

## *Supplementary Material*

### **Table of Contents**

- Table S1** Pearson's correlation of food groups intake derived from a FFQ survey and two 24-h dietary recalls among 200 Chinese from LP3C
- Table S2** The definition of healthy diet score in the Lanxi Pre-Colorectal Cancer Cohort (LP3C)
- Table S3** Multivariable-adjusted ORs (95% CIs) of egg consumption with the prevalence of polyps according to sizes
- Table S4** Multivariable-adjusted ORs (95% CIs) of egg consumption with the prevalence of polyps according to polyp numbers
- Table S5** Sensitivity analyses for multivariable-adjusted ORs (95% CIs) of egg consumption with the prevalence of polyps
- Table S6** Subgroup analyses for multivariable-adjusted ORs (95% CIs) of egg consumption with the prevalence of polyps
- Table S7** Multivariable-adjusted ORs (95% CIs) of dietary nutrient with risk of colorectal polyps
- Table S8** Multivariable-adjusted ORs (95% CIs) of egg consumption (per 1 g · 2000 kcal<sup>-1</sup> · d<sup>-1</sup>) with the prevalence of colorectal polyps in the LP3C study

**Table S1 Pearson's correlation of food groups intake derived from a FFQ survey and two 24-h dietary recalls among 200 Chinese from LP3C**

	FFQ VS 1st 24-h recall	P-value	FFQ VS 2nd 24-h recall	P-value	FFQ VS average of 24-h recalls	P-value
Total energy intake	0.5	<0.001	0.5	<0.001	0.6	<0.001
Rice	0.5	<0.001	0.4	<0.001	0.5	<0.001
Fish	0.3	<0.001	0.4	<0.001	0.5	<0.001
Beverage	0.3	<0.001	0.5	<0.001	0.5	<0.001
Egg	0.3	<0.001	0.3	<0.001	0.4	<0.001
Vegetables	0.3	<0.001	0.3	<0.001	0.4	<0.001
Fruit	0.5	<0.001	0.2	<0.001	0.4	<0.001
Milk products	0.4	<0.001	0.4	<0.001	0.4	<0.001
Tea	0.4	<0.001	0.4	<0.001	0.4	<0.001
Alcohol	0.3	<0.001	0.4	<0.001	0.4	<0.001
Red meat	0.3	<0.001	0.3	<0.001	0.3	<0.001
Poultry	0.2	0.004	0.2	0.01	0.3	<0.001

**Table S2 The definition of healthy diet score in the Lanxi Pre-Colorectal Cancer Cohort (LP3C)***a*

Item	Intake median (g · 2000 kcal <sup>-1</sup> · d <sup>-1</sup> )	Score criteria	Score
Wholegrain	1.8	≥median	1
		<median	0
Refined grain	408.3	≥median	0
		<median	1
Fruits	68.6	≥median	1
		<median	0
Fresh vegetables	217.8	≥median	1
		<median	0
Seafood	10.8	≥median	1
		<median	0
Unprocessed red meat	50.8	≥median	0
		<median	1
Processed red meat	0	≥median	0
		<median	1
Milk or yogurt	0	≥median	1
		<median	0
Tea	0	≥median	1
		<median	0
Preserved vegetables	0.7	≥median	0
		<median	1

*a* The details of the score were shown as follows: wholegrain intake (≥median), refined grain intake (<median), seafood intake (≥median), unprocessed red meat intake (<median), processed red meat intake (<median), fruit intake (≥median), vegetable intake (≥median), preserved vegetable intake (<median), milk products (milk or yogurt) intake (≥median), and tea intake (≥median). Each beneficial diet factor could get one point and the total score was defined as the sum of 10 important food scores. The range of healthy diet scores was from 0 to 10.

**Table S3 Multivariable-adjusted ORs (95% CIs) of egg consumption with risk of polyps according to sizes <sup>a</sup>**

Egg consumption	Size			
	<10 mm		≥10 mm	
	Cases	OR (95% CI)	Cases	OR (95% CI)
Q1	410	1 (ref)	64	1 (ref)
Q2	460	1.16(0.98-1.36)	71	1.17(0.82-1.66)
Q3	444	1.14(0.97-1.34)	86	1.45(1.03-2.04)
Q4	451	1.21(1.02-1.43)	78	1.40(0.98-1.99)
<i>P</i> <sub>trend</sub>		0.04		0.03

<sup>a</sup>Q, quartile; OR, odds ratio; CI, confidence interval; Multivariable-adjusted was adjusted for age, sex, BMI (<18.5, 18.5-23.9, 24-27.9, ≥28, in kg/m<sup>2</sup>), smoking (never, past smokers with <25 pack-years or ≥25 pack-years, or current smokers with <25 pack-years or ≥25 pack-years), alcohol consumption (never, ≤25 mL for men and ≤15 mL for women, or >25 mL for men and >15 mL for women), household annual income (yuan), physical activity (quartile), vitamin supplement use (yes or no), family history of colorectal cancer (yes or no), total energy intake (quartile), and healthy diet score (quartile).

**Table S4 Multivariable-adjusted ORs (95% CIs) of egg consumption with risk of polyps according to polyp numbers <sup>a</sup>**

Egg consumption	Multiplicity			
	Single		Multiple	
	Cases	OR (95% CI)	Cases	OR (95% CI)
Q1	367	1 (ref)	107	1 (ref)
Q2	385	1.09(0.92-1.29)	146	1.40(1.07-1.83)
Q3	387	1.12(0.94-1.33)	143	1.42(1.08-1.86)
Q4	402	1.19(1.00-1.41)	127	1.40(1.05-1.86)
<i>P</i> <sub>trend</sub>		0.05		0.03

<sup>a</sup> Q, quartile; OR, odds ratio; CI, confidence interval; Multivariable-adjusted was adjusted for age, sex, BMI (<18.5, 18.5-23.9, 24-27.9, ≥28, in kg/m<sup>2</sup>), smoking (never, past smokers with <25 pack-years or ≥25 pack-years, or current smokers with <25 pack-years or ≥25 pack-years), alcohol consumption (never, ≤25 mL for men and ≤15 mL for women, or >25 mL for men and >15 mL for women), household annual income (yuan), physical activity (quartile), vitamin supplement use (yes or no), family history of colorectal cancer (yes or no), total energy intake (quartile), and healthy diet score (quartile).

**Table S5 Multivariable-adjusted ORs (95% CIs) of egg consumption with risk of polyps for sensitivity analysis <sup>a</sup>**

	Cases/n	Quartiles of egg consumption (g · 2000 kcal <sup>-1</sup> · d <sup>-1</sup> )				<i>P</i> <sub>trend</sub>
		Q1	Q2	Q3	Q4	
Excluding persons with history of cancer	2040/6702	1 (ref)	1.15(0.99-1.35)	1.18(1.01-1.38)	1.24(1.06-1.46)	0.01
Excluding persons with extreme BMIs	1993/6492	1 (ref)	1.19(1.01-1.39)	1.24(1.05-1.45)	1.27(1.08-1.50)	0.003
Excluding persons with extreme energy <sup>b</sup>	2018/6682	1 (ref)	1.16(0.99-1.36)	1.17(0.99-1.36)	1.23(1.05-1.44)	0.02
Excluding persons with extreme egg consumption	1665/ 5377	1 (ref)	1.18(0.99-1.42)	1.21(1.01-1.45)	1.26(1.02-1.55)	0.04
Excluding persons with family history of colorectal cancer	1919/6315	1 (ref)	1.13(0.96-1.33)	1.16(0.99-1.36)	1.20(1.02-1.41)	0.03
Further adjustment for calcium supplement use	2064/6783	1 (ref)	1.16(0.99-1.35)	1.18(1.01-1.38)	1.23(1.05-1.44)	0.01
Further adjustment for aspirin use	2064/6783	1 (ref)	1.15(0.99-1.34)	1.18(1.01-1.38)	1.23(1.04-1.44)	0.01
Further adjustment for education level	2064/6783	1 (ref)	1.15(0.99-1.34)	1.17(1.00-1.37)	1.21(1.03-1.42)	0.02
Further adjustment for dietary cholesterol	2064/6783	1 (ref)	1.13(0.97-1.32)	1.12(0.94-1.33)	1.09(0.87-1.37)	0.37

<sup>a</sup> Q, quartile; <sup>b</sup> Extreme energy: Males: <800 kcal/d or >4200 kcal/d and females: <600 kcal/d or >3500 kcal/d; Multivariable-adjusted was adjusted for age, sex, BMI (<18.5, 18.5-23.9, 24-27.9, ≥28, in kg/m<sup>2</sup>), smoking (never, past smokers with <25 pack-years or ≥25 pack-years, or current smokers with <25 pack-years or ≥25 pack-years), alcohol consumption (never, ≤25 mL for men and ≤15 mL for women, or >25 mL for men and >15 mL for women), household annual income (yuan), physical activity (quartile), vitamin supplement use (yes or no), family history of colorectal cancer (yes or no), total energy intake (quartile), and healthy diet score (quartile).

**Table S6 Multivariable-adjusted ORs (95% CIs) of egg consumption with risk of polyps for subgroup analysis <sup>a</sup>**

Subgroups	Cases/n	Quartiles of egg consumption (g · 2000 kcal <sup>-1</sup> · d <sup>-1</sup> )				<i>P</i> <sub>trend</sub>	<i>P</i> <sub>interaction</sub>
		Q1	Q2	Q3	Q4		
<b>Age</b>							
<60 y	786/3344	1 (ref)	1.13(0.89-1.45)	1.28(1.00-1.64)	1.35(1.05-1.74)	0.01	0.58
≥60 y	1278/3439	1 (ref)	1.21(0.99-1.48)	1.13(0.92-1.39)	1.18(0.96-1.45)	0.20	
<b>Sex</b>							
Men	1391/3498	1 (ref)	1.15(0.94-1.40)	1.17(0.96-1.43)	1.26(1.02-1.55)	0.04	0.78
Women	673/3285	1 (ref)	1.15(0.89-1.47)	1.23(0.96-1.58)	1.21(0.94-1.55)	0.11	
<b>BMI</b>							
<24	1118/3993	1 (ref)	1.05(0.86-1.30)	1.08(0.88-1.33)	1.19(0.96-1.47)	0.11	0.90
≥24	946/2790	1 (ref)	1.30(1.03-1.64)	1.30(1.03-1.65)	1.27(1.00-1.63)	0.06	
<b>Physical activity</b>							
<Median	1082/3381	1 (ref)	0.98(0.78-1.22)	1.08(0.86-1.35)	1.15(0.92-1.43)	0.14	0.35
≥Median	982/3402	1 (ref)	1.33(1.08-1.65)	1.27(1.02-1.59)	1.31(1.04-1.65)	0.03	
<b>Smoking</b>							
Nonsmoker	1082/4451	1 (ref)	1.09(0.89-1.34)	1.15(0.94-1.41)	1.19(0.97-1.46)	0.08	0.78
Former/current smoker	982/2332	1 (ref)	1.26(0.99-1.60)	1.25(0.97-1.59)	1.30(1.01-1.68)	0.05	
<b>Alcohol consumption</b>							
Nondrinker	1010/3729	1 (ref)	1.13(0.91-1.40)	1.19(0.96-1.48)	1.25(1.01-1.55)	0.04	0.88
Drinker	1054/3054	1 (ref)	1.19(0.95-1.49)	1.19(0.95-1.48)	1.23(0.97-1.56)	0.11	
<b>Healthy diet score</b>							
<Median	935/3025	1 (ref)	1.15(0.93-1.43)	1.13(0.90-1.42)	1.22(0.96-1.54)	0.12	0.88
≥Median	1129/3758	1 (ref)	1.17(0.93-1.46)	1.24(0.99-1.54)	1.28(1.03-1.59)	0.03	
<b>Healthy lifestyle score</b>							
<Median	599/1759	1 (ref)	1.29(0.97-1.70)	1.24(0.93-1.66)	1.17(0.87-1.59)	0.29	0.68

≥Median                      1465/5024      1 (ref)      1.10(0.91-1.33)      1.16(0.96-1.39)      1.24(1.03-1.50)      0.02

<sup>a</sup>Q, quartile; OR, odds ratio; CI, confidence interval; Multivariable-adjusted was adjusted for age, sex, BMI (<18.5, 18.5-23.9, 24-27.9, ≥28, in kg/m<sup>2</sup>), smoking (never, past smokers with <25 pack-years or ≥25 pack-years, or current smokers with <25 pack-years or ≥25 pack-years), alcohol consumption (never, ≤25 mL for men and ≤15 mL for women, or >25 mL for men and >15 mL for women), household annual income (yuan), physical activity (quartile), vitamin supplement use (yes or no), family history of colorectal cancer (yes or no), total energy intake (quartile), and healthy diet score (quartile).

---



**Table S7 Multivariable-adjusted ORs (95% CIs) of dietary nutrient with risk of colorectal polyps**

	Quartiles of dietary nutrient				<i>p</i> trend
	Q1	Q2	Q3	Q4	
Dietary cholesterol (mg)	<111.4	111.5-197.7	197.8-351.0	>351.1	
Cases/n	451/1695	494/1696	555/1696	564/1696	
Multivariable-adjusted model	1 (ref)	1.11 (0.94-1.32)	1.24 (1.04-1.49)	1.21 (0.99-1.47)	0.04

Multivariable-adjusted model was adjusted age, sex, BMI (<18.5, 18.5-23.9, 24-27.9, >28, in kg/m<sup>2</sup>), smoking (never, past smokers with <25 pack-years or ≥25 pack-years, current smokers with <25 pack-years or ≥25 pack-years), alcohol consumption (never, ≤25 ml for men and ≤ 15 ml for women, >25 ml for men and >15 ml for women), household annual income (yuan), physical activity (quartile), vitamin supplement use (yes or no), family history of colorectal cancer (yes or no),total energy intake (quartile), dietary fiber intake(quartile), dietary fat intake(quartile), dietary protein intake(quartile).

**Table S8 Multivariable-adjusted ORs (95% CIs) of egg consumption (per 50 g · 2000 kcal<sup>-1</sup> · d<sup>-1</sup>) with the prevalence of colorectal polyps in the LP3C study**

	Egg consumption (per 50 g · 2000 kcal <sup>-1</sup> · d <sup>-1</sup> )	P-value
Model 1 <sup>a</sup>	1.08 (0.99-1.19)	0.08
Model 2 <sup>b</sup>	1.08 (0.99-1.18)	0.10
Model 3 <sup>c</sup>	1.08 (1.00-1.20)	0.06
Model 4 <sup>d</sup>	1.09 (1.00-1.20)	0.06
Model 5 <sup>e</sup>	1.11 (1.01-1.21)	0.04

<sup>a</sup> Model 1 was adjusted for age and sex; <sup>b</sup> Model 2 was adjusted for age, sex and household annual income (yuan); <sup>c</sup> Model 3 was adjusted for age, sex, household annual income (yuan), smoking (never, past smokers with <25 pack-years or ≥25 pack-years, current smokers with <25 pack-years or ≥25 pack-years), alcohol consumption (never, ≤25 mL for men and ≤ 15 mL for women, >25 mL for men and >15 mL for women), physical activity (quartile), vitamin supplement use (yes or no), BMI (<18.5, 18.5-23.9, 24-27.9, ≥28, in kg/m<sup>2</sup>) and family history of colorectal cancer (yes or no); <sup>d</sup> Model 4: Model 3 + total energy intake (quartile), intake of fruits (quartile), fresh vegetables (quartile), beans (quartile), total dairy products (quartile), unprocessed red meat (quartile), processed red meat (quartile), seafoods (quartile), and poultry (quartile); <sup>e</sup> Model 5: Model 3 + total energy intake (quartile), and healthy diet score (quartile).