



# Dwight Emary Harken



Dwight Emary Harken '36, the first surgeon to establish safety and success in heart surgery, died on August 27, 1993 after a brief illness at the age of 83. His career was a series of pioneering ventures with a record of accomplishments so numerous and significant that he is often considered one of the fathers of heart surgery.

Harken served as an intern at Bellevue Hospital in New York after his graduation from Harvard medical School in 1936. Subsequently he trained with Tudor Edwards at Brompton Hospital in London, where he familiarized himself with the latest techniques for pulmonary and esophageal surgery. Even then his interest was turning toward the possibility of operating on the heart, despite the reluctance of most surgeons to try and the failure of

those few who did.

In the experimental laboratory Harken began investigating the possibility of removing segments of the mitral valve by combined transventricular and transatrial manipulation of the beating heart. These endeavors were directed toward a possible surgical cure for bacterial endocarditis, at that time a uniformly fatal illness.

With the outbreak of World War II, he joined the U.S. Army, where he became consultant surgeon for thoracic surgery in the European theater. While serving in England at the 160th General Hospital, Lieutenant Colonel Harken amassed a series of cases that, even today, would be considered quite remarkable. These 134 cases – which involved 139 operations for removal of bullets and shrapnel from within and around the heart and great vessels were accomplished with no surgical deaths. They included 13 patients from whose cardiac chambers foreign bodies were removed using the techniques Harken had previously perfected in experimental animals. These results, presented at a meeting of the Association of

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*In tribute to their dedicated efforts to science and medicine, deceased members of the Harvard Faculty of Medicine (those at the rank of full or emeritus professor) receive a review of their life and contributions with a complete reflection, a **Memorial Minute**.*

Surgeons of Great Britain and Ireland in may 1945, properly establishing the new discipline of cardiac surgery.

Upon his return to Boston, he was appointed assistant professor of surgery at Tufts University medical School and surgeon at the Boston City Hospital. In 1947 Harken, coincidentally with Charles Bailey of New York, introduced and popularized closed valvuloplasty for mitral stenosis. In 1948 Harken returned to HMS when he was appointed chief of thoracic and cardiac surgery at the Peter Bent Brigham Hospital. His work with closed mitral valvuloplasty continued and with his associates in cardiology, notably Lewis Dexter at the Peter Bent Brigham Hospital and Lawrence B. Ellis at the Mount Auburn Hospital he refined and developed the operation of closed valvuloplasty into a safe and predictable technique for surgical corrections of mitral stenosis.

In 1951 Harken, in cooperation with Edith Heidemann, RN, established the first post-operative intensive care unit for cardiac surgical patients. The concept was subsequently extended to include intensive care units for a variety of medical and surgical cute illnesses.

With his colleagues and trainees, he continued to push back the frontiers of surgical treatment of heart disease. On March 10, 1960 he performed for the first time a cardiac valve replacement with insertion of an artificial valve into the normal anatomic position in the aorta. Other contributions continued in remarkable profusion. These included implantation of the first demand cardiac pacemaker, development of the direct current (DC) defibrillator, and the experimental work to develop the concept of counterpulsation, which led to the development of the intra-aortic balloon pump.

As if these technical and technological advances were not enough, Harken also was a premier teacher of cardiac surgery to surgeons and cardiologist. After serving as president of the American College of Cardiology, he was a strong supporter of the development of Heart House, the teaching center and headquarters for the American College of Cardiology. He also served as president of the Association for the Advancement of Medical Instrumentation in its early formative years and subsequently served a long tenure as editor-in-chief of the association's journal.

He was a leader of the international campaign against smoking. The current restrictions on smoking in public buildings, restaurants and aircraft are directly attributable to organizations that he strongly influenced.

Recipients of numerous awards, medals and citations at home and abroad from government leaders, academicians, colleagues and patients Harken was indeed well and rightly appreciated.

For his part Harken managed to keep the adulation and awards in reasonable perspective. He greatly enjoyed telling a story of the birth of his grandson Dwight, son of Alden and Laurie. It seems that a distinguished professor of surgery happened to see the name Harken on the door of a room in the Boston

Lying in Hospital. After a knock he poked his head in the room and asked Laurie, reclining in bed with her newborn child, whether she was related to **THE** Dwight Harken – to which she replied “yes, I am his mother.”

As magnificent as his accomplishments were, he considered his greatest success and his source of greatest pride to be his family. His wife, Anne, was his greatest inspiration and source of strength, who shielded him from everyday concerns so he could totally devote himself to the advancement of his profession and the companionship of his children and grandchildren. Jill and Alden were always a great source of pride for their father. Even beyond the grandchildren, of whom he was wonderfully fond, he leaves a family of students, colleagues and patients who will miss him and in whose lives the loss of his companionship and counsel will long be felt.

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Respectfully submitted,

John J. Collins, Jr., M.D.  
Professor of Surgery, Emeritus  
Department of Surgery  
Brigham and Women’s Hospital