

Dr. Lewis Kuller, a Father of Preventive Cardiology, Dies at 88

His clinical studies focused largely on how to reduce the risk factors of cardiovascular disease. He also established a link between menopause and heart disease.



Dr. Lewis Kuller with a patient undergoing an ultrasound test in 1995. He helped develop inexpensive, noninvasive tests to predict heart disease and strokes. Credit...Scott Goldsmith for The New York Times

By [Richard Sandomir](#)

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Dr. Lewis Kuller, a top epidemiologist and a leading figure in preventive cardiology, could trace his interest in the field to when he was a medical resident in Brooklyn in the early 1960s, responding by ambulance to emergency calls when people had died suddenly of heart attacks at home or in the street.

Working out of Maimonides Hospital and routinely sent out on emergency calls, he noticed that most heart attack deaths happened outside the hospital.

“So we were going to the home and finding people dead, or in the street, but especially at home,” Dr. Kuller said in an interview for a University of Minnesota project on heart attack prevention in 2002, “and secondarily we would often go to the home and find people sticking their head out the window in acute pulmonary edema.”

The experience led him to a career of more than 60 years in which he studied the risk factors for cardiovascular disease through a breadth of clinical trials, much of that time as chairman of the epidemiology department at the University of Pittsburgh School of Public Health.

“Lew was at the leading edge of what we need to think about next,” Dr. Donald Lloyd-Jones, the immediate past president of the American Heart Association, said in a phone interview. “He really understood the humanity of public health.”

Dr. Kuller died at 88 on Oct. 25 in a Pittsburgh hospital. His son, Steven, said the cause was pneumonia and congestive heart failure.

In the 1970s and '80s, Dr. Kuller was the chief investigator in the 10-year Multiple Risk Factor Intervention Trial, colloquially known as “Mr. Fit.” Involving nearly 13,000 men between the ages of 35 and 57, it focused on reducing the risks of heart disease through aggressive intervention by treating blood pressure and high cholesterol and counseling cigarette smokers.

When researchers followed up with the men seven years later, those who had received special intervention had only a 7 percent lower rate of fatal heart disease than the men who had received medical care from their usual doctors. However, the combined fatal and nonfatal heart disease rate for those who received special intervention was significantly lower.

Starting in the 1980s and continuing for nearly 25 years, Dr. Kuller was the architect of a trial called the [Healthy Women Study](#), which demonstrated that menopause was a risk factor for cardiovascular disease.

“He was one of the first to say that menopause is a very critical point in heart disease for women, that they seemed to be protected until that point,” [Anne B. Newman, director of the Center for Aging and Population Health](#) at the University of Pittsburgh School of Public Health, said in a phone interview.

Through ongoing studies in the 1980s and '90s about the emergence of cardiovascular disease in people 65 and older and systolic hypertension among those over 60, Dr. Kuller helped develop two inexpensive, noninvasive tests to predict heart disease and strokes.

Using the new methods, the study found that people with significant clogging of the arteries, or atherosclerosis — but without any outward symptoms of heart disease, like chest pains — were two or three times as likely to die within a few years as those without evidence of the condition.

“You don’t necessarily have to apply aggressive treatment to everyone with bad risk factors,” [Dr. Kuller told The New York Times](#).

One test used high-frequency sound waves to assess potential blockages in the arteries that feed the brain; the other measured the differences between blood pressure in the arms and legs, with lower ratios indicating the likelihood of extensive atherosclerosis in peripheral arteries to the legs. Both tests are still performed.

In the brain-focused test, an instrument called a duplex scanner aimed at the carotid arteries measures the speed of blood flow; a high speed indicates that the artery has narrowed, because blood entering a narrowed channel accelerates.

Image



Dr. Kuller in 2012 at the University of Pittsburgh, where he was the longtime chairman of the School of Public Health’s epidemiology department. Credit...Alan Adams, via University of Pittsburgh

Lewis Henry Kuller was born in Brooklyn on Jan. 9, 1934. His father, Meyer, owned a pharmacy; his mother, Dora (Olener) Kuller, was a kindergarten teacher.

He graduated from Hamilton College, in Clinton, N.Y., with a bachelor’s degree in 1955. He earned his medical degree from George Washington University in 1959.

After his residency at Maimonides Hospital, he served as a medical officer in the Navy from 1961 to 1963, then studied at the Johns Hopkins University School of Hygiene and Public Health (now the Bloomberg School of Public Health), where he earned a master’s

degree in public health in 1964 and a Ph.D. in the subject in 1966. He was also a resident in preventive medicine at Johns Hopkins.

Between 1966 and 1972, Dr. Kuller taught chronic diseases and epidemiology at Johns Hopkins and preventive medicine at the University of Maryland. In those years he published several studies of sudden cardiac death. In the journal *Circulation* in 1966, he and his colleagues reported finding that 32 percent of the deaths of Baltimore residents between 1964 and 1965 were sudden, and that arteriosclerotic heart disease accounted for 58 percent of them.

In another study, published three years later in *The American Journal of Cardiology*, Dr. Kuller called for a “program of primary prevention of myocardial infarction and sudden death or methods of early diagnosis and treatment” to reduce heart disease.

Image



Dr. Kuller received the Peter J. Safar Pulse of Pittsburgh Award in 2019 for his contributions to the study of cardiovascular disease. Credit...University of Pittsburgh Appointed chairman of the epidemiology department at the University of Pittsburgh in 1972, he was also a professor there and a frequent investigator in clinical trials, as well the author of many journal articles.

“He had an inquisitive mind,” said Ross Prentice, a professor in the cancer prevention program at the Fred Hutchinson Cancer Center in Seattle, “and the willingness to study the literature, not just in the areas he might be working in, but he would send me things

every couple of weeks — ‘here’s what I found in this journal,’ he’d say. He had great intellectual vigor into his 80s.”

Among Dr. Kuller’s many studies was one of a small group of people that found a link between artery-clogging calcium deposits and a risk of dementia in people over 80.

“If delay or prevention of atherosclerosis resulted in the reduction or slowing of progression of brain disease and subsequent incidence of dementia,” Dr. Kuller told an [online publication](#) of the University of Pittsburgh Medical Center in 2016, “then there is the potential for a very substantial impact on reducing the majority of dementia in very old ages.”

In addition to his son, Dr. Kuller is survived by his wife, Alice (Bisgaier) Kuller; his daughters, Gail Enda and Anne Kuller; and six grandchildren.

In 1985, Dr. Kuller’s “Mr. Fit” study became a cause célèbre when an advertisement published in 25 newspapers and magazines by the tobacco company R.J. Reynolds used it to say that it had failed to find a clear link between smoking and heart disease.

[Dr. Kuller told The Washington Post](#) that the study did not test the link between smoking and heart disease because the evidence on the connection was a long-settled scientific issue.

In response to the Reynolds advertisement, Dr. Kuller told The Post, “It’s like an ad that says, ‘Eat a carcinogen — we need more time to think about the issue.’”