

sprays) and medical procedures (roentgen-ray examinations of chest), the occurrence of an epidemic of serious respiratory diseases (influenza and other conditions) introduced during this time, similar important and major environmental changes, thereby creating not only the possibility of a simultaneous causative action of various factors, but introducing also the potentiality of mere coincidence. Some of the extraneous agents, suspected to have been active in the production of the recent spectacular increase of pulmonary tumors, are closely related to or are identical with occupational factors with known carcinogenic qualities. Consequently a detailed analysis and discussion of the evidence available as to general environmental factors is not only of considerable importance for general reasons, but provides an appropriate background for the presentation of the neoplasms of the respiratory tissue of recognized occupational origin.

2. INCIDENCE OF PULMONARY NEOPLASMS

Before the turn of the century malignant tumors of the respiratory system, especially of the bronchi and pulmonary parenchyma, belonged to the rarer types of cancers. The statistical data available from this period confirm this statement.

Author	Years	Per Cent of Lung Cancers in Autopsies
Reinhard	1853-1876	0.057
Weller	1872-1898	0.040 (calculated from 382,671 autopsies reported by several authors)
Fuchs	1885	0.065
Feldner	1852-1879	0.62
	1880-1908	0.90

The incidence of lung cancer prior to 1900, in relation to the frequency of cancer in general, was stated by several investigators to have been approximately one per cent (Ewing; Kaufmann; Pässler; Probst; and Ask-Upmark). After this period there was at first a gradual increase in the frequency of these neoplasms, followed suddenly by a more rapid increase; the gradient becoming constantly steeper during the third decade of this century. The onset of this development varied in different countries and regions. It apparently has reached its peak in some areas [Riga, 1916 (Brandt)], while the increase still continues in others (Fischer). One of the characteristic features of this phenomenon is that it starts simultaneously in different cities, countries, and continents, and shows an increasing continuity over a period of more than thirty years (Peters). This development was not uniform in degree and intensity in the different localities. In Berlin, Hamburg, and Basel the increase was very slow and slight during the first twenty to thirty years of