

# CIGARETTES LINKED TO CANCER IN LUNGS

Study of 200 Male Sufferers  
Shows 95.5% Were Heavy  
Smokers 20 Years

By WILLIAM L. LAURENCE

Special to The New York Times

MEMPHIS, Tenn., Feb. 26—The possibility that the great increase of cigarette smoking during the past quarter of a century may be one of the many factors responsible for the great increase in the incidence of lung cancer in the human male in the corresponding period was discussed here today at the first national cancer conference held under the auspices of the American Cancer Society and the National Cancer Institute.

Statistics show, it was brought out at a panel discussion attended by many leaders in the field, that whereas twenty-five years ago cancer of the lung was very rare in human beings, with no great difference in the ratio of its occurrence as between men and women, it now ranks only second to stomach cancer in the incidence of its occurrence among men, with some evidence indicating that it may already rank first in its toll among male cancer victims.

Furthermore, the ratio of its occurrence among men as compared with women, has increased to from eight to one to as high as twenty-five to one, respectively, in the last twenty years.

Under a grant from the American Cancer Society, a study, the first of its kind, was made of the smoking habits of 200 male patients with lung cancer. The findings were compared with a study of the smoking habits of 500 male patients of the same age group who did not have lung cancer.

The studies were carried out under the direction of Prof. Evarts Graham of the Washington Uni-

versity School of Medicine, St. Louis, by Dr. Herbert C. Maier of New York City and Ernest L. Wynder, also of the Washington University School of Medicine.

The patients studied were of the age group between 40 and 80, since the average age at which cancer of the lung occurs is 52. The studies were made at various hospitals in St. Louis and New York City.

The studies were concentrated on two basic sets of facts—the period during which the patients smoked and the amount of the smoking, including cigars, pipes and cigarettes.

The data show, it was reported, that of the 200 patients with lung cancer, 95.5 per cent had smoked one package of cigarettes a day or more for at least twenty years, namely the period during which the incidence of lung cancer in men has so greatly increased. Of the 500 patients who were free from lung cancer, on the other hand, only 50 per cent smoked a package or more of cigarettes a day during the past twenty years.

The studies also revealed that of the 200 patients with lung cancer only one-half of 1 per cent were nonsmokers, while of the 500 patients studied as controls, fully 11 per cent were nonsmokers. The heavy smokers were found to be chiefly cigarette users.

It was emphasized that no conclusions can be drawn from these studies that cigarette smoking, no matter how heavy, will itself cause cancer of the lung, no matter over how long a period, since 50 per cent of the control patients smoked the same amount over the same period without developing lung cancer.

Cancer of the lung like all other forms of cancer, it was stressed by Professor Evarts and the others, springs from a number of causes, most of them at present unknown. All studies point to the conclusion that cancer develops because there is a predisposition for it, either hereditary or environmental, the latter including both the external and the internal environment.

The only conclusion that can be

justified at present from observation of a parallelism between the increase in cigarette smoking and the increase in the incidence of lung cancer in the American male during the past twenty years, the investigators emphasize the possibility that cigarettes may play a role as one of the major factors responsible for the great increase in the occurrence of cancer in men.

Unfortunately, however, there is no way of telling, at the present stage of our cancer knowledge, whether or not such a susceptibility exists. The best advice that science can offer today, therefore, is the old and true maxim: "Do everything in moderation."

It was further emphasized that the study is still in its preliminary stages and that at least 50,000 cases will have to be studied before definite conclusions can be drawn as to whether heavy cigarette smoking, namely, a pack or more a day, is one of the major agents responsible for the increase of lung cancer in men.

Professor Evarts, who on Feb. 25 performed the operation for the removal of the entire lung that had become cancerous, reported that there was a recovery in 28 per cent of the patients in such operations and that the percentage is increasing. He pointed out that the first sign of lung cancer is a persistent cough and that blood-streaked sputum is a tremendously significant sign, especially over forty as a sign of the presence of cancer of the lung. He suggested a competent physician as the earliest manifestation of a sign, he emphasized, may be the difference between life and death.

Dr. Egon Lorenz of the National Cancer Institute, United States Public Health Service, Bethesda, Md., reported on experiments determining the effect of cigarette smoke and tar on mice susceptible to lung cancer.

No evidence could be found in these experiments, Dr. Lorenz reported, "that tobacco smoke or tobacco tar is carcinogenic in mice."

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### Warn Against Conclusions

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mental, the latter including both the external and the internal environment.

The only conclusion that can be justified at present from the observation of a parallelism between the increase in cigarette smoking and the increase in the incidence of lung cancer in the American male during the past twenty years, the investigators emphasized, is the possibility that cigarettes may play a role as one of the many factors responsible for the great increase in the occurrence of lung cancer in men. In other words, if a susceptibility to lung cancer already exists, then it is possible that cigarette smoking in excess, over a long period of time, may act as the proverbial straw in breaking the camel's back.

Unfortunately, however, there is no way of telling, at the present stage of our cancer knowledge, whether or not such a susceptibility exists. The best advice medical science can offer today, therefore, is the old and true maxim to do everything in moderation.

In this connection it was interesting to note that Professor Evarts smokes no more than six cigarettes a day, while Dr. Maier revealed that he had stopped smoking altogether some years ago, though he admitted he could not tell for what reason, since he stopped long before he participated in the present study.

The studies also revealed that 97 per cent of the lung cancer patients who smoked heavily inhaled the smoke. Reduction in the amount of inhalation may therefore also be a wise precaution to follow.

The very large difference in ratio between men and women in their susceptibility to lung cancer would indicate that the sex difference, probably hormonal, is largely responsible. However, it was pointed out that it is premature to draw the conclusion that heavy smoking of cigarettes plays a different role in the female, since it was found that the average duration of smoking in patients with lung cancer was thirty-five years, which goes back to about 1914, when women were just beginning to smoke.

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