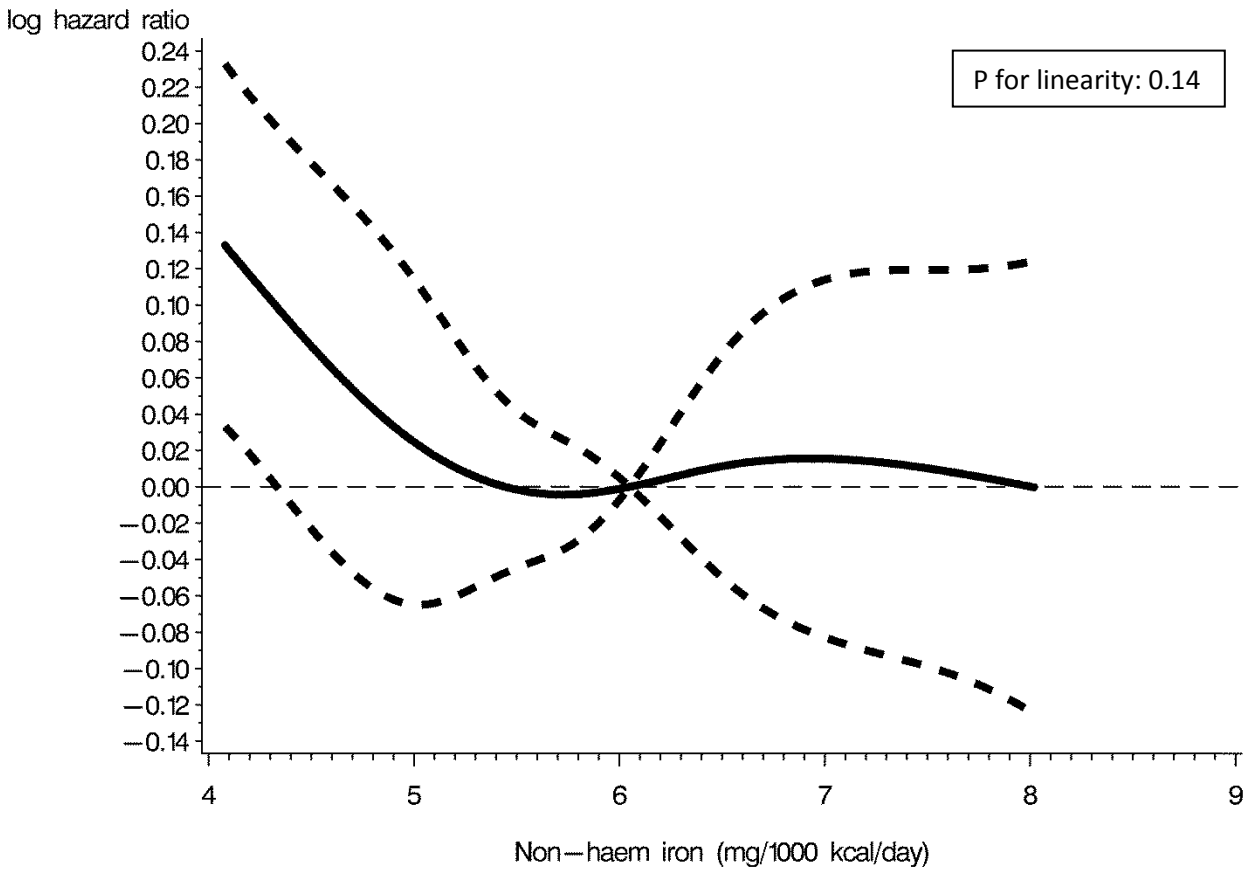
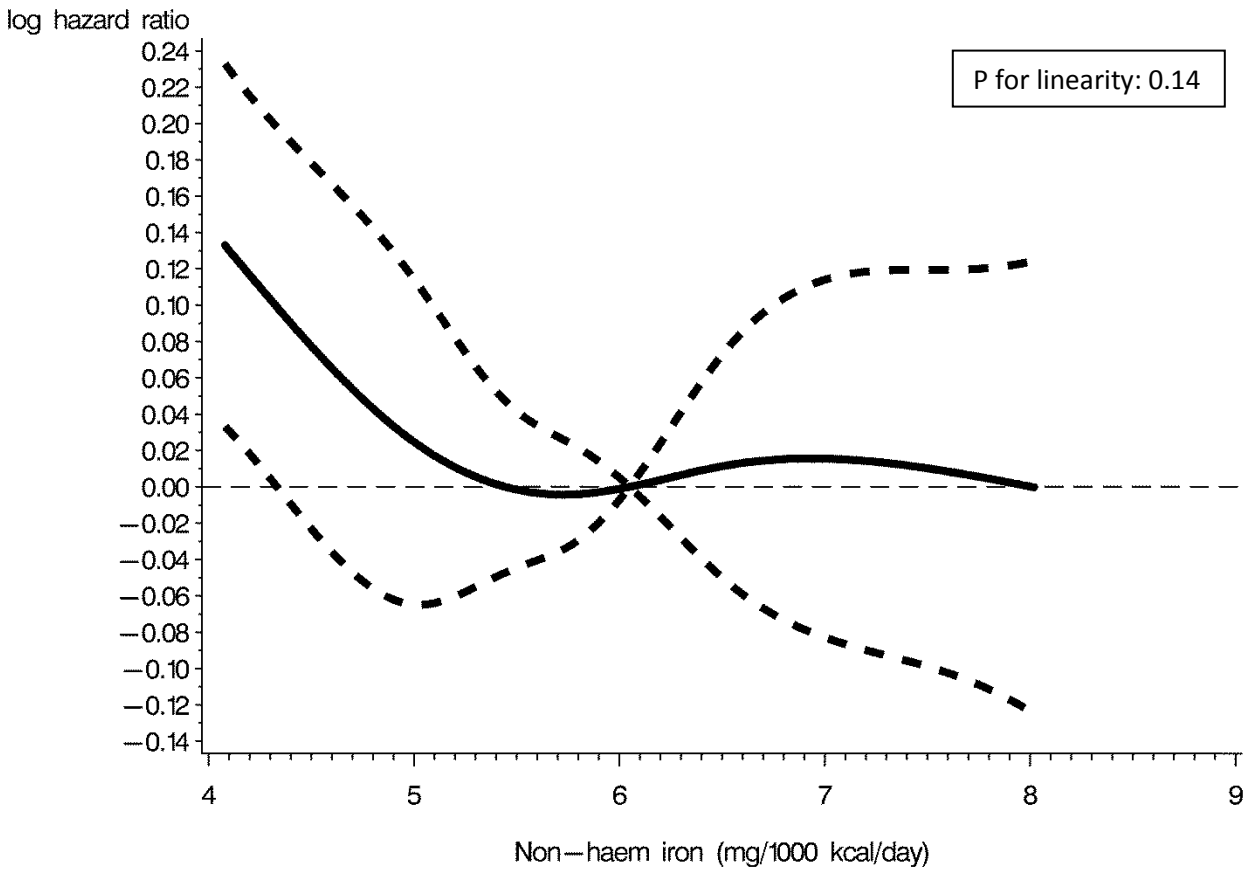


Online Supplementary Materials. Figure 1: Restricted cubic spline analysis of the association between haem iron intake and the risk of lung cancer among EPIC participants; knots at the 5th, 25th, 75th and 95th percentiles of haem iron intake.



Online Supplementary Materials. Fig 2: Restricted cubic spline analysis of the association between non-haem iron intake and the risk of lung cancer among EPIC participants; knots at the 5th, 25th, 75th and 95th percentiles of non-haem iron intake.



Online Supplementary Materials. Fig 2: Restricted cubic spline analysis of the association between non-haem iron intake and the risk of lung cancer among EPIC participants; knots at the 5th, 25th, 75th and 95th percentiles of non-haem iron intake.

Online Supplementary Materials. Supplementary Table 1. Hazard ratios (HRs) and 95% CIs for lung cancer risk by baseline total iron, haem iron and non-haem iron intakes in the EPIC study, by sex

		Q1	Q2	Q3	Q4	Q5	P for trend	HR, 95% CI per ~1 SD *
Men (cases = 1957)								
Haem iron								
(mg/1000kcal)	n(cases)	230	395	406	422	504		
	Model 1	1.0 (ref)	1.25 (1.05 - 1.49)	1.20 (1.01 - 1.44)	1.18 (0.99 - 1.43)	1.38 (1.15 - 1.65)	0.003	1.06 (1.01 - 1.10)
	Model 2	1.0 (ref)	1.24 (1.04 - 1.48)	1.18 (0.99 - 1.42)	1.16 (0.96 - 1.39)	1.32 (1.10 - 1.59)	0.017	1.04 (1.00 - 1.09)
	Model 3	1.0 (ref)	1.21 (1.01 - 1.44)	1.10 (0.92 - 1.32)	1.06 (0.88 - 1.27)	1.17 (0.97 - 1.41)	0.40	1.01 (0.97 - 1.06)
Non-haem iron								
(mg/1000kcal)	n(cases)	532	426	348	335	316		
	Model 1	1.0 (ref)	0.77 (0.67 - 0.87)	0.64 (0.56 - 0.74)	0.66 (0.56 - 0.76)	0.62 (0.51 - 0.74)	<0.0001	0.85 (0.80 - 0.90)
	Model 2	1.0 (ref)	0.79 (0.69 - 0.90)	0.69 (0.60 - 0.80)	0.71 (0.61 - 0.83)	0.68 (0.56 - 0.81)	<0.0001	0.88 (0.83 - 0.93)
	Model 3	1.0 (ref)	0.87 (0.76 - 1.00)	0.79 (0.68 - 0.92)	0.83 (0.71 - 0.97)	0.79 (0.65 - 0.95)	0.0008	0.93 (0.88 - 0.99)
Total iron								
(mg/1000 kcal)	n (cases)	478	414	384	330	351		
	Model 1	1.0 (ref)	0.80 (0.70 - 0.92)	0.73 (0.64 - 0.85)	0.68 (0.58 - 0.80)	0.70 (0.59 - 0.84)	<0.0001	0.89 (0.84 - 0.94)
	Model 2	1.0 (ref)	0.83 (0.72 - 0.95)	0.78 (0.67 - 0.90)	0.73 (0.63 - 0.86)	0.76 (0.64 - 0.91)	0.0005	0.91 (0.86 - 0.97)
	Model 3	1.0 (ref)	0.90 (0.79 - 1.04)	0.86 (0.75 - 1.00)	0.83 (0.71 - 0.97)	0.84 (0.70 - 1.00)	0.037	0.95 (0.89 - 1.00)
Women (cases = 1774)								
Haem iron								
(mg/1000kcal)	n(cases)	207	287	401	453	426		
	Model 1	1.0 (ref)	0.92 (0.76 - 1.11)	1.16 (0.97 - 1.39)	1.24 (1.03 - 1.48)	1.23 (1.03 - 1.48)	0.0007	1.08 (1.04 - 1.13)
	Model 2	1.0 (ref)	0.91 (0.75 - 1.10)	1.14 (0.95 - 1.37)	1.21 (1.01 - 1.45)	1.20 (1.01 - 1.45)	0.027	1.08 (1.03 - 1.13)
	Model 3	1.0 (ref)	0.92 (0.76 - 1.11)	1.15 (0.96 - 1.39)	1.19 (0.99 - 1.43)	1.16 (0.96 - 1.40)	0.0261	1.06 (1.01 - 1.11)
Non-haem iron								
(mg/1000kcal)	n(cases)	560	396	323	284	211		
	Model 1	1.0 (ref)	0.89 (0.78 - 1.02)	0.87 (0.76 - 1.01)	0.89 (0.77 - 1.04)	0.88 (0.73 - 1.05)	0.11	0.93 (0.88 - 0.99)
	Model 2	1.0 (ref)	0.92 (0.81 - 1.06)	0.93 (0.80 - 1.08)	0.96 (0.82 - 1.13)	0.96 (0.80 - 1.16)	0.69	0.96 (0.90 - 1.03)
	Model 3	1.0 (ref)	0.98 (0.86 - 1.13)	1.01 (0.87 - 1.17)	1.03 (0.88 - 1.21)	0.98 (0.81 - 1.19)	0.88	0.98 (0.93 - 1.05)
Total iron (mg/1000 kcal)								
	n (cases)	504	401	340	289	240		
	Model 1	1.0 (ref)	0.92 (0.81 - 1.06)	0.90 (0.78 - 1.04)	0.87 (0.75 - 1.02)	0.95 (0.80 - 1.13)	0.31	0.96 (0.91 - 1.02)
	Model 2	1.0 (ref)	0.95 (0.83 - 1.09)	0.94 (0.81 - 1.09)	0.93 (0.80 - 1.09)	1.03 (0.86 - 1.23)	0.99	0.99 (0.94 - 1.06)

Model 3	1.0 (ref)	1.01 (0.88 - 1.16)	1.01 (0.88 - 1.16)	0.99 (0.85 - 1.16)	1.04 (0.87 - 1.24)	0.73	1.01 (0.95 - 1.07)
Model 1: adjusted for total energy; stratified by age (1 year), center, and smoking status (current, former, never); Model 2: additionally adjusted for BMI (< 18.5 kg/m ² , 18.5-24.9 kg/m ² , 25-29.9 kg/m ² , >30 kg/m ²); education (none/primary school, technical/professional, secondary, longer education, or missing), height (cm), physical activity (Cambridge index categories), fat (g/1000kcal); Model 3: additionally adjusted for time since quitting smoking (years) and number of cigarettes per day.							
* approximately 1 SD = 0.3 for haem iron (mg/1000kcal); 1.3 for total iron (g/1000kcal) and 1.2 for non-haem iron (g/1000 kcal)							

Supplementary Table 2. Hazard ratios (HRs) for lung cancer by baseline haem iron, non-haem, and total iron intakes, by smoking status, in the EPIC study: complete case analysis

	Never smoker	Former smoker	Current smoker
	HR, 95% CI per 1 SD *	HR, 95% CI per 1 SD *	HR, 95% CI per 1 SD *
n cases	n =335	n =889	n =2507
Haem iron (mg/1000kcal)			
Model 1	0.96 (0.86 - 1.08)	1.07 (1.00 - 1.14)	1.08 (1.04 - 1.12)
Model 2	0.96 (0.86 - 1.07)	1.06 (0.99 - 1.14)	1.07 (1.03 - 1.11)
Model 3	0.96 (0.86 - 1.08)	1.03 (0.94 - 1.12)	1.07 (1.03 - 1.10)
<i>P</i> for interaction †	0.209		
Non-haem iron (mg/1000kcal)			
Model 1	1.04 (0.92 - 1.18)	0.83 (0.77 - 0.91)	0.89 (0.84 - 0.94)
Model 2	1.07 (0.94 - 1.21)	0.86 (0.79 - 0.94)	0.92 (0.88 - 0.97)
Model 3	1.07 (0.94 - 1.21)	0.89 (0.80 - 0.98)	1.00 (0.95 - 1.05)
<i>P</i> for interaction †	0.049		
Total iron (mg/1000 kcal)			
Model 1	1.03 (0.91 - 1.16)	0.87 (0.80 - 0.94)	0.93 (0.89 - 0.98)
Model 2	1.05 (0.93 - 1.18)	0.89 (0.82 - 0.97)	0.96 (0.91 - 1.01)
Model 3	1.05 (0.93 - 1.18)	0.90 (0.82 - 1.00)	1.02 (0.97 - 1.08)
<i>P</i> for interaction †	0.069		

Model 1: adjusted for total energy; stratified by sex, age (1 year), centre, and smoking status (current, former, never)

Model 2: additionally adjusted for BMI (< 18.5 kg/m², 18.5-24.9 kg/m², 25-29.9 kg/m², >30 kg/m²); education (none/primary school, technical/professional, secondary, longer education, or missing), height (cm), physical activity (Cambridge index categories), fat (g/1000kcal)

Model 3: additionally adjusted for time since quitting smoking (years) and number of cigarettes per day

* approximately 1 SD = 0.3 for haem iron (mg/1000kcal); 1.3 for total iron (g/1000kcal) and 1.2 for non-haem iron (g/1000 kcal)

† Test for interaction conducted using Model 3