

Table 6—Estimated Prevalence Rates * of Lung Cancer per 100,000 Males of Selected Ages and Various Cigarette Smoking Habits

	Number		Estimated Prevalence Rates Quantity Smoked Daily †			Relative Prevalence ‡	
	Lung Cancer	Control	Heavy **	All Quan- tities	None	Heavy	All Quan- tities
Patients aged 50-59 years							
1. Doll and Hill	276	275	94	42	7	13	6
2. Wynder and Graham	258	210	117	47	4	27	11
3. Sadowsky, Gilliam, and Cornfield	198	208	87	44	12	7	4
4. Present	213	213	102	46	6	17	7
Patients aged 60-69 years							
1. Doll and Hill	197	199	137	63	0	..	..
2. Wynder and Graham	187	160	138	70	5	29	15
3. Sadowsky, Gilliam, and Cornfield	76	71	44	71	5	9	4
4. Present	168	169	433	78	17	25	5

* Estimated according to the method of Cornfield.¹¹ Data for studies of Doll and Hill; Wynder and Graham; and Sadowsky, Gilliam, and Cornfield from the latter paper.¹²

† Quantity smoked daily, except for present study, is all forms of smoking expressed as cigarettes, with pipes and cigars converted to their equivalents in cigarettes as follows: 1. Doll and Hill—1 oz. of tobacco a week = 4 cigarettes a day; 2. Wynder and Graham—1 cigar = 5 cigarettes, 1 pipeful = 2½ cigarettes; and 3. Sadowsky, Gilliam, and Cornfield—1 cigar = 10 cigarettes, 1 oz. pipe tobacco = 20 cigarettes. 4. For present study, quantity smoked daily includes only cigarette smoking.

‡ Relative prevalence is the ratio: Heavy—rate among heavy smokers/rate among nonsmokers; all quantities—rate among smokers/rate among nonsmokers.

** Heavy smoking is defined as the following number of cigarettes or equivalents of cigarettes per day:—1. Doll and Hill—50 or more; 2. Wynder and Graham—35 or more; 3. Sadowsky, Gilliam, and Cornfield—41 or more; and 4. present study—40 or more.

of these criteria, the lung cancer patients smoked cigarettes to a greater extent than did the control group. Also, approximately two-fifths of the lung cancer patients stated that they had had a "cigarette cough" usually antedating the onset of their illness by many years; 120 said that they had had a cough for five years or more. The frequency of such "cigarette cough" was only about one-half as great among the control group and only 39 of the control patients indicated that their cough had lasted five years or more.

Significance of Findings on Cigarette Smoking

The data clearly show cigarette smoking to be more frequent and intense among lung cancer patients than among

the control group. Our data parallel that of other recent, well controlled studies; all indicate a positive correlation between cigarette smoking and lung cancer, a correlation which increases steadily with the amount of cigarette smoking. One can hardly escape the conclusion of Doll and Hill⁴ that "smoking is a factor and an important factor in the production of carcinoma of the lung," and the more recent conclusion of Doll,¹⁰ "The results amount, I believe, to proof that smoking is a cause of bronchial carcinoma."

The cigarette smoker or prospective cigarette smoker may wish to know how much his chances of developing lung cancer are increased by such smoking. Acknowledging that a correlation exists, one may still inquire how many times does cigarette smoking increase the