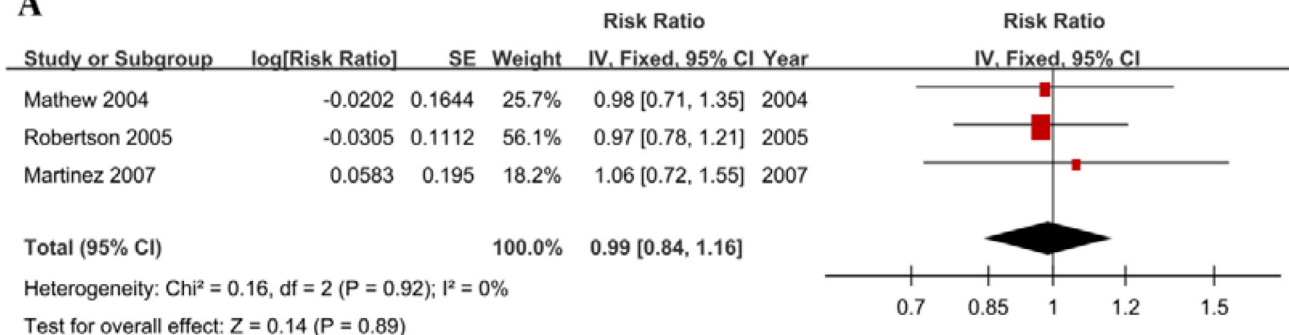


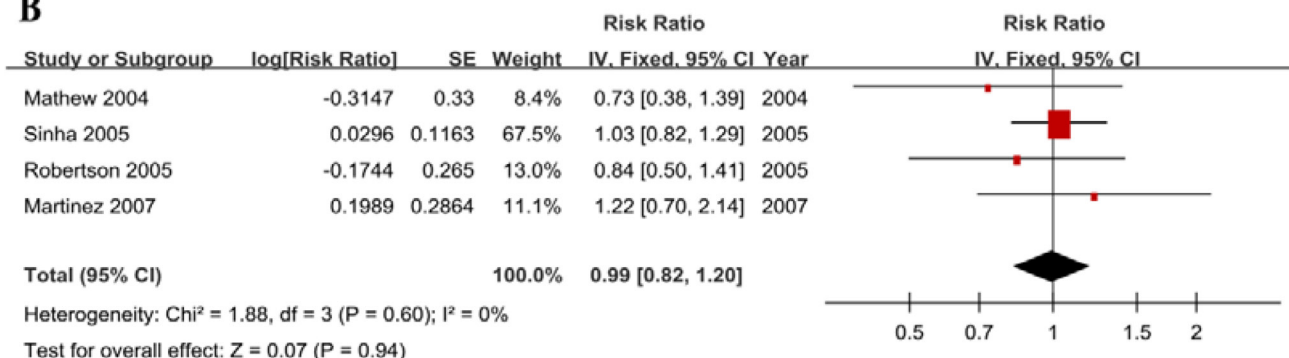
Association between red and processed meat intake and colorectal adenoma incidence and recurrence: a systematic review and meta-analysis

SUPPLEMENTARY MATERIALS

A



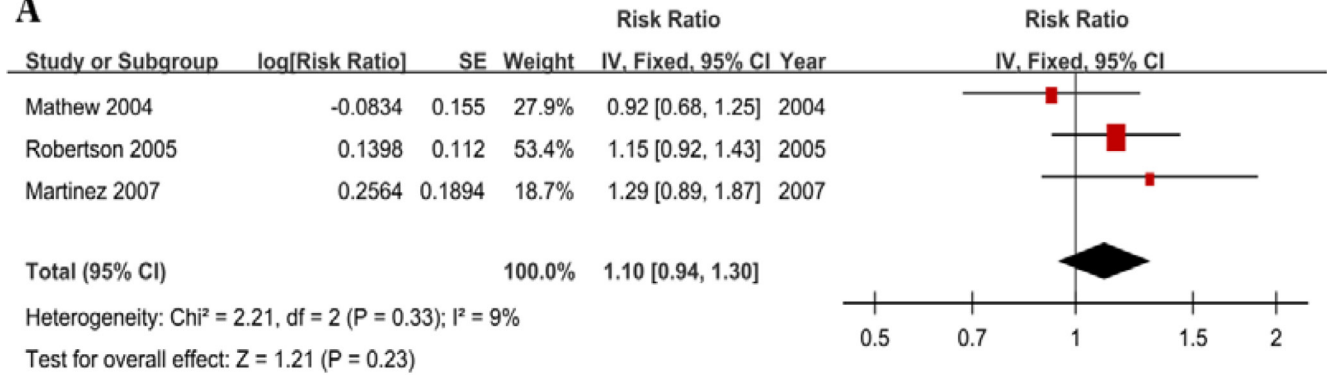
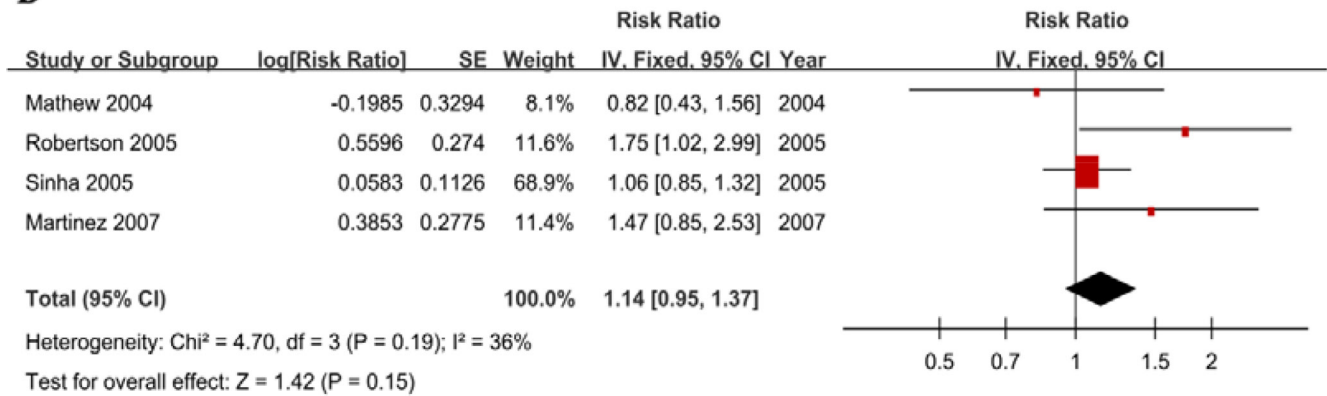
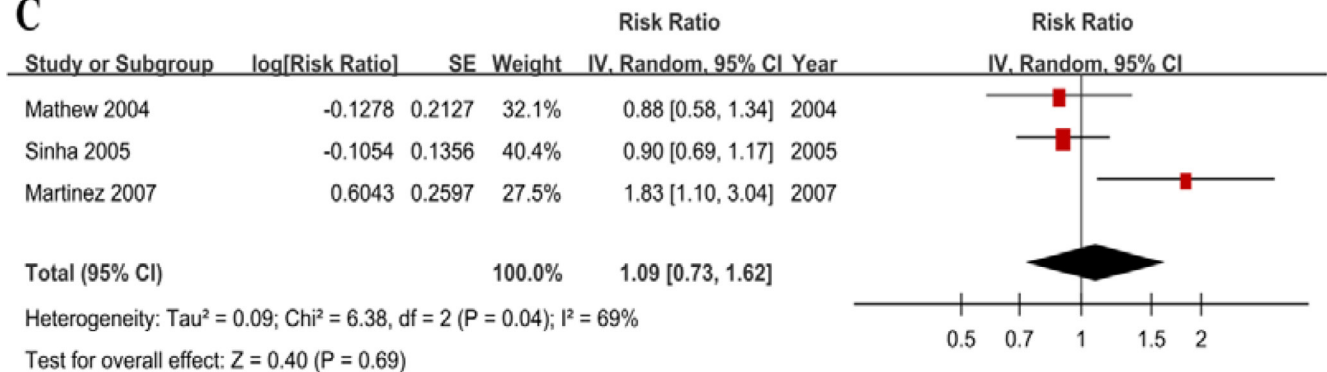
B



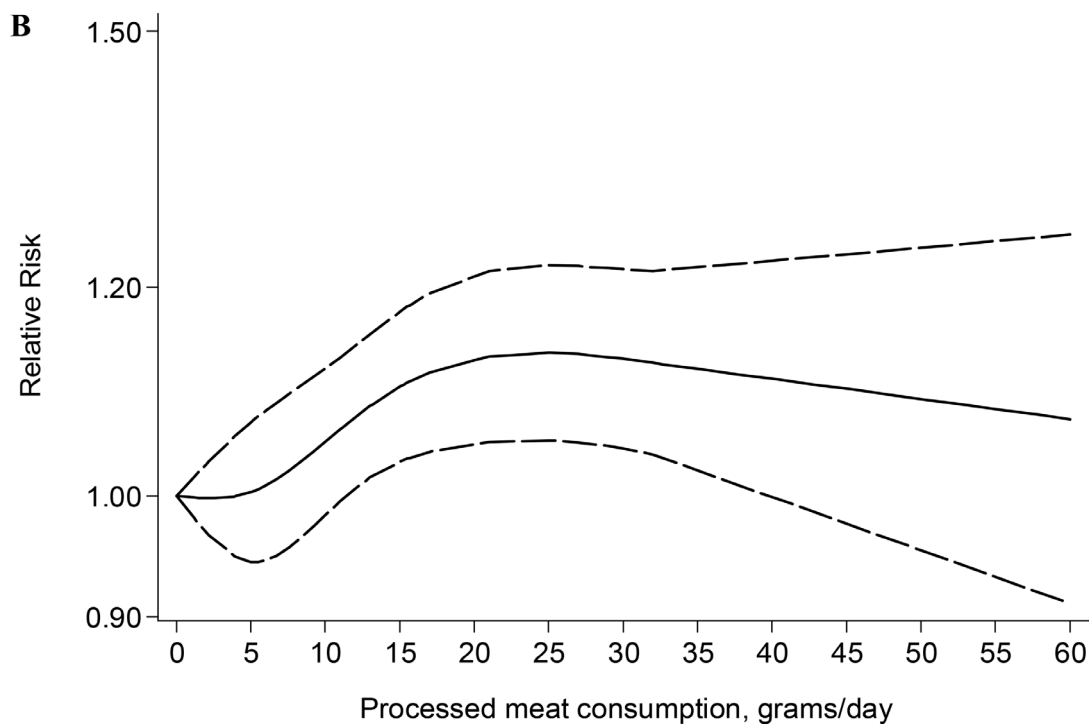
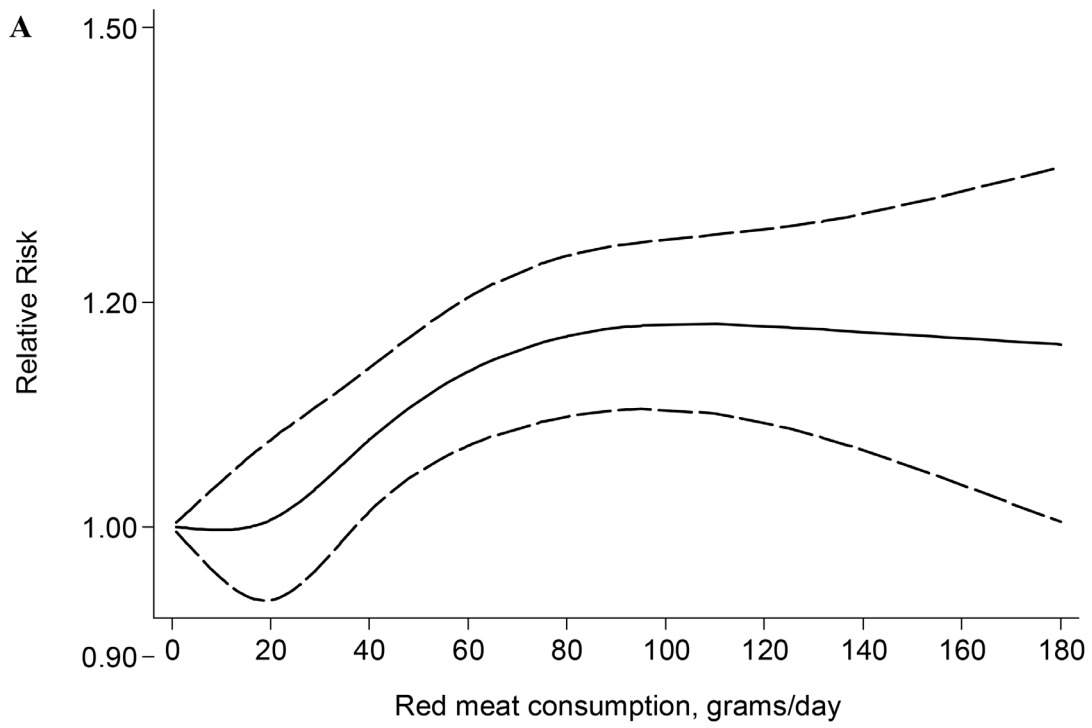
C



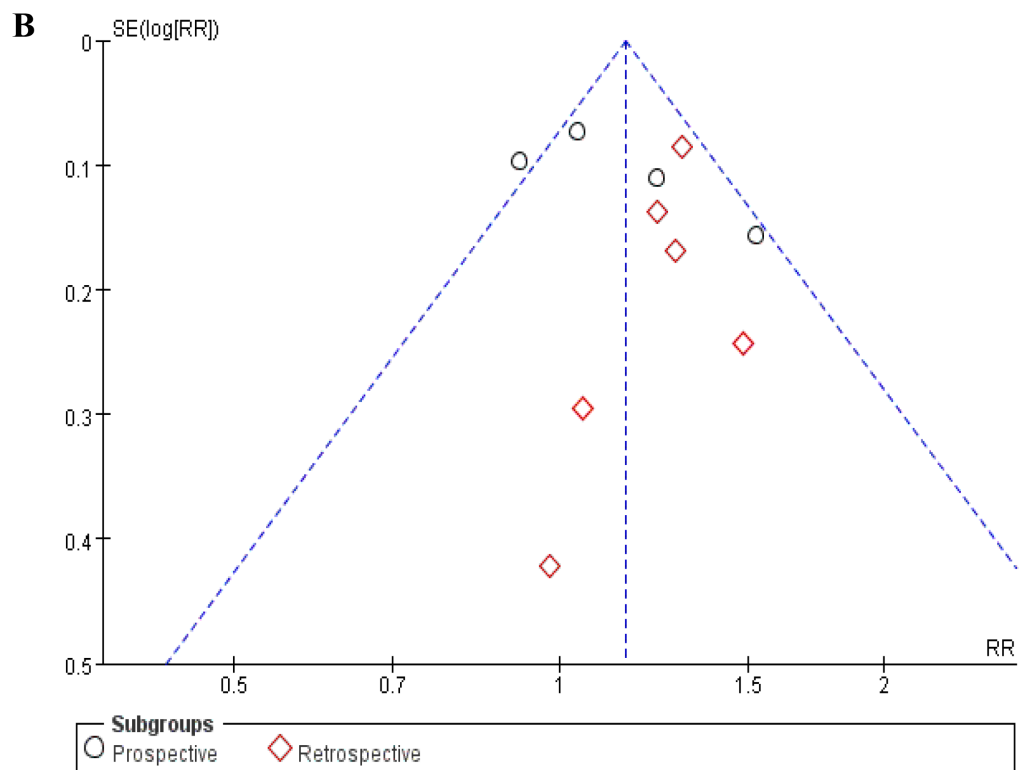
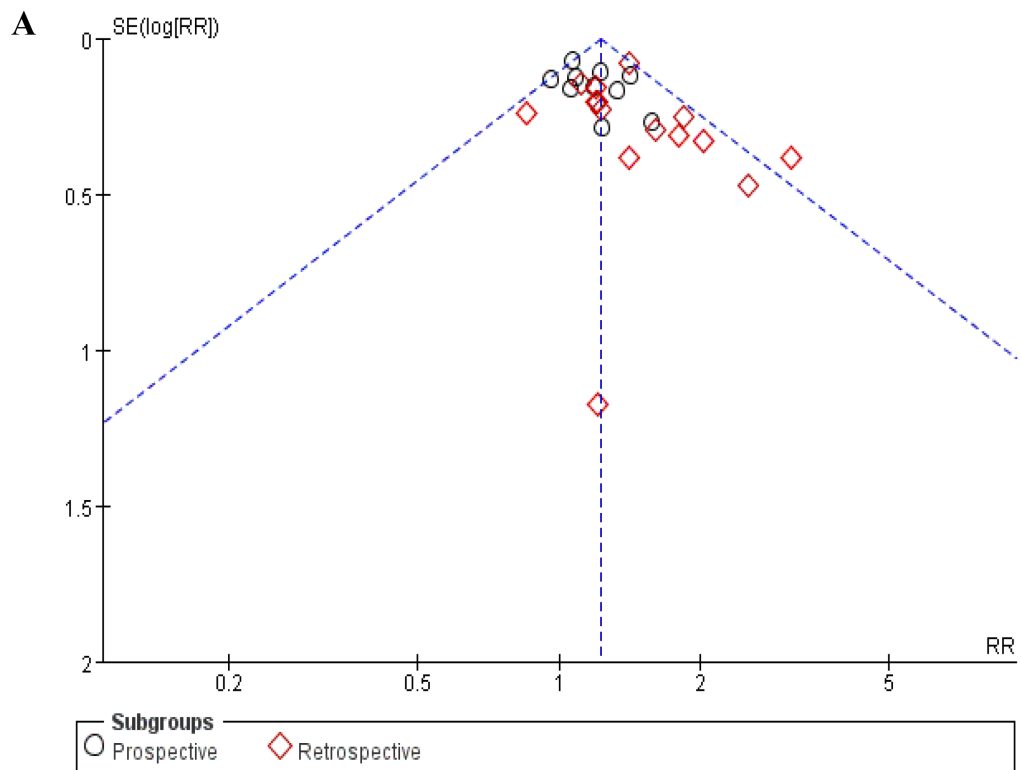
Supplementary Figure 1: Forest plots of red meat intake and colorectal adenoma recurrence. (A) Total colorectal adenoma. (B) Advanced colorectal adenoma. (C) Multiple colorectal adenoma.

A**B****C**

Supplementary Figure 2: Forest plots of processed meat intake and colorectal adenoma recurrence. (A) Total colorectal adenoma. (B) Advanced colorectal adenoma. (C) Multiple colorectal adenoma.



Supplementary Figure 3: Nonlinear associations between (A) red meat intake and (B) processed meat intake and colorectal adenoma incidence.



Supplementary Figure 4: Funnel plots evaluating publication bias of red and processed meat intake and colorectal adenoma incidence. (A) Red meat. (B) Processed meat. SE: standard error. RR: relative risk.

Supplementary Table 1: Subgroup analyses of red meat intake for Highest vs Lowest comparisons and CRA incidence

Subgroups	Red meat				
	N	RR (95% CI)	P_o	P_h	I_h^2 (%)
All studies	25	1.23 (1.15–1.31)	< .01	.13	25
Geographic area					
America	15	1.22 (1.14–1.31)	< .01	.15	28
Europe	6	1.25 (1.03–1.52)	.02	.14	40
Asia	4	1.22 (1.00–1.50)	.05	.26	25
Sample size					
≥ 500	11	1.21 (1.13–1.30)	< .01	.27	18
< 500	14	1.27 (1.12–1.44)	< .01	.12	32
Publication year					
2005 or later	17	1.21 (1.13–1.29)	< .01	.21	21
Before 2005	8	1.38 (1.15–1.65)	< .01	.20	29
Adjustments Smoking					
Yes	16	1.22 (1.14–1.30)	< .01	.13	30
No	9	1.28 (1.08–1.53)	< .01	.25	21
Alcohol					
Yes	15	1.21 (1.13–1.30)	< .01	.13	30
No	10	1.29 (1.10–1.51)	< .01	.26	20
BMI					
Yes	16	1.29 (1.20–1.40)	< .01	.09	34
No	9	1.11 (0.99–1.23)	.06	.88	0
Energy intake					
Yes	17	1.25 (1.16–1.34)	< .01	.04	41
No	8	1.16 (1.01–1.33)	.04	.82	0
Physical activity					
Yes	16	1.23 (1.15–1.32)	< .01	.12	30
No	9	1.20 (1.03–1.41)	.02	.24	23
Dietary fiber					
Yes	8	1.21 (1.10–1.32)	< .01	.16	33
No	17	1.24 (1.14–1.35)	< .01	.17	24
Family history of CRC/polyps					
Yes	10	1.21 (1.09–1.33)	< .01	.50	0
No	15	1.24 (1.14–1.35)	< .01	.06	40
NSAIDs					
Yes	12	1.24 (1.15–1.33)	< .01	.12	34
No	13	1.19 (1.05–1.35)	< .01	.25	19

NOTE. Boldface indicates statistical significance.

N: number of included studies. CRA: colorectal adenoma. CRC: colorectal cancer. BMI: body mass index. NSAIDs: non-steroidal anti-inflammatory drugs. P_o : test for over effect. P_h : P value for heterogeneity within each subgroup. I_h^2 : I^2 value for heterogeneity within each subgroup.

Supplementary Table 2: Subgroup analyses of processed meat intake for Highest vs Lowest comparisons and CRA incidence

Subgroups	Processed meat				
	N	RR (95% CI)	P_o	P_h	I_h^2 (%)
All studies	10	1.15 (1.07–1.24)	< .01	.10	39
Geographic area					
America	9	1.15 (1.06–1.24)	< .01	.07	44
Europe	0	-	-	-	-
Asia	1	1.28 (0.92–1.78)	.14	-	-
Sample size					
≥ 500	7	1.18 (1.04–1.33)	.01	.04	55
< 500	3	1.23 (0.88–1.72)	.22	.56	0
Publication year					
2005 or later	9	1.16 (1.04–1.30)	< .01	.09	41
Before 2005	1	1.48 (0.92–2.38)	.11	-	-
Adjustments Smoking					
Yes	10	1.18 (1.06–1.31)	< .01	.54	0
No	0	-	-	-	-
Alcohol					
Yes	7	1.13 (1.04–1.22)	< .01	.13	40
No	3	1.45 (1.14–1.86)	.20	.90	0
BMI					
Yes	8	1.18 (1.05–1.32)	< .01	.22	26
No	2	1.23 (0.85–1.77)	.28	.03	79
Energy intake					
Yes	8	1.17 (1.04–1.33)	< .01	.05	51
No	2	1.23 (0.91–1.68)	.55	-	-
Physical activity					
Yes	10	1.18 (1.06–1.31)	< .01	.54	0
No	0	-	-	-	-
Dietary fiber					
Yes	5	1.11 (0.99–1.24)	.07	.53	0
No	5	1.21 (1.02–1.45)	.03	.03	63
Family history of CRC/polyps					
Yes	6	1.16 (0.97–1.39)	.10	.09	47
No	4	1.19 (1.03–1.38)	.02	.16	42
NSAIDs					
Yes	8	1.18 (1.04–1.34)	.01	.05	51
No	2	1.20 (0.93–1.55)	.16	.61	0

NOTE. Boldface indicates statistical significance.

N: number of included studies. CRA: colorectal adenoma. CRC: colorectal cancer. BMI: body mass index. NSAIDs: nonsteroidal anti-inflammatory drugs. P_o : test for over effect. P_h : P value for heterogeneity within each subgroup. I_h^2 : I^2 value for heterogeneity within each subgroup.