

# Sir Brian Gerald Barratt-Boyes—Pioneer Cardiac Surgeon

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Born on January 13, 1924, in Wellington, New Zealand, Brian Barratt-Boyes attended Wellington College and then Victoria University, both in Wellington. He graduated in medicine from Otago Medical School (Dunedin, New Zealand) in 1946. He received initial surgical training in New Zealand and then trained with pioneering cardiac surgeon John Kirklin at Mayo Clinic in Rochester, Minnesota, from 1953 to 1955. Following a 1-year Nuffield Fellowship in England—a program endowed in 1940 by Viscount Nuffield of Oxford (William Morris, founder of Morris Motors) to support research in health care policy—Barratt-Boyes was recruited by Sir Douglas Robb, New Zealand's pioneer of heart surgery, to Green Lane Hospital in Auckland, New Zealand.

At Green Lane, Barratt-Boyes pioneered the development of cardiopulmonary bypass surgery, using this technique for the first time on a patient in New Zealand in 1958. He was also one of the first surgeons to implant a pacemaker (a prototype built in a university laboratory) in the human heart before these devices became commercially available in 1961. He credited these early successes in part to the remoteness of New Zealand with its accompanying freedom from the distractions of large urban centers, and he compared this to the single-minded devotion that the small city of Rochester had allowed Kirklin.

In 1962, independently and almost simultaneously with Donald Ross of London, Barratt-Boyes introduced human cadaveric aortic homografts for aortic valve replacement. He championed the physiologic advantages of such grafts and simplified their surgical implantation technique. He also introduced the use of hypothermia and cardiac arrest for major surgery in neonates and infants. He was coauthor

with John Kirklin of the authoritative text *Cardiac Surgery*, published in 1985, which ran to more than 1500 pages.

Perhaps Barratt-Boyes' greatest accomplishment was the training of young surgeons, particularly in pediatric surgery. He turned down many lucrative offers to head surgical departments or institutions outside of New Zealand. In recognition of his surgical contributions and devotion to advancing health care in his native country, he was knighted in 1971 at the age of 47 years.

In his obituary in *The Independent*, Barratt-Boyes was described as “aggressive, autocratic, patriarchal and tough. His peers felt that he was opinionated and intolerant, while his juniors found him aloof, demanding and intimidating.” His combative temperament aided him in his advocacy of government funding of heart surgery for those who needed it, regardless of their ability to pay, during a time of budgetary austerity in New Zealand.

Barratt-Boyes developed angina at the age of 39 while on a trip to Bangkok but kept it secret for several years until he underwent coronary artery bypass surgery at age 50. He had to struggle to give up smoking and required several more cardiac procedures in subsequent years, but he lived more than 3 decades after his bypass. He died March 8, 2006, in Cleveland, Ohio, at age 82, following the replacement of two cardiac valves by Dr Toby Cosgrove at Cleveland Clinic—a procedure Barratt-Boyes had pioneered a half century earlier.

Barratt-Boyes was honored on a stamp (Scott No. 1317) issued in 1995 by New Zealand. At the time the stamp was issued, he was one of only a handful of living persons in New Zealand (other than monarchs) to have received this honor.

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