26.1	313	15.2%	-28.20 [-31.46, -24.94]	•	•
10	12.3	4	52.5	27.1	278	13.2%	-42.50 [-54.97, -30.03]		•
8	9.8	8	52.8	28.2	413	14.5%	-44.80 [-52.12, -37.48]		•
7	6.3	11	60.3	27.6				+_	•
		124			2286	70.8%	-40.99 [-53.80, -28.18]	•	
34.86, df= 4 (P <	0.00001); I2:	= 95%							
00001)									
		200			2475	100.0%	-41.16 [-53.20, -29.12]	•	
81.08, df = 6 (P	< 0.00001); P	= 97%						100 50 50	400
00001)									100
0.00, df = 1 (P = I	0.96), $I^2 = 0\%$)						1 AG COIIIIOI	
	5.6 6.24, df = 1 (P < 66) 13 5.4 10 8 7 44.86, df = 4 (P < 60001)	5.6 6.65 (6.24, df = 1 (P < 0.00001); P (6) 13 14.9 5.4 7.5 10 12.3 8 9.8 7 6.3 (4.86, df = 4 (P < 0.00001); P (0001) 81.08, df = 6 (P < 0.00001); I	5.6 6.65 66 76 6.24, df = 1 (P < 0.00001); F = 99% 6) 13 14.9 5 5.4 7.5 96 10 12.3 4 8 9.8 8 7 6.3 11 124 4.86, df = 4 (P < 0.00001); F = 95% 10001) 200 81.08, df = 6 (P < 0.00001); F = 97%	5.6 6.65 66 76 6.24, df = 1 (P < 0.00001); P = 99% 6.0 48.8 5.4 7.5 96 33.6 10 12.3 4 52.5 8 9.8 8 52.8 7 6.3 11 60.3 124 6.4.86, df = 4 (P < 0.00001); P = 95% 6.5.0 5.6 5.6 5.6 6.6 76 6.6.25 6.6 76 6.7.5 96 6	5.6 6.65 66 76 6.24, df = 1 (P < 0.00001); l ² = 99% 6.0 13 14.9 5 48.8 28.5 5.4 7.5 96 33.6 26.1 10 12.3 4 52.5 27.1 8 9.8 8 52.8 28.2 7 6.3 11 60.3 27.6 14.86, df = 4 (P < 0.00001); l ² = 95% 10001) 200 81.08, df = 6 (P < 0.00001); l ² = 97% 10001)	5.6 6.65 66 76 25.9 24.2 157 189 (6.24, df = 1 (P < 0.00001); F = 99% (6) 33.6 26.1 313 14.9 5 48.8 28.5 761 5.4 7.5 96 33.6 26.1 313 10 12.3 4 52.5 27.1 278 8 9.8 8 52.8 28.2 413 7 6.3 11 60.3 27.6 521 124 2286 (4.86, df = 4 (P < 0.00001); F = 95% (00001)	5.6 6.65 66 76 25.9 24.2 157 15.1% 189 29.2% (6.24, df = 1 (P < 0.00001); F = 99% (6) 33.6 26.1 313 15.2% 10 12.3 4 52.5 27.1 278 13.2% 8 9.8 8 52.8 28.2 413 14.5% 7 6.3 11 60.3 27.6 521 15.0% 124 2286 70.8% (4.86, df = 4 (P < 0.00001); F = 95% (0001)	5.6 6.65 66 25.9 24.2 157 15.1% -20.30 [-24.41, -16.19] 76 189 29.2% 42.12 [-85.24, 1.01] 6.24, df = 1 (P < 0.00001); P = 99% (6) 48.8 28.5 761 12.9% -35.80 [-49.02, -22.58] 5.4 7.5 96 33.6 26.1 313 15.2% -28.20 [-31.46, -24.94] 10 12.3 4 52.5 27.1 278 13.2% -42.50 [-54.97, -30.03] 8 9.8 8 52.8 28.2 413 14.5% -44.80 [-52.12, -37.48] 7 6.3 11 60.3 27.6 521 15.0% -53.30 [-57.71, -48.89] 24.86, df = 4 (P < 0.00001); P = 95% (60001)	5.6 6.65 66 25.9 24.2 157 15.1% -20.30 [-24.41, -16.19]

pFAS and Height Percentiles (9 studies)



Other FASD and Height Percentiles (7 studies)

