

merely to some occupational groups, but to the great masses of people of all industrialized countries. Numerous investigators have incriminated these agents, containing frequently carcinogenic aromatic hydrocarbons, in the production and recent increase of respiratory malignancy (Probst; Katz; Berblinger; Schachter; Brandt; Staehelin; McCrae, Funk and Jackson; and Vorwaldt and Karr).

The respiratory exposure to chemical substances of this character may be the result of a general atmospheric pollution affecting the entire population, it may be connected with some special occupational activities or it may be related to the habit of tobacco smoking. In an appreciable number of people two or three of these sources exert a combined action upon the respiratory organs. In addition to such a direct action of substances containing aromatic hydrocarbons of potentially or suspected carcinogenic nature, a cutaneous or alimentary contact with these substances may result in an activation of genetic qualities, present in some persons, favoring the development of pulmonary malignancy.

Environmental Atmospheric Soot. The general pollution of the environmental air with tar and tarry substances originates from various sources; soot from coal or oil burning industrial or domestic furnaces; tar containing dust from tarred roads; and exhaust fumes from gasoline and Diesel engines. The contamination of the atmosphere with soot is by far the most prominent source of tar particles in the air. This factor is marked in densely populated and industrialized districts, particularly when the weather is apt to be foggy for extended periods, keeping the soot particles suspended in the lower strata of the atmosphere (DesVoeux; DuPlessis; and Editorial, *J.A.M.A.*). A fair conception of the amounts of soot involved under such conditions may be obtained from the following statements: "The average English family creates every year more than its own weight of smoke" (Des Voeux); "four hundred and five tons of deposit from the air were totalled within a year per square mile in Finsbury Park, London" (Campbell); and deposited matter per square decameter per annum (1923) (Kennaway) in grams:

<i>Location</i>	<i>Tarry Matter</i>	<i>Carbonaceous Matter Other Than Tar</i>	<i>Total Solids</i>
Meteorologic Office (London)	295	2,509	13,013
Newcastle-on-Tyne (Industry)	437	4,566	16,796
Rothamsted (Country)	—	668	3,438

In a discussion of the general significance of the smoke nuisance to the health of the population of Edinburgh and East Scotland, Langrishe expressed the opinion that there existed good reasons for believing that tarry matter contained in smoke was partly responsible for the increase of lung cancer in