Supplementary material

Online table 1. Search strategy for review of research on reproductive effects of caffeine.

MEDLINE and EMBASE

1. exp cohort studies/
2. cohort$.tw.
3. exp case-control studies/
4. case-control$.tw.
5. epidemiologic methods/
6. or/1-5
7. (animals not (humans and animals)).sh.
8. 6 not 7
9. exp caffeine/
10. caffein$.ab,ti.
11. 1,3,7-trimethylxanthine.ab,ti.
12. 137-trimethylxanthine.ab,ti.
13. paraxanthine.ab,ti.
14. coffee.ab,ti.
15. or/9-14
16. ((f?etal or f?etus or intrauterine) adj2 (growth or restriction or retardation)).tw.
17. FGR.ab,ti.
18. IUGR.ab,ti.
19. (small adj2 gestation$).tw.
20. SGA.ab,ti.
21. exp birth weight/
22. birth weight.tw.
23. exp miscarriage/
24. miscarriage.tw.
25. exp spontaneous abortion/
26. spontaneous abortion.tw.
27. exp preterm birth/
28. ((preterm or pre-term) adj2 (birth or delivery)).tw.
29. or/16-28
30. adverse effect$.tw.
31. pregnancy.tw.
32. and/30-31
33. 29 or 32
34. 6 and 15 and 33

Online table 2a. Characteristics and risk of bias table for publications included in meta-analysis of caffeine and miscarriage.

Authors	Location	Design	Source of caffeine	Adjustments						Risk of bias [a]		
				age	parity	previous history	smoking	alcohol	socio-economic	selection	comparability	exposure /outcome
Srisuphan et al. 1986[1]	US	cohort	all							****		***
Hansteen et al. 1990[2]	Norway	case-control	coffee	✓						**	*	*
Wilcox et al. 1990[3]	US	cohort	all							****		***
Fenster et al. 1991[4]	US	case-control	all	✓		✓	✓	✓	✓	***	**	*
Kline et al. 1991[5]	US	case-control	all	✓					✓	***	*	*
Armstrong et al. 1992[6]	US	case-control	coffee	✓	✓	✓			✓	***	*	*
Infante-Rivard et al. 1993[7]	US	case-control	all	✓		✓	✓	✓	✓	***	**	*
Mills et al. 1993[8]	US	cohort	all							***		***
Dominguez-Rojas et al. 1994[9]	Spain	cohort	coffee	✓		✓				**	*	***
Dlugosz et al. 1996[10]	US	cohort	all	✓	✓	✓	✓	✓	✓	****	**	***
Agnesi et al. 1997[11]	Italy	case-control	coffee	✓		✓				**	*	*
Fenster et al. 1997[12]	US	cohort	all	✓	✓	✓	✓	✓	✓	****	**	***
Parazzini et al. 1998[13]	Italy	case-control	coffee	✓	✓	✓	✓	✓	✓	**	**	
Cnattingius et al. 2000[14]	Sweden	case-control	all	✓	✓	✓	✓	✓	✓	***	**	*
Wen et al. 2001[15]	US	cohort	all							***		**
Giannelli et al. 2003[16]	UK	case-control	all	✓	✓					***	*	*
Rasch et al. 2003[17]	Denmark	case-control	all	✓	✓		✓	✓	✓	***	**	**
Tolstrup et al. 2003[18]	Denmark	cohort	all	✓	✓	✓	✓	✓	✓	****	**	***
Wisborg et al. 2003[19]	Denmark	cohort	coffee							***		***
Khoury et al. 2004[20]	US	cohort	all	✓		✓	✓			***	**	***
Bech et al. 2005[21]	Denmark	cohort	coffee	✓	✓		✓	✓	✓	***	**	***
George et al. 2006[22]	Sweden	case-control	all	✓	✓	✓	✓	✓		***	**	*
Maconochie et al. 2007[23]	UK	case-control	all	✓		✓				***	*	*
Savitz et al. 2008[24]	US	cohort	all	✓	✓	✓		✓	✓	***	*	**
Weng et al. 2008[25]	US	cohort	all	✓		✓	✓	✓	✓	****	**	***
Greenwood et al. 2010[26]	UK	cohort	all	✓	✓		✓	✓		****	**	***

[a] Risk of bias based on Newcastle-Ottawa quality assessment scale for case-control or cohort studies, as appropriate.

Online table 2b. Characteristics and risk of bias table for publications included in meta-analysis of caffeine and stillbirth.

Authors	Location	Design	Source of caffeine	Adjustments						Risk of bias [a]		
				age	parity	previous history	smoking	alcohol	socio-economic	selection	comparability	exposure /outcome
Linn et al. 1982[27]	US	case-control	coffee							****		*
Wisborg et al. 2003[28]	Denmark	cohort	coffee	✓	✓		✓	✓	✓	***	**	***
Bech et al. 2005[21]	Denmark	cohort	coffee	✓	✓		✓	✓	✓	***	**	***
Matijasevich et al. 2006[29]	Uruguay	case-control	all			✓	✓		✓	****	*	*
Greenwood et al. 2010[26]	UK	cohort	all	✓	✓		✓	✓		****	**	***

[a] Risk of bias based on Newcastle-Ottawa quality assessment scale for case-control or cohort studies, as appropriate.

Online table 2c. Characteristics and risk of bias table for publications included in meta-analysis of caffeine and preterm delivery.

Authors	Location	Design	Source of caffeine	Adjustments						Risk of bias [a]		
				age	parity	previous history	smoking	alcohol	socio-economic	selection	comparability	exposure /outcome
Berkowitz et al. 1982[30]	US	case-control	coffee							***		*
Olsen et al. 1991[31]	Denmark	cohort	coffee		✓		✓	✓	✓	***	*	***
McDonald et al. 1992[32]	US	cohort	coffee	✓		✓	✓	✓	✓	**	**	***
Williams et al. 1992[33]	US	case-control	coffee	✓	✓	✓	✓	✓	✓	****	**	*
Fortier et al. 1993[34]	US	case-control	all		✓	✓	✓		✓	***	*	*
Pastore et al. 1995[35]	US	case-control	all		✓		✓	✓		***	*	**
Peacock et al. 1995[36]	UK	cohort	all							****		***
Bicalho et al. 2002[37]	US	case-control	all	✓	✓	✓	✓		✓	**	**	*
Bracken et al. 2003[38]	US	cohort	all	✓	✓		✓		✓	****	**	***
Khoury et al. 2004[20]	US	cohort	all	✓		✓	✓			***	**	***
de Souza et al. 2005[39]	US	case-control	all							***		*
Chiaffarino et al. 2006[40]	Italy	case-control	all	✓	✓	✓	✓		✓	****	**	*
Boylan et al. 2008[41]	UK	cohort	all	✓		✓	✓	✓		****	**	***
Bakker et al. 2010[42]	Netherlands	cohort	all	✓	✓		✓	✓	✓	****	**	***
Sengpiel et al. 2013[43]	Norway	cohort	all	✓	✓	✓	✓	✓	✓	***	**	***

[a] Risk of bias based on Newcastle-Ottawa quality assessment scale for case-control or cohort studies, as appropriate.

Online table 2d. Characteristics and risk of bias table for publications included in meta-analysis of caffeine and low birth weight.

Authors	Location	Design	Source of caffeine	Adjustments						Risk of bias [a]		
				age	parity	previous history	smoking	alcohol	socio-economic	selection	comparability	exposure /outcome
Linn et al. 1982[27]	US	case-control	coffee							****		*
Martin et al. 1987[44]	US	cohort	all		✓		✓			****	*	***
Caan et al. 1989[45]	US	case-control	all		✓		✓	✓		**	*	*
Fenster et al. 1991[46]	US	case-control	all	✓	✓		✓	✓		***	**	*
Olsen et al. 1991[31]	Denmark	cohort	coffee		✓		✓	✓	✓	***	*	***
McDonald et al. 1992[32]	US	cohort	coffee	✓		✓	✓	✓	✓	**	**	***
Santos et al. 1998[47]	Brazil	case-control	all				✓		✓	**	*	*
Bicalho et al. 2002[37]	US	case-control	all	✓	✓	✓	✓		✓	**	**	*
Bracken et al. 2003[38]	US	cohort	all	✓	✓		✓		✓	****	**	***
Boylan et al. 2008[41]	UK	cohort	all	✓	✓		✓	✓		****	**	***
Bakker et al. 2010[42]	Netherlands	cohort	all	✓	✓		✓	✓	✓	****	**	***

[a] Risk of bias based on Newcastle-Ottawa quality assessment scale for case-control or cohort studies, as appropriate.

Online table 2e. Characteristics and risk of bias table for publications included in meta-analysis of caffeine and small for gestational age infants.

Authors	Location	Design	Source of caffeine	Adjustments						Risk of bias [a]		
				age	parity	previous history	smoking	alcohol	socio-economic	selection	comparability	exposure /outcome
Fenster et al. 1991[46]	US	case-control	all				✓	✓		***	*	*
McDonald et al. 1992[32]	US	cohort	coffee	✓		✓	✓	✓	✓	**	**	***
Fortier et al. 1993[34]	US	case-control	all	✓	✓	✓	✓		✓	***	**	*
Mills et al. 1993[8]	US	cohort	all							***		***
Rondo et al. 1996[48]	US	case-control	coffee				✓	✓	✓	***	*	*
Grosso et al. 2001[49]	US	cohort	all		✓		✓			****	*	***
Bicalho et al. 2002[37]	US	case-control	all	✓	✓	✓	✓		✓	**	**	*
Bracken et al. 2003[38]	US	cohort	all	✓	✓		✓		✓	****	**	***
Vik et al. 2003[50]	Norway	cohort	all							***		***
Parazzini et al. 2005[51]	Italy	case-control	coffee	✓	✓	✓	✓		✓	***	**	*
Xue et al. 2007[52]	US	cohort	coffee		✓		✓		✓	**	*	**
Boylan et al. 2008[41]	UK	cohort	all	✓	✓		✓	✓		****	**	***
Bakker et al. 2010[42]	Netherlands	cohort	all	✓	✓		✓	✓	✓	****	**	***
Sengpiel et al. 2013[43]	Norway	cohort	all	✓	✓	✓	✓	✓	✓	***	**	***
van den Berg et al. 2013[53]	Netherlands	cohort	all						✓	****		***

[a] Risk of bias based on Newcastle-Ottawa quality assessment scale for case-control or cohort studies, as appropriate.

Online table 3a. Subgroup analyses for caffeine intake during pregnancy and incidence of miscarriage.

Subgroup		RR (95% CI)	I^2	n	P_{het} [a]	P_{het} [b]
study design	prospective	1.08 (1.04, 1.13)	46%	13	0.03	
	retrospective	1.12 (1.07, 1.17)	88%	12	<0.001	0.6
caffeine from coffee only	yes	1.10 (1.04, 1.17)	92%	6	<0.001	
	no	1.11 (1.07, 1.15)	60%	19	<0.001	0.7
geographic location	EU	1.11 (1.06, 1.16)	83%	12	<0.001	
	Americas	1.11 (1.05, 1.16)	72%	13	<0.001	
	Other			0		0.9
adjusted for maternal age	yes	1.10 (1.06, 1.14)	82%	20	<0.001	
	no	1.13 (1.07, 1.20)	0%	5	0.6	0.4
adjusted for ethnic group	yes	1.06 (0.99, 1.13)	62%	6	0.02	
	no	1.13 (1.08, 1.17)	78%	19	<0.001	0.2
adjusted for socio-economic factors	yes	1.11 (1.06, 1.15)	87%	13	<0.001	
	no	1.10 (1.05, 1.16)	49%	12	0.03	0.8
adjusted for parity	yes	1.10 (1.05, 1.15)	86%	12	<0.001	
	no	1.11 (1.06, 1.16)	65%	13	<0.001	0.6
adjusted for previous pregnancy outcome	yes	1.11 (1.06, 1.17)	85%	14	<0.001	
	no	1.09 (1.05, 1.14)	58%	11	0.008	0.8
adjusted for smoking	yes	1.15 (1.08, 1.22)	82%	13	<0.001	
	no	1.06 (1.03, 1.09)	65%	12	<0.001	0.1
adjusted for alcohol	yes	1.13 (1.06, 1.19)	83%	13	<0.001	
	no	1.07 (1.03, 1.10)	66%	12	<0.001	0.5
adjusted for nausea	yes	1.13 (1.01, 1.27)	90%	6	<0.001	
	no	1.08 (1.05, 1.12)	69%	19	<0.001	0.7
adjusted for gestational age	yes	1.13 (1.06, 1.21)	41%	6	0.1	
	no	1.10 (1.06, 1.13)	82%	19	<0.001	0.5

[a] P for heterogeneity within each subgroup. [b] P for heterogeneity between each subgroup

Online table 3b. Subgroup analyses for caffeine intake during pregnancy and incidence of stillbirth.

Subgroup		RR (95% CI)	I^2	n	P_{het} [a]	P_{het} [b]
study design	prospective	1.18 (1.00, 1.40)	87%	3	<0.001	
	retrospective	1.21 (1.00, 1.48)	64%	2	.09	0.9
caffeine from coffee only	yes	1.07 (1.01, 1.13)	0%	3	.6	
	no	1.41 (1.22, 1.62)	48%	2	.2	0.02
geographic location	EU	1.18 (1.00, 1.40)	87%	3	<0.001	
	Americas	1.08 (0.88, 1.32)		1		
	Other	1.32 (1.17, 1.49)		1		0.8
adjusted for maternal age	yes	1.18 (1.00, 1.40)	87%	3	<0.001	
	no	1.21 (1.00, 1.48)	64%	2	.09	0.9
adjusted for ethnic group	yes			0		
	no	1.19 (1.05, 1.35)	82%	5	<0.001	
adjusted for socio-economic factors	yes	1.14 (1.00, 1.29)	80%	3	.006	
	no	1.29 (0.91, 1.83)	85%	2	.01	0.5
adjusted for parity	yes	1.18 (1.00, 1.40)	87%	3	<0.001	
	no	1.21 (1.00, 1.48)	64%	2	.09	0.9
adjusted for previous adverse pregnancy outcome	yes	1.32 (1.17, 1.49)		1		
	no	1.16 (1.01, 1.33)	81%	4	.001	0.6
adjusted for smoking	yes	1.21 (1.05, 1.40)	86%	4	<0.001	
	no	1.08 (0.88, 1.32)		1		0.6
adjusted for alcohol	yes	1.18 (1.00, 1.40)	87%	3	<0.001	
	no	1.21 (1.00, 1.48)	64%	2	.09	0.9
adjusted for nausea	yes	1.32 (1.17, 1.49)		1		
	no	1.16 (1.01, 1.33)	81%	4	.001	0.6
adjusted for gestational age	yes			0		
	no	1.19 (1.05, 1.35)	82%	5	<0.001	

[a] P for heterogeneity within each subgroup. [b] P for heterogeneity between each subgroup

Online table 3c. Subgroup analyses for caffeine intake during pregnancy and incidence of preterm birth.

Subgroup		RR (95% CI)	I^2	n	P_{het} [a]	P_{het} [b]
study design	prospective	1.04 (1.00, 1.08)	65%	9	.004	
	retrospective	0.93 (0.86, 1.01)	27%	6	.2	0.04
caffeine from coffee only	yes	1.04 (0.99, 1.09)	75%	4	.007	
	no	1.00 (0.94, 1.06)	58%	11	.008	0.4
geographic location	EU	1.02 (0.98, 1.05)	17%	6	.3	
	Americas	1.01 (0.94, 1.09)	75%	9	<0.001	
	Other			0		1
adjusted for maternal age	yes	1.03 (0.97, 1.09)	75%	9	<0.001	
	no	1.00 (0.96, 1.04)	4%	6	.4	0.4
adjusted for ethnic group	yes	1.01 (0.94, 1.09)	81%	6	<0.001	
	no	1.01 (0.97, 1.06)	29%	9	.2	1
adjusted for socio-economic factors	yes	1.02 (0.97, 1.06)	70%	9	<0.001	
	no	1.03 (0.92, 1.14)	57%	6	.04	0.9
adjusted for parity	yes	1.00 (0.95, 1.06)	72%	9	<0.001	
	no	1.04 (0.97, 1.11)	45%	6	.1	0.5
adjusted for previous adverse pregnancy outcome	yes	1.02 (0.96, 1.08)	77%	8	<0.001	
	no	1.01 (0.96, 1.06)	25%	7	.2	0.9
adjusted for smoking	yes	1.02 (0.98, 1.06)	69%	12	<0.001	
	no	0.97 (0.88, 1.07)	0%	3	.4	0.7
adjusted for alcohol	yes	1.03 (0.99, 1.07)	69%	7	.004	
	no	0.99 (0.89, 1.10)	57%	8	.02	0.4
adjusted for nausea	yes	0.98 (0.92, 1.05)		1		
	no	1.02 (0.98, 1.06)	64%	14	<0.001	0.7
adjusted for gestational age	yes	1.01 (0.93, 1.11)		1		
	no	1.02 (0.97, 1.06)	66%	14	<0.001	1

[a] P for heterogeneity within each subgroup. [b] P for heterogeneity between each subgroup

Online table 3d. Subgroup analyses for caffeine intake during pregnancy and incidence of low birth weight.

Subgroup		RR (95% CI)	I^2	n	P_{het} [a]	P_{het} [b]
study design	prospective	1.10 (1.03, 1.17)	77%	6	<0.001	
	retrospective	1.02 (0.91, 1.16)	78%	5	.001	0.3
caffeine from coffee only	yes	1.04 (1.01, 1.07)	52%	3	.1	
	no	1.12 (0.98, 1.28)	80%	8	<0.001	0.6
geographic location	EU	1.08 (1.01, 1.16)	45%	3	.2	
	Americas	1.09 (1.01, 1.19)	81%	7	<0.001	
	Other	0.92 (0.81, 1.04)		1		0.5
adjusted for maternal age	yes	1.06 (0.97, 1.15)	67%	6	.009	
	no	1.10 (1.00, 1.20)	81%	5	<0.001	0.7
adjusted for ethnic group	yes	1.08 (0.98, 1.18)	79%	8	<0.001	
	no	1.07 (1.02, 1.12)	43%	3	.2	0.8
adjusted for socio-economic factors	yes	1.02 (0.97, 1.07)	64%	6	.02	
	no	1.24 (1.07, 1.43)	71%	5	.008	0.02
adjusted for parity	yes	1.13 (1.02, 1.25)	76%	8	<0.001	
	no	1.03 (0.97, 1.09)	73%	3	.03	0.3
adjusted for previous adverse pregnancy outcome	yes	0.95 (0.80, 1.13)	85%	2	.01	
	no	1.11 (1.04, 1.19)	69%	9	.001	0.1
adjusted for smoking	yes	1.07 (1.01, 1.14)	76%	10	<0.001	
	no	1.08 (1.03, 1.13)		1		0.9
adjusted for alcohol	yes	1.06 (1.02, 1.11)	51%	6	.07	
	no	1.06 (0.91, 1.23)	87%	5	<0.001	0.5
adjusted for nausea	yes			0		
	no	1.07 (1.01, 1.12)	75%	11	<0.001	
adjusted for gestational age	yes	1.24 (1.03, 1.49)	76%	3	.01	
	no	1.03 (0.98, 1.08)	67%	8	.003	0.1

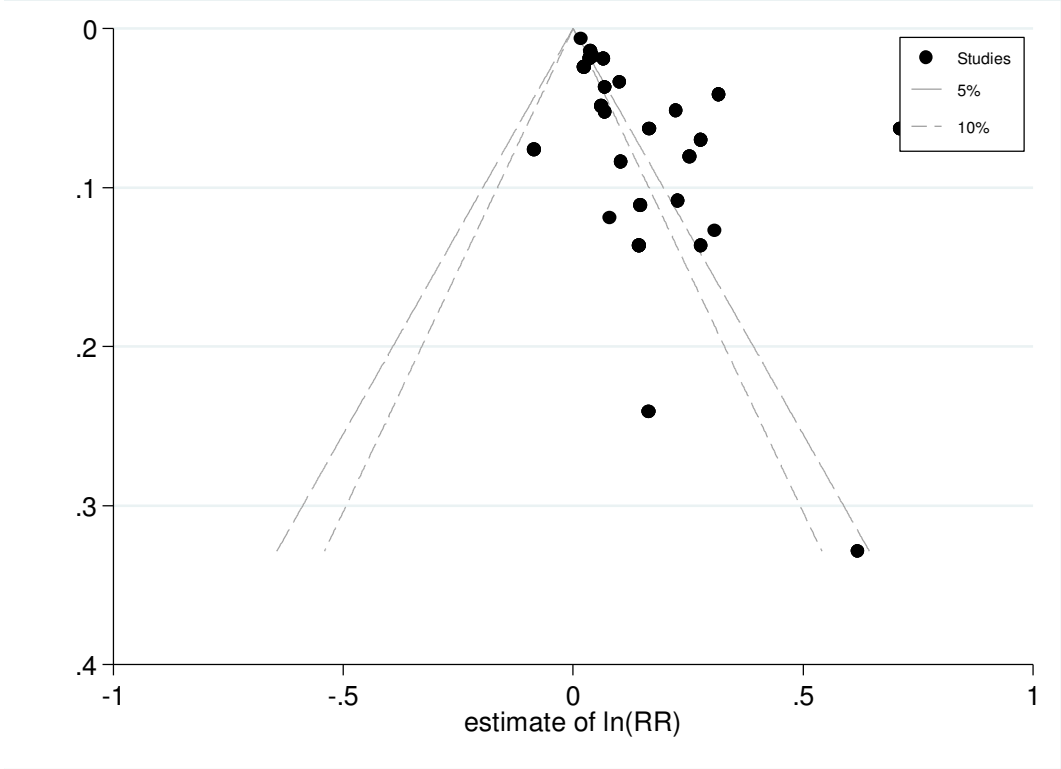
[a] P for heterogeneity within each subgroup. [b] P for heterogeneity between each subgroup

Online table 3e. Subgroup analyses for caffeine intake during pregnancy and incidence of small for gestational age infants.

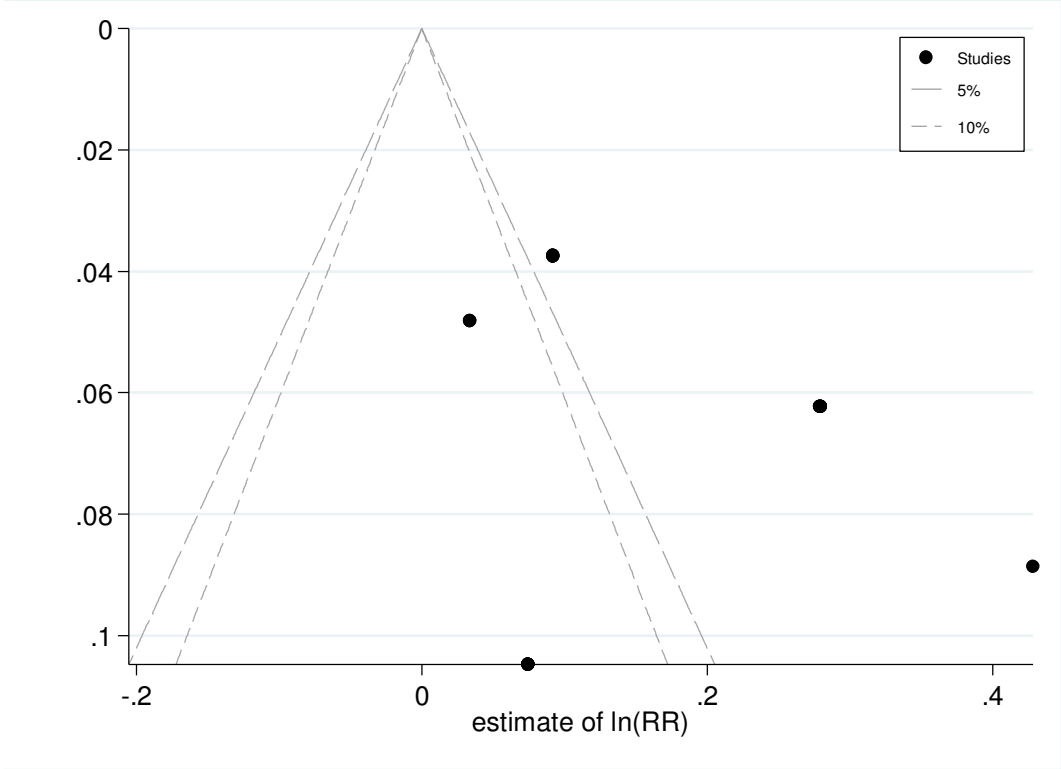
Subgroup		RR (95% CI)	I^2	n	P_{het} [a]	P_{het} [b]
study design	prospective	1.11 (1.05, 1.16)	70%	9	<0.001	
	retrospective	1.09 (1.03, 1.16)	52%	6	.06	0.7
caffeine from coffee only	yes	1.05 (0.99, 1.10)	42%	3	.2	
	no	1.13 (1.07, 1.19)	58%	11	.008	0.2
geographic location	EU	1.11 (1.05, 1.16)	52%	6	.06	
	Americas	1.09 (1.04, 1.16)	70%	9	<0.001	
	Other			0		0.8
adjusted for maternal age	yes	1.07 (1.03, 1.11)	51%	8	.05	
	no	1.17 (1.08, 1.28)	64%	7	.01	0.2
adjusted for ethnic group	yes	1.08 (1.01, 1.15)	61%	5	.04	
	no	1.11 (1.06, 1.17)	60%	10	.007	0.5
adjusted for socio-economic factors	yes	1.08 (1.05, 1.11)	55%	10	.02	
	no	1.21 (1.05, 1.40)	68%	5	.01	0.1
adjusted for parity	yes	1.08 (1.05, 1.11)	28%	9	.2	
	no	1.21 (1.08, 1.36)	80%	6	<0.001	0.2
adjusted for previous adverse pregnancy outcome	yes	1.05 (1.02, 1.09)	51%	5	.08	
	no	1.15 (1.09, 1.21)	48%	10	.05	0.04
adjusted for smoking	yes	1.08 (1.05, 1.11)	53%	12	.02	
	no	1.31 (1.09, 1.58)	67%	3	.05	0.05
adjusted for alcohol	yes	1.09 (1.04, 1.14)	63%	6	.02	
	no	1.10 (1.03, 1.18)	63%	9	.005	0.9
adjusted for nausea	yes	1.07 (1.04, 1.11)		1		
	no	1.11 (1.06, 1.15)	67%	14	<0.001	0.7
adjusted for gestational age	yes	1.14 (1.07, 1.21)	0%	2	.8	
	no	1.09 (1.05, 1.13)	66%	13	<0.001	0.5

[a] P for heterogeneity within each subgroup. [b] P for heterogeneity between each subgroup

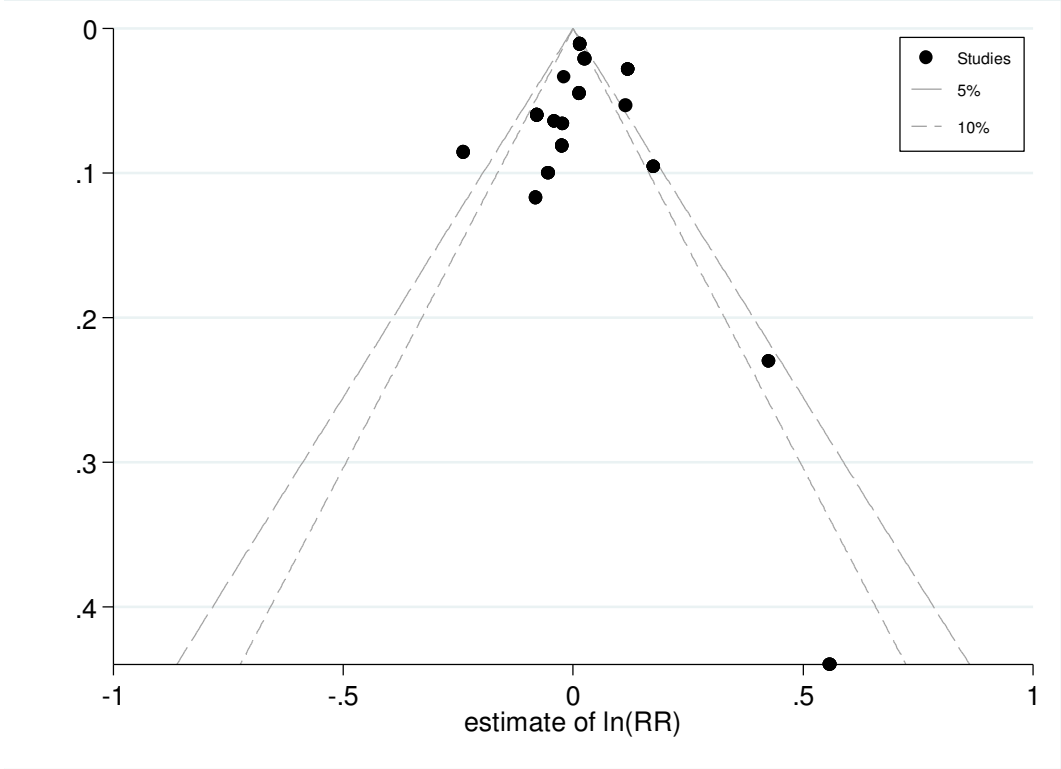
Online figure 1a. Contour-enhanced funnel plot for caffeine intake during pregnancy and incidence of miscarriage.



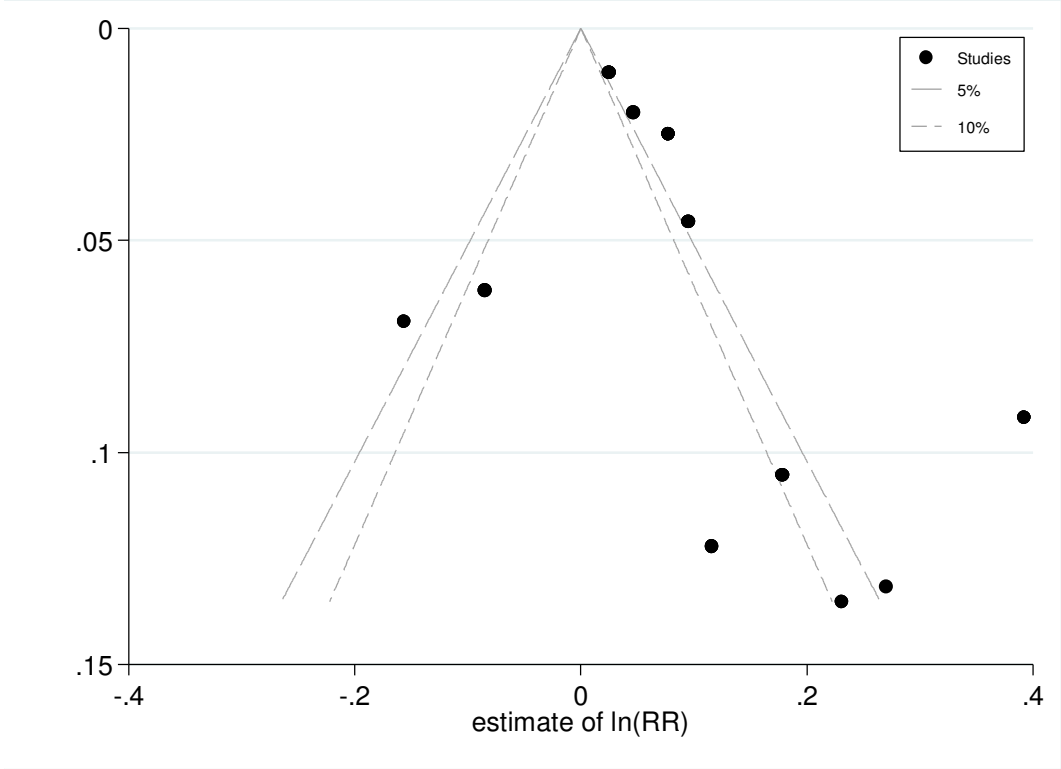
Online figure 1b. Contour-enhanced funnel plot for caffeine intake during pregnancy and incidence of stillbirth.



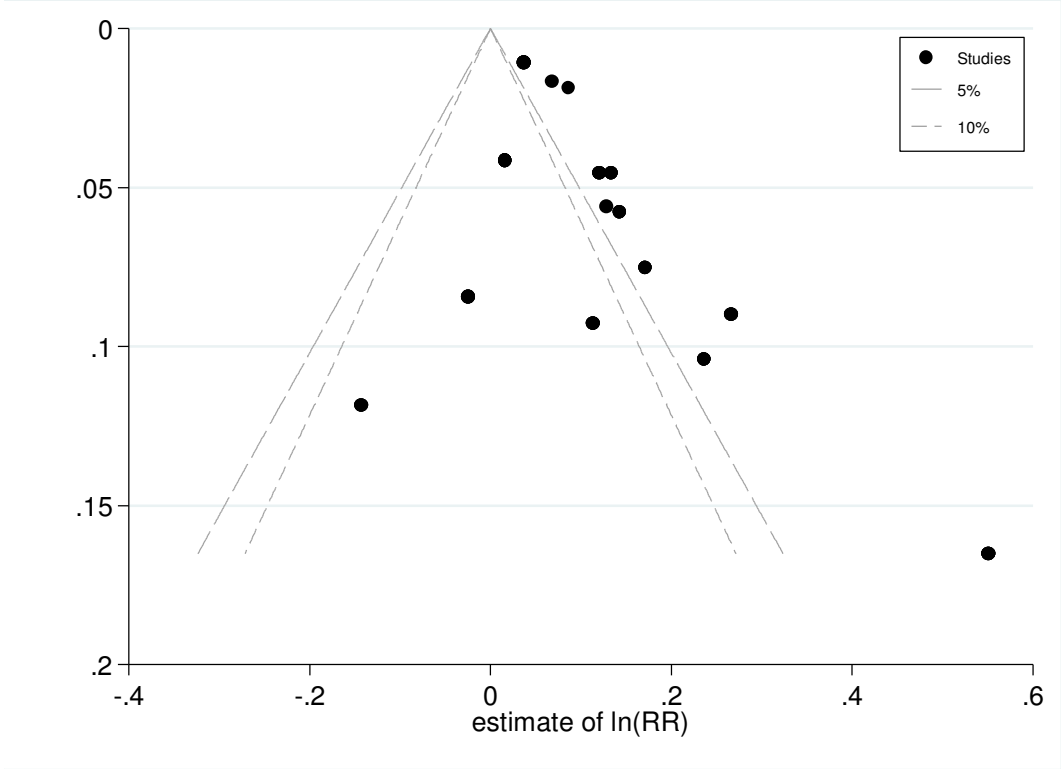
Online figure 1c. Contour-enhanced funnel plot for caffeine intake during pregnancy and incidence of preterm birth.



Online figure 1d. Contour-enhanced funnel plot for caffeine intake during pregnancy and incidence of low birth weight.



Online figure 1e. Contour-enhanced funnel plot for caffeine intake during pregnancy and incidence of small for gestational age infants.



References

1. Srisuphan W, Bracken MB. Caffeine consumption during pregnancy and association with late spontaneous abortion. American Journal of Obstetrics & Gynecology 1986;154:14-20.

2. Hansteen IL. Occupational and lifestyle factors and chromosomal aberrations of spontaneous abortions. Prog Clin Biol Res 1990;340B:467-75.

3. Wilcox AJ, Weinberg CR, Baird DD. Risk factors for early pregnancy loss. Epidemiology 1990;1:382-5.

4. Fenster L, Eskenazi B, Windham GC, Swan SH. Caffeine consumption during pregnancy and spontaneous abortion. Epidemiology 1991;2:168-74.

5. Kline J, Levin B, Silverman J, Kinney A, Stein Z, Susser M, et al. Caffeine and spontaneous abortion of known karyotype. Epidemiology 1991;2:409-17.

6. Armstrong BG, McDonald AD, Sloan M. Cigarette, alcohol, and coffee consumption and spontaneous abortion. Am J Public Health 1992;82:85-7.

7. Infante-Rivard C, Fernandez A, Gauthier R, David M, Rivard GE. Fetal loss associated with caffeine intake before and during pregnancy. JAMA 1993;270:2940-3.

8. Mills JL, Holmes LB, Aarons JH, Simpson JL, Brown ZA, Jovanovic-Peterson LG, et al. Moderate caffeine use and the risk of spontaneous abortion and intrauterine growth retardation. JAMA 1993;269:593-7.

9. Dominguez-Rojas V, De Juanes-Pardo JR, Astasio-Arbiza P, Ortega-Molina P, Gordillo-Florencio E. Spontaneous abortion in a hospital population: are tobacco and coffee intake risk factors? European Journal of Epidemiology 1994;10:665-8.

10. Dlugosz L, Belanger K, Hellenbrand K, Holford TR, Leaderer B, Bracken MB. Maternal caffeine consumption and spontaneous abortion: a prospective cohort study. Epidemiology 1996;7:250-5.

11. Agnesi R, Valentini F, Mastrangelo G. Risk of spontaneous abortion and maternal exposure to organic solvents in the shoe industry. International Archives of Occupational and Environmental Health 1997;69:311-6.

12. Fenster L, Hubbard AE, Swan SH, Windham GC, Waller K, Hiatt RA, et al. Caffeinated beverages, decaffeinated coffee, and spontaneous abortion. Epidemiology 1997;8:515-23.

13. Parazzini F, Chatenoud L, Di CE, Mezzopane R, Surace M, Zanconato G, et al. Coffee consumption and risk of hospitalized miscarriage before 12 weeks of gestation. Human Reproduction 1998;13:2286-91.

14. Cnattingius S, Signorello LB, Anneren G, Clausson B, Ekbom A, Ljunger E, et al. Caffeine intake and the risk of first-trimester spontaneous abortion. New England Journal of Medicine 2000;343:1839-45.

15. Wen W, Shu XO, Jacobs DR, Jr., Brown JE. The associations of maternal caffeine consumption and nausea with spontaneous abortion. Epidemiology 2001;12:38-42.

16. Giannelli M, Doyle P, Roman E, Pelerin M, Hermon C. The effect of caffeine consumption and nausea on the risk of miscarriage. Paediatric and Perinatal Epidemiology 2003;17:316-23.

17. Rasch V. Cigarette, alcohol, and caffeine consumption: risk factors for spontaneous abortion. Acta Obstetricia et Gynecologica Scandinavica 2003;82:182-8.

18. Tolstrup JS, Kjaer SK, Munk C, Madsen LB, Ottesen B, Bergholt T, et al. Does caffeine and alcohol intake before pregnancy predict the occurrence of spontaneous abortion? Human Reproduction 2003;18:2704-10.

19. Wisborg K, Kesmodel U, Henriksen TB, Hedegaard M, Secher NJ. A prospective study of maternal smoking and spontaneous abortion. Acta Obstetricia et Gynecologica Scandinavica 2003;82:936-41.

20. Khoury JC, Miodovnik M, Buncher CR, Kalkwarf H, McElvy S, Khoury PR, et al. Consequences of smoking and caffeine consumption during pregnancy in women with type 1 diabetes. J Matern Fetal Neonatal Med 2004;15:44-50.

21. Bech BH, Nohr EA, Vaeth M, Henriksen TB, Olsen J. Coffee and fetal death: a cohort study with prospective data. American Journal of Epidemiology 2005;162:983-90.

22. George L, Granath F, Johansson AL, Anneren G, Cnattingius S. Environmental tobacco smoke and risk of spontaneous abortion. Epidemiology 2006;17:500-5.

23. Maconochie N, Doyle P, Prior S, Simmons R. Risk factors for first trimester miscarriage--results from a UK-population-based case-control study. BJOG: An International Journal of Obstetrics & Gynaecology 2007;114:170-86.

24. Savitz DA, Chan RL, Herring AH, Howards PP, Hartmann KE. Caffeine and miscarriage risk. Epidemiology 2008;19:55-62.

25. Weng X, Odouli R, Li DK. Maternal caffeine consumption during pregnancy and the risk of miscarriage: a prospective cohort study. American Journal of Obstetrics & Gynecology 2008;198:279-8.

26. Greenwood DC, Alwan N, Boylan S, Cade JE, Charvill J, Chipps KC, et al. Caffeine intake during pregnancy, late miscarriage and stillbirth. European Journal of Epidemiology 2010;25:275-80.

27. Linn S, Schoenbaum SC, Monson RR. No association between coffee consumption and adverse outcomes of pregnancy. New England Journal of Medicine 1982;306:1982.

28. Wisborg K, Kesmodel U, Bech BH, Hedegaard M, Henriksen TB. Maternal consumption of coffee during pregnancy and stillbirth and infant death in first year of life: prospective study. BMJ 2003;326:420.

29. Matijasevich A, Barros FC, Santos IS, Yemini A. Maternal caffeine consumption and fetal death: a case-control study in Uruguay. Paediatric and Perinatal Epidemiology 2006;20:100-9.

30. Berkowitz GS, Holford TR, Berkowitz RL. Effects of cigarette smoking, alcohol, coffee and tea consumption on preterm delivery. Early Human Development 1982;7:239-50.

31. Olsen J, Overvad K, Frische G. Coffee consumption, birthweight, and reproductive failures. Epidemiology 1991;2:370-4.

32. McDonald AD, Armstrong BG, Sloan M. Cigarette, alcohol, and coffee consumption and prematurity. Am J Public Health 1992;82:87-90.

33. Williams MA, Mittendorf R, Stubblefield PG, Lieberman E, Schoenbaum SC, Monson RR. Cigarettes, coffee, and preterm premature rupture of the membranes. American Journal of Epidemiology 1992;135:895-903.

34. Fortier I, Marcoux S, Beaulac-Baillargeon L. Relation of caffeine intake during pregnancy to intrauterine growth retardation and preterm birth. American Journal of Epidemiology 1993;137:931-40.

35. Pastore LM, Savitz DA. Case-control study of caffeinated beverages and preterm delivery. American Journal of Epidemiology 1995;141:61-9.

36. Peacock JL, Bland JM, Anderson HR. Preterm delivery: effects of socioeconomic factors, psychological stress, smoking, alcohol, and caffeine. BMJ 1995;311:531-5.

37. Bicalho GG, Barros Filho AA. Birthweight and caffeine consumption. Revista de Saude Publica 2002;36:2002.

38. Bracken MB, Triche EW, Belanger K, Hellenbrand K, Leaderer BP. Association of maternal caffeine consumption with decrements in fetal growth. American Journal of Epidemiology 2003;157:456-66.

39. de Souza RAG, Sichieri R. Caffeine intake and food sources of caffeine and prematurity: a case-control study. Cad Saúde Pública 2005;21:1919-28.

40. Chiaffarino F, Parazzini F, Chatenoud L, Ricci E, Tozzi L, Chiantera V, et al. Coffee drinking and risk of preterm birth. European journal of clinical nutrition 2006;60:610-3.

41. Boylan S, Cade JE, Dolby VA, Greenwood DC, Hay AWM, Kirk SFL, et al. Maternal caffeine intake during pregnancy and risk of fetal growth restriction: a large prospective observational study. BMJ 2008;337:a2332.

42. Bakker R, Steegers EA, Obradov A, Raat H, Hofman A, Jaddoe VW. Maternal caffeine intake from coffee and tea, fetal growth, and the risks of adverse birth outcomes: the Generation R Study. American Journal of Clinical Nutrition 2010;91:1691-8.

43. Sengpiel V, Elind E, Bacelis J, Nilsson S, Grove J, Myhre R, et al. Maternal caffeine intake during pregnancy is associated with birth weight but not with gestational length: results from a large prospective observational cohort study. BMC Medicine 2013;11:42.

44. Martin TR, Bracken MB. The association between low birth weight and caffeine consumption during pregnancy. American Journal of Epidemiology 1987;126:813-21.

45. Caan BJ, Goldhaber MK. Caffeinated beverages and low birthweight: a case-control study. American Journal of Public Health 1989;79:1299-300.

46. Fenster L, Eskenazi B, Windham GC, Swan SH. Caffeine consumption during pregnancy and fetal growth. American Journal of Public Health 1991;81:458-61.

47. Santos IS, Victora CG, Huttly S, Carvalhal JB. Caffeine intake and low birth weight: a population-based case-control study. American Journal of Epidemiology 1998;147:620-7.

48. Rondo PH, Rodrigues LC, Tomkins AM. Coffee consumption and intrauterine growth retardation in Brazil. European journal of clinical nutrition 1996;50:705-9.

49. Grosso LM, Rosenberg KD, Belanger K, Saftlas AF, Leaderer B, Bracken MB. Maternal caffeine intake and intrauterine growth retardation. Epidemiology 2001;12:447-55.

50. Vik T, Bakketeig LS, Trygg KU, Lund-Larsen K, Jacobsen G. High caffeine consumption in the third trimester of pregnancy: gender-specific effects on fetal growth. Paediatric and Perinatal Epidemiology 2003;17:324-31.

51. Parazzini F, Chiaffarino F, Chatenoud L, Tozzi L, Cipriani S, Chiantera V, et al. Maternal coffee drinking in pregnancy and risk of small for gestational age birth. European journal of clinical nutrition 2005;59:299-301.

52. Xue F, Willett WC, Rosner BA, Forman MR, Michels KB. Parental characteristics as predictors of birthweight. Human Reproduction 2008;23:168-77.

53. Van den Berg G, van EM, Galindo-Garre F, Vrijkotte TGM, Gemke RJBJ. Smoking overrules many other risk factors for small for gestational age birth in less educated mothers. Early Human Development 2013;89:497-501.