The New York Times

Bernard Lown, Inventive Heart Doctor and Antiwar Activist, Dies at 99

He created the first effective heart defibrillator and co-founded a physicians group that campaigned against nuclear war, earning a Nobel Peace Prize.

By Robert D. McFadden

Feb. 16, 2021

Dr. Bernard Lown, the Harvard cardiologist who invented the first effective heart defibrillator and was one of a group of co-founders of an international organization that won the 1985 Nobel Peace Prize for its campaign against nuclear war, died on Tuesday at his home in Chestnut Hill, Mass. He was 99.

His granddaughter Ariel Lown Lewiton confirmed the death. She said he had experienced complications of congestive heart failure and had contracted pneumonia.

It was in 1962 that Dr. Lown, a pioneer in the research of sudden cardiac death, developed a new method for correcting dangerously abnormal heart rhythms, called fibrillations. At the time, they were believed to be responsible for 40 percent of the half-million fatal heart attacks in the United States every year. By administering a precisely timed jolt of direct-current electricity, his defibrillator was able to restore normal heartbeats.

The breakthrough, after decades of failed or flawed alternatives by others, became a lifesaving technique worldwide and helped make open-heart surgery possible. It ushered in a new era of cardiac resuscitation techniques and technological developments, including modern pacemakers and defibrillators implanted in the chests of heart patients that automatically detect and correct abnormal rhythms.

Former Vice President Dick Cheney, who was plagued by coronary disease and heart attacks for decades and had a sophisticated pacemaker and defibrillator implanted in 2001, is perhaps the most prominent recipient of these advances.

Dr. Lown's antinuclear work was more controversial. In 1980, seven American and Soviet physicians, including Dr. Lown and Dr. Yevgeny I. Chazov, a Russian cardiologist and personal doctor to the Soviet leader Leonid I. Brezhnev, founded International Physicians for the Prevention of Nuclear War. Campaigning against nuclear testing and the arms race, the group had gathered 135,000 members in 41 countries by 1985, when it won the peace prize.

Dr. Lown, second from right, with his American and Soviet colleagues after their group, International Physicians for the Prevention of Nuclear War, received the 1985 Nobel Peace Prize. International Physicians for the Prevention of Nuclear War

“This organization has performed a considerable service to mankind by spreading authoritative information and by creating a public awareness of the catastrophic consequences of atomic warfare,” the Norwegian Nobel Committee said in awarding the prize. Dr. Lown and Dr. Chazov, who shared the group’s presidency, received the prize in Oslo on behalf of the organization. The other founders were Herbert L. Abrams, Eric Chivian and James E. Muller of the Harvard Medical School, and Mikhail Kuzin and Leonid Ilyin of the Soviet Union.

While the organization insisted that it had no tilt toward Moscow or Washington and that it regarded atomic war as the ultimate public health disaster that would overwhelm modern medicine, conservative Western critics called its leaders naïve, maintaining that its work played into the hands of Soviet propagandists.

The award was particularly controversial because Dr. Chazov, a member of the Soviet Communist Party’s Central Committee, was the personal physician to Kremlin leaders and had, a decade earlier, spoken out against the only other Soviet recipient of the Nobel Peace Prize, Andrei D. Sakharov, the human rights activist who as a physicist had been instrumental in developing the Soviet Union’s hydrogen bomb.

In a 2008 memoir, “Prescription for Survival: A Doctor’s Journey to End Nuclear Madness,” Dr. Lown recounted the story of his antinuclear group and noted that the end of the Cold War had not resolved the threat of annihilation. “Eliminating the nuclear menace,” he wrote, “is a historic challenge questioning whether we humans have a future on planet earth.”

Bernard Lown was born in Utena, Lithuania, on June 7, 1921, to Nisson and Bella (Grossbard) Lown. A grandfather of his had been a rabbi in Lithuania.

The family emigrated to Maine in 1935, and his father ran a shoe factory there, in Pittsfield. Bernard graduated from Lewiston High School in 1938. He earned a bachelor’s degree in zoology at the University of Maine in 1942 and his medical degree from Johns Hopkins University in 1945.

In 1946, he married Louise Lown, a cousin. She died in 2019. The couple had previously lived in Newton, Mass. In addition to his granddaughter Ariel, he is survived by three children, Anne, Fredric and Naomi Lown; four other grandchildren; and one great-grandchild

After an internship and residency in New York City, Dr. Lown settled in Boston in 1950 and over the next decade taught and conducted cardiovascular research at Peter Bent Brigham Hospital and the Harvard Medical School.

In 1952, he and Dr. Samuel A. Levine recommended in The Journal of the American Medical Association that patients with congestive heart disease recuperate in an armchair, not a bed, because fluids pool in the chest cavity when lying down, forcing the heart to work harder. The advice is widely accepted now.

After hearing a lecture on medicine and nuclear war, Dr. Lown became the founding president of Physicians for Social Responsibility in 1961. In 1962, he studied the medical effects of a hypothetical nuclear attack on Boston. His conclusions — that the attack on one city would exhaust all the nation's medical resources just to treat the burn victims — were published in The New England Journal of Medicine.

Dr. Lown disclosed his breakthrough experiments on defibrillation in 1962 in a report to the American Society for Clinical Investigation. Previous arrhythmia work had shown that a heartbeat's cycle contained two points of vulnerability, each lasting only a few thousandths of a second, and that jolts of alternating current to correct irregularities were too imprecise to avoid them and often proved fatal.

The Lown device, called a cardioverter, used direct current and precise timing to avoid the danger points. He administered jolts through the chest walls of 11 patients, some near death, and restored normal heartbeats to all. He had the device manufactured by the American Optical Company, and by 1964 thousands of hospitals were equipped with it and routinely restoring wildly erratic heartbeats to normal patterns.

Dr. Lown's later research found that the trigger for many abnormal heart rhythms was not in the heart but in the brain and central nervous system, and that everyday stress played a role. In 1973, he reported that sleep was better than many potent cardiac drugs in controlling dangerous heartbeats, and in 1976 he found that nitrous oxide — old-fashioned "laughing gas" — could relieve the acute pain of heart attacks.

Dr. Lown founded SatelLife USA, a nonprofit based in Boston that launched a communications satellite in 1991 to help provide online medical training and information to thousands of doctors and health care workers in Africa and Asia.

He also founded ProCor, a global email and web network focusing on cardiovascular crises in developing nations, where up-to-date medical information can be scarce. Both organizations have been credited with saving lives in emergencies.

Dr. Lown was the author of several books besides his memoir, including "The Lost Art of Healing" (1996), and more than 400 research articles in medical journals. He lectured widely and was the recipient of many honors, including UNESCO's Peace Education Prize.

He retired from the Harvard School of Public Health as professor emeritus in 2000 but remained a senior physician at Brigham and Women's Hospital in Boston. He continued to direct the Lown Cardiovascular Center in Brookline, Mass., which emphasizes noninvasive and preventive treatments, as well as a foundation that supports cardiovascular research and training.

In 2018, Dr. Rich Joseph, a resident physician at Brigham and Women's Hospital, treated Dr. Lown for pneumonia and got to know his patient afterward. Dr. Joseph wrote a commentary for The New York Times about Dr. Lown's appeal, in "The Lost Art of Healing," for a restoration of trust between doctors and patients.

"Despite his reputation, Dr. Lown was treated like just another widget on the hospital's conveyor belt," Dr. Joseph wrote, and he quoted Dr. Lown as saying: "Each day, one person on the medical team would say one thing in the morning, and by afternoon the plan was changed. I always was the last to know what exactly was going on, and my opinion hardly mattered."

Dr. Lown needed "the feeling of being a major partner in this decision," he said, adding: "Even though I'm a doctor, I am still a human with anxieties."

Isabella Paoletto contributed reporting.