

Table 2.8.1 Cohort studies: Red meat and cancer of the oesophagus (web only)

Reference, location enrolment/follow-up period, study design	Population size, description, exposure assessment method	Organ site	Exposure category or level	Exposed cases/deaths	Risk estimate (95% CI)	Covariates controlled	
	A risk factor questionnaire sent six months later to a subcohort of 303 165 persons elicited detailed information on meat intake and cooking preferences.	Oesophagus Squamous cell carcinoma: (ICD-O-3 C15.0–C15.9) – (histology codes 8050–8076)	Heme Iron, Quintile median ($\mu\text{g}/1000\text{kcal}$)				Same as above
Q1 (48.8)			17	1			
Q2 (102.9)			25	1.38 (0.74–2.58)			
Q3 (154.2)			31	1.6 (0.87–2.96)			
Q4 (218.7)			27	1.33 (0.7–2.53)			
Q5 (347.7)			28	1.25 (0.64–2.42)			
All – Heme Iron – Continuous (per 100 $\mu\text{g}/1000\text{kcal}$)			NR	1.02 (0.89–1.17)			
Trend-test p-value: 0.944							
		Oesophagus Adenocarcinoma: (ICD-O-3 C15.0–C15.9); (histology codes 8140, 8141, 8190–8231, 8260–8263, 8310, 8430, 8480–8490, 8560, 8570–8572)	Heme Iron, Quintile median ($\mu\text{g}/1000\text{kcal}$)				Same as above
Q1 (48.8)			39	1			
Q2 (102.9)			55	1.12 (0.74–1.7)			
Q3 (154.2)			81	1.4 (0.94–2.07)			
Q4 (218.7)			88	1.32 (0.89–1.97)			
Q5 (347.7)			114	1.47 (0.99–2.2)			
All – Heme Iron – Continuous (per 100 $\mu\text{g}/1000\text{kcal}$)	NR		1.04 (0.96–1.12)				
Trend-test p-value: 0.063							

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Keszei et al. (2012) Netherlands 1986–2002	120 852 were recruited and finally, 3923 subcohort members were used in the analysis (Case-cohort design); The sample was selected from 204 municipal population registries throughout the Netherlands by gender-stratified random sampling. Exposure assessment method: Questionnaire; FFQ	Oesophagus: oesophagus carcinomas included squamous cell carcinomas (ESCC) C15, histology codes: 8050–8076, and adenocarcinomas (EAC) C15, histology codes: 8140, 8141, 8190–8231, 8260–8263, 8310, 8430, 8480–8490, 8560, and 8570–8572.	Risk by quintile			Adjusted for age (years), smoking status (current versus non-current smoker), years of cigarette smoking, number of cigarettes smoked per day, total energy intake (kjoules/day), body mass index (categories: < 20, 20–24.9, 25–29.9, and ≥ 30 kg/m ²), alcohol intake (grams/day), vegetable intake (grams/day), fruit intake (grams/day), levels of education (four categories), and non-occupational physical activity (four categories). For EAC, models are additionally adjusted for use of lower oesophageal sphincter relaxing medications.	
			ESCC, men Q1	6	1		
			Q2	12	1.86 (0.65–5.33)		
			Q3	13	1.83 (0.64–5.28)		
			Q4	11	2.15 (0.76–6.11)		
			Q5	17	2.66 (0.94–7.48)		
			Trend-test p-value: 0.06				
			EAC				Same as above
			men, Q1	21	1		
			Q2	23	1.06 (0.56–2.03)		
Q3	22	0.98 (0.52–1.85)					
Q4	32	1.37 (0.76–2.47)					
Q5	16	0.57 (0.28–1.19)					
Trend-test p-value: 0.2							

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Jakszyn et al. (2013) the European Prospective Investigation into Cancer and Nutrition (EPIC) 1992–11 years	472 538 participants. A total of 521 457 subjects (153,447men), aged mostly 35–70 years in 23 centres from 10 European countries Exposure assessment method: Questionnaire; Models for the continuous variables of meat (unprocessed red and processed)(for 25 g/2,000 kcal)	ESCC	women, T1	16	1	Same as above		
			T2	15	0.84 (0.39–1.84)			
			T3	17	0.87 (0.42–1.79)			
			Trend-test p-value: 0.73					
			EAC	women, T1	9		1	Same as above
				T2	9		0.74 (0.29–1.94)	
		T3		13	1.09 (0.44–2.75)			
		Trend-test p-value: 0.76						
		Oesophagus Adenocarcinoma: (ICD10)	Red meat (25 g/200kcal)	Tertile 1	36	1	Sex, Smoking status (never, former, smoker and unknown), Time since quitting smoking (y), Number of cigarettes (cig/d), Body mass index (BMI)(kg/m2), Total energy intake(kcal/day), Fresh fruits (g/2,000 kcal), Vegetables intake (g/2,000 kcal), Educational levels	
				Tertile 2	40	0.91 (0.57–1.47)		
				Tertile 3	61	1 (0.6–1.66)		
				Trend-test p-value: 0.911				
Oesophagus Adenocarcinoma: (ICD10)	Heme Iron (mg/2000kcal)			Tertile 1	43	1		Same as above
				Tertile 2	34	0.96 (0.6–1.53)		
		Tertile 3	59	1.67 (1.05–2.68)				
Trend-test p-value: 0.048								

References

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