



**RED MEAT AND  
PROCESSED MEAT**

VOLUME 114

This publication represents the views and expert opinions of an IARC Working Group on the Evaluation of Carcinogenic Risks to Humans, which met in Lyon, 6–13 October 2015

LYON, FRANCE - 2018

**IARC MONOGRAPHS  
ON THE EVALUATION  
OF CARCINOGENIC RISKS  
TO HUMANS**

**Table 2.7.2 Cohort studies: Processed meat and cancer of the lung (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	
Breslow et al. (2000) US Initial interview in 1987 and matched to mortality data through to 31 December 1995	20 195 individuals; Households eligible for the National Health Interview Survey in 1987 <b>Exposure assessment method:</b> Questionnaire	Lung	Processed meats (servings/week)			Age, gender, smoking duration (years), packs per day smoked	
			0–0.5	54	1		
			0.5–1.2	36	0.8 (0.5–1.3)		
			1.2–2.9	34	1 (0.6–1.6)		
			> 3.0	34	0.8 (0.5–1.4)		
			Trend-test p-value: 0.721				
Tasevska et al. (2009) US 1995–2003	278 380 men and 189 596 women; NIH-AARP Diet and Health Study: men and women aged 50–71 y from 8 US states <b>Exposure assessment method:</b> Questionnaire; Self-administered semiquantitative 124-item FFQ. Meat-cooking module in a second FFQ 6 months after baseline	Lung	Processed meat (g/1000 kcal)			BMI, Smoking, race, education, physical activity, intake of alcohol, energy-adjusted vegetable and fruit servings, saturated fat	
			Men:				
			Q1: ≤ 4.0	NR	1		
			Q2: > 4.0 ≤ 7.3	NR	1.17 (1.05–1.31)		
			Q3: < 7.3 ≤ 11.4	NR	1.13 (1.01–1.26)		
		Q4: > 11.4 ≤ 18.2	NR	1.16 (1.04–1.29)			
		Q5: > 18.2	NR	1.23 (1.1–1.37)			
					Trend-test p-value: 0.003		
		Lung	Processed meat (g/1000 kcal)			Same as above	
			Women:				
Q1: ≤ 2.3	NR		1				
Q2: > 2.3 ≤ 4.5	NR		0.89 (0.77–1.03)				
Q3: < 4.5 ≤ 7.3	NR		1.05 (0.91–1.2)				
Q4: < 7.3 ≤ 12.5	NR	0.95 (0.82–1.1)					
Q5: > 12.5	NR	1 (0.87–1.15)					
			Trend-test p-value: 0.58				
Lung	Processed meat (g/1000 kcal)	Men:			Same as above		
			Never smokers: 90th percentile	137		1.06 (0.69–1.64)	

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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
			compared to 10th percentile Trend-test p-value: 0.79			
		Lung	Red meat (g/1000 kcal) Women: Never smokers: 90th percentile compared to 10th percentile Trend-test p-value: 0.55	166	0.89 (0.62–1.29)	Same as above
Linseisen et al. (2011) Europe enrollment early 1900s	142 602 men, 335 825 women; EPIC: men and women age 25–70 in 10 European countries, <b>Exposure assessment method:</b> Questionnaire; self-administered FFQ, 300–350 items. 24-hour recalls or 7-day diaries in subcohorts	Lung: ICD-O C34	Continuous model per 50 g: processed meat	NR	1.13 (0.95–1.34)	Age, sex, centre, smoking, body weight, height, energy intake, alcohol, fruits and vegetables, physical activity, education
Tasevska et al. (2011) USA 1993–2006	48 229 men and 51 350 women; PLCO Cancer Screening Trial: volunteers aged 55–74 years <b>Exposure assessment method:</b> Questionnaire; Self-administered semiquantitative 124-item FFQ	Lung: 34.0–34.9	Men processed meat g/1000 kcal, 2 vs 1 Same 3 vs 1 Same 4 vs 1 Same 5 vs 1 Women processed meat g/1000 kcal, 2 vs 1 Same 3 vs 1 Same 4 vs 1 Same 5 vs 1	NR NR NR NR NR NR NR NR	0.85 (0.62–1.18) 1.04 (0.76–1.41) 0.97 (0.7–1.33) 1.12 (0.83–1.53) 1.22 (0.86–1.73) 1.09 (0.76–1.57) 0.83 (0.56–1.22) 0.98 (0.68–1.41)	Age, detailed smoking history, race, education, total energy intake, fruits and vegetables, fats, alcohol

## References

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