

teristic of COPD in the bronchial tree and pulmonary parenchyma more frequently than do nonsmokers.

9. Respiratory infections are more prevalent and severe among cigarette smokers, particularly heavy smokers, than among nonsmokers.

10. Cigarette smokers appear to develop postoperative pulmonary complications more frequently than nonsmokers.

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BRONCHOPULMONARY

APPENDIX TABLES

TABLE A2.—*Smoking and chronic obstructive pulmonary disease symptoms<sup>1</sup>—percent prevalence*

(Numbers in parentheses represent total number of individuals in particular smoking group)

SM = Smokers. NS = Nonsmokers. EX = Ex-smokers.

Author, year, country, reference	Number and type of population	Cough	Sputum production	Breathlessness or dyspnea	Chest illnesses	Other	Comments
Short et al., 1939, U.S.A. (206).	2,031 male and female insurance policy holders.	NS ..... 1.6 (496) SM ..... 6.4 (1,293)			NS ..... 10.9 SM ..... 18.0		Chest illnesses as represented by frequent colds.
Oswald and Medvei, 1955, England (178).	3,602 male and 2,242 female clerical workers 40-65 years of age.					<i>Chronic Bronchitis</i> <i>Males</i> NS ..... 15.8 (474) SM ..... 18.4 (1,940) <i>Females</i> NS ..... 12.1 (619) SM ..... 18.8 (579)	Chronic bronchitis defined by habitual cough and sputum production.
Phillips et al., 1956, U.S.A. (185).	1,274 male factory workers without overt pulmonary disease or heart failure.	NS ..... 2.0 (451) SM ..... 51.0 (823)					
Higgins 1957, England (112).	301 male and 280 female rural dwellers 25-74 years of age.		<i>Cough and sputum</i> <i>Males</i> NS ..... 7.1 (28) SM ..... 53.9 (222) <i>Females</i> NS ..... 4.5 (176) SM ..... 17.2 (93)	<i>Males</i> NS ..... 7.1 SM ..... 19.8 <i>Females</i> NS ..... 21.6 SM ..... 9.7	<i>Males</i> NS ..... 3.6 SM ..... 17.1 <i>Females</i> NS ..... 9.7 SM ..... 15.1	<i>Chronic Bronchitis</i> <i>Males</i> NS ..... 3.6 SM ..... 9.9 <i>Females</i> NS ..... 3.4 SM ..... 8.6	

TABLE A2.—*Smoking and chronic obstructive pulmonary disease symptoms<sup>1</sup>—percent prevalence (cont.)*  
 (Numbers in parentheses represent total number of individuals in particular smoking group)  
 SM = Smokers. NS = Nonsmokers. EX = Ex-smokers.

Author, year, country, reference	Number and type of population	Cough	Sputum production	Breathlessness or dyspnea	Chest illnesses	Other	Comments
Higgins and Cochran, 1958, England (114).	94 males and 92 females randomly chosen (members of an agricultural community.)		<i>Females</i>	<i>Males</i>	<i>Males</i>	<i>Chronic bronchitis</i>	
			<i>Cough and sputum</i>	NS	NS	<i>Males</i>	
			NS	SM	SM	NS	<i>Males</i>
			SM	NS	NS	SM	<i>Females</i>
			NS	SM	SM	NS	<i>Females</i>
			SM	SM	SM	SM	<i>Females</i>
Edwards et al., 1959, England (74).	1,737 male out- patients on lists of general prac- titioners >60 years of age.					<i>Chronic bronchitis</i>	
						NS	16.6 (151)
						Cigarettes	29.7 (779)
						1-9	23.4 (235)
						10-19	31.2 (369)
Flick and Paton, 1959, U.S.A. (86).	222 male patients not suffering from overt cardio- pulmonary disease, 20-90 years of age.	NS	NS		NS		
		SM	SM		SM		
Higgins et al., 1959, England (116).	776 males in various occupations 25-64 years of age.		<i>Cough and sputum</i>			<i>Chronic bronchitis</i>	
			SM	NS	NS	SM	
			NS	SM	SM	NS	

TABLE A2.—*Smoking and chronic obstructive pulmonary disease symptoms*<sup>1</sup>—percent prevalence (cont.)

(Numbers in parentheses represent total number of individuals in particular smoking group)

SM = Smokers. NS = Nonsmokers. EX = Ex-smokers.

Author, year, country, reference	Number and type of population	Cough	Sputum production	Breathlessness or dyspnea	Chest illnesses	Other	Comments
Higgins, 1959, England (118).	393 males in various occupations 55-64 years of age.		<i>Cough and sputum</i>			<i>Chronic bronchitis</i>	Chronic bronchitis defined as persistent sputum and at least 1 chest illness in past 3 years. Tobacco gram equivalents are: 1 cigarette = 1 gram, 1 cigar = 2-5 grams, 1 pipe = 10-25 grams.
			NS ..... 6.1 (33)	NS ..... 18.2	NS ..... 3.0	NS ..... 0.0	
		1-14 g./day 9.7 (173)	1-14 g./day 30.1	1-14 g./day 23.7	1-14 g./day 13.9		
		>15 ..... 42.3 (142)	>15 ..... 33.8	>15 ..... 23.9	>15 ..... 17.6		
Liebeschuetz, 1959, England (156).	147 male soldiers 20-30 years of age.	NS ..... 0.0 (52)					
		SM ..... 13.0 (83)					
Ashford et al., 1961, England (11).	4,014 male coal workers.					<i>Respiratory symptoms</i>	Respiratory symptoms—"bronchitis and/or asthma". No dose relationship found.
						NS ..... 10.3 (677)	
						EX ..... 19.5 (123)	
						Cigarettes 21.1 (1,504)	
						Pipe only 35.1 (202)	
				Cigarettes and pipe 37.1 (90)			
				All SM .. 21.7 (3,214)			

TABLE A2.—*Smoking and chronic obstructive pulmonary disease symptoms<sup>1</sup>—percent prevalence (cont.)*  
 (Numbers in parentheses represent total number of individuals in particular smoking group)  
 SM = Smokers. NS = Nonsmokers. EX = Ex-smokers.

Author, year, country, reference	Number and type of population	Cough	Sputum production	Breathlessness or dyspnea	Chest illnesses	Other	Comments
Bower, 1961, U.S.A. (41).	95 male and 77 female bank employees 40-70 years of age.	NS . . . . . 4.1 (49)	NS . . . . . 20.4		NS . . . . . 34.7		Chest illness—chest colds during each of last 2 winters.
		SM . . . . . 27.6 (76)	SM . . . . . 34.2		SM . . . . . 38.2		
		Pipe, cigar . . (13)	Pipe, cigar 15.4		Pipe, cigar 53.9		
Fletcher and Tinker, 1961, England (85).	363 male London transport employees 40-50 years of age.	NS . . . . . (30)	NS . . . . . 8.7	NS . . . . .	NS . . . . . 4.3		
		1-14 g./day 15.5 (156)	1-14 g./day .29.9	1-14 g./day . . 8.2	1-14 g./day 8.2		
		>15 . . . . . 27.3 (116)	>15 . . . . . 36.9	>15 . . . . . 8.6	>15 . . . . . 10.7		
Read and Selby, 1961, Australia (191).	170 male and 132 female individuals interviewed in an out-patient clinic (not all patients).	<i>Males</i>					
		NS . . . . . 4.4					
		SM . . . . . 23.1					
		EX . . . . . 21.2					
		<i>Females</i>					
		NS . . . . . 4.9					
		SM . . . . . 18.6					
Balchum et al., 1962, U.S.A. (24).	1,451 male light industry employees in California.	NS . . . . . 10.2 (253)	NS . . . . . 11.0	NS . . . . . 9.8			
		SM . . . . . 23.3 (1,198)	SM . . . . . 30.4	SM . . . . . 14.5			
		<1 pack-year . . . . . 11.0 (257)	<1 pack-year . . . . . 12.0	<1 pack-year . . . . . 10.0			
		1-9 . . . . . 17.0 (263)	1-9 . . . . . 18.0	1-9 . . . . . 12.0			
		10-19 . . . . . 25.0 (303)	10-19 . . . . . 32.0	10-19 . . . . . 11.0			
		20-29 . . . . . 21.0 (236)	20-29 . . . . . 34.0	20-29 . . . . . 18.0			
		30-39 . . . . . 28.0 (144)	30-39 . . . . . 40.0	30-39 . . . . . 21.0			
		40-49 . . . . . 39.0 (92)	40-49 . . . . . 37.0	40-49 . . . . . 13.0			
		50-59 . . . . . 34.0 (29)	50-59 . . . . . 45.0	50-59 . . . . . 38.0			
		>60 . . . . . 50.0 (24)	>60 . . . . . 62.0	>60 . . . . . 29.0			

TABLE A2.—Smoking and chronic obstructive pulmonary disease symptoms<sup>1</sup>—percent prevalence (cont.)

(Numbers in parentheses represent total number of individuals in particular smoking group)

SM = Smokers.

NS = Nonsmokers.

EX = Ex-smokers.

Author, year, country, reference	Number and type of population	Cough	Sputum production	Breathlessness or dyspnea	Chest illnesses	Other	Comments
Boucot et al., 1962, U.S.A. (86).	6,137 males enrolling in pulmonary neoplasm project.	NS ..... 13.0 (806) SM ..... 31.5 (5,331)					
Ferris et al., 1962, U.S.A. (82).	90 male and 71 female flax mill-workers.					<i>Chronic Nonspecific Respiratory Disease</i> Males Females NS .15.0(20) 10.0(60) EX .12.5(16) .. 1-20 27.3(22) .. >20 53.1(32) 50.0 (4)	
Ferris and Anderson, 1962, U.S.A. (81).	542 male and 625 female residents of New Hampshire town chosen by random sampling of census.					<i>Chronic bronchitis</i> Males NS ..... 13.8 (125) EX ..... 11.9 (77) Cigarettes 40.3 (340) 1-10 .... 29.8 11-20 .... 34.2 21-30 .... 42.3 31-40 .... 61.1 >41 ..... 75.3 Females NS ..... 9.4 (378) EX ..... 10.8 (87) Cigarettes 19.8 (208) 1-10 .... 13.1 11-20 .... 22.2 21-30 ..... .. 31-40 .... 27.3 >41 ..... ..	Age-specific rates.

TABLE A2.—*Smoking and chronic obstructive pulmonary disease symptoms*<sup>1</sup>—percent prevalence (cont.)

(Numbers in parentheses represent total number of individuals in particular smoking group)

SM = Smokers. NS = Nonsmokers. EX = Ex-smokers.

Author, year, country, reference	Number and type of population	Cough	Sputum production	Breathlessness or dyspnea	Chest illnesses	Other	Comments
Goldsmith et al., 1962, U.S.A. (95).	3,381 active or retired longshoremen.					<i>Respiratory conditions</i> NS ..... 31.4 (744) Moderate/heavy smokers 43.0 (1,238)	
Coates et al., 1965, U.S.A. (58).	1,342 male and 242 female Detroit post office employees.	NS ..... 11.2 (747) 1-14 ... 12.7 (266) (not sig.) 15-24 ... 27.5 (402) (p<0.001) >25 ... 36.4 (170) (p<0.001)	NS ... 14.7 1-14 ... 28.2 (p<0.001) 15-24 ... 30.7 (p<0.001) >25 ... 34.1 (p<0.001)			<i>Cough and chronic phlegm</i> NS ..... 4.0 1-14 .... 5.3 (not sig.) 15-24 .... 17.2 (p<0.001) >25 ..... 25.3 (p<0.001)	Current smoking data.
Deane et al., 1965, U.S.A. (67).	508 telephone company workers.					<i>Persistent cough, phlegm, dyspnea</i> NS ..... 4.5 (200) Current cigarette smokers 15.9 (308)	NS includes ex-smokers, pipe, and cigar smokers.
Huhti, 1965, Finland (126).	653 male and 823 female residents of a Finnish communal region, 40-64 years of age.	<i>Males</i> NS ..... 4.1 (122) EX ..... 8.5 (141) 1-14 ..... 31.5 (108) 15-24 ..... 40.8 (191) >25 ..... 42.4 (85) <i>Females</i> NS ..... 4.5 (709) EX ..... 13.3 (30) 1-14 ..... 10.4 (77) 15-24 ..... 43.0 (6) >25 ..... (1)	<i>Males</i> NS ..... 10.7 EX ..... 17.7 1-14 ..... 38.0 15-24 ..... 42.9 >25 ..... 42.4 <i>Females</i> NS ..... 5.9 EX ..... 13.3 1-14 ..... 10.4 15-24 } ..... 57.0 >25 }	<i>Males</i> NS ..... 15.6 EX ..... 24.8 1-14 ..... 25.0 15-24 ..... 26.2 >25 ..... 31.8 <i>Females</i> NS ..... 29.2 EX ..... 33.3 1-14 ..... 14.3 15-24 } ..... 14.0 >25 }		<i>Chronic bronchitis</i> <i>Males</i> NS ..... 5.7 EX ..... 16.3 1-14 .... 38.0 15-24 .... 41.4 >25 ..... 40.0 <i>Females</i> NS ..... 4.5 EX ..... 13.3 1-14 .... 10.4 15-25 } ..... 57.0 >25 }	Ex-smokers represent those who have stopped smoking for more than 1 month. Dyspnea Grade II only.