

Chemicals in Atmosphere Called Cancer-Producing

By Stuart Auerbach
Washington Post Staff Writer

ST. AUGUSTINE, Fla., March 22—Two leading cancer experts warned today that the earth's environment is being filled with chemicals that could cause cancers that will not show up for another 20 years.

Their warning came just eight weeks after reports of a rare form of liver cancer among long-time workers in factories making polyvinyl chloride, a plastic product used for everything from wrapping meat to tubings in hospitals to auto seat covers.

"The cancers we are seeing now had their origin 15 to 35 years ago," Drs. E. Cuyler Hammond and Irving J. Selikoff told an American Cancer Society science writers' seminar here.

"Prevention of cancer in the year 2,000 is the order of the day in 1974," they continued.

Hammond is vice president for epidemiology of the American Cancer Society; Selikoff, professor of medicine at Mount Sinai School of Medicine in New York City.

The two cancer experts said

they are worried about "the vast number of new chemical agents" that have been introduced into the environment in recent years, including chemicals used to improve the taste, freshness and appearance of food.

Scientists estimate that 10,000 new chemical compounds are introduced into the environment every year.

"There has been and continues to be no pretesting of materials for cancer and other serious diseases," the two experts said. "Examination is for serviceability, saleability, utility; whether cancer will result is hardly considered, except for radioactive devices."

Hundreds of thousands of factory workers are exposed to these new chemicals. Moreover, Hammond and Selikoff said, "A useful chemical or an efficient plastic permeates a nation, or large parts of the world. There is literally no place to hide."

They declined, however, to warn consumers to stay away from products containing the plastic polyvinyl chloride. "There is no evidence that it is a hazard," Selikoff said, although he added that polyvi-

nyl chloride may contain low levels of vinyl chloride gas, its main constituent, which scientists believe to be cancer-causing.

"If vinyl chloride isn't safe, like modernhood, what is safe in the environment?" said Selikoff. "Here was a plastic, assumed to be inert, being introduced into our environment around 20, 25 years ago. All of a sudden we begin to see this central part of the chemical process industry suddenly coming to life and hardly inert in terms of cancer."

He added that experts in the chemical industry say that cancer specialists should be worried about "every" component or plastic product on the marketplace.

So far, almost 1,000 chemicals have been found to produce cancers in either human or animal tests, but many more are suspected. Unfortunately, the two scientists said today, many cancer-causing agents are not found until long after workers have been exposed to them.

So far, researchers have found 12 cases of angiosarcoma, a rare cancer of the liver, among polyvinyl chlo-

ride workers in plants in Kentucky, New York, West Virginia, Texas and Great Britain. Selikoff estimated that perhaps 5 per cent of polyvinyl chloride workers will get that cancer, which cannot be cured.

"This new occupational cancer promises to be an important cause of death among vinyl workers," Hammond and Selikoff said.

In an effort to cut workers' exposure to vinyl chloride, the U.S. Labor Department's Occupational Safety and Health Administration today said it would limit the allowable exposure level in factories to 50 parts per million. (Selikoff indicated that he would prefer a zero allowable exposure level.)

Selikoff was instrumental in showing that thousands of men and women who worked with asbestos from 1930 to 1950 have died of cancers caused by that chemical.

To prevent this type of death, Selikoff and Hammond recommended that any new chemical that is to get wide distribution be tested on animals for its cancer-causing effects.

The Positive Side

To the Editor. — There likely will be much discussion concerning the issues raised by Dr. William E. Morton's letter and attention called to instances in which industrial physicians have failed to pursue evidence of occupational hazard, or have turned away from such information.

It would be well, in this event, to remind ourselves of the scientific and medical integrity which underlay the recent splendid study of coke oven workers in steel mills conducted by Lloyd and his colleagues.^{1,2} This could not have been planned nor accomplished without the wholehearted cooperation of key units in the steel industry, U.S. Steel, Allegheny Ludlum and Jones & Laughlin. Indeed, my understanding is that an important part of this research came from Dr. Robert O. Jones

of U.S. Steel and Dr. D. I. Lauer then Medical Director of Jones & Laughlin.

It is as important to recognize honest and sincere physicians and scientists in industry as to criticize others who may, as Dr. Morton charges, suppress data suggesting occupational health hazards.

IRVING J. SELIKOFF, M.D.
Professor, Mount Sinai School of Medicine
New York, N.Y.

References

1. Morton W.E. Letter to Editor. *Am J Ind Hyg Assoc*. 1973;34:100.
2. Lloyd J.K. and Lauer D.I. Occupational cancer in coke oven workers. *J Occup Med*. 1973;15:112-113.
3. Lloyd J.K. and Lauer D.I. Occupational cancer in coke plant workers. *J Occup Med*. 1973;15:113-114.