

VIVIEN THOMAS, LL.D.

LIFESPAN CELEBRATES BLACK HISTORY MONTH

WHO WAS VIVIEN THOMAS?

Dr. Denton Cooley at the Texas Heart Institute in Houston said it best, "Vivien Thomas wasn't a doctor. He wasn't even a college graduate. He was just so smart, and so skilled, and so much his own man, that it didn't matter". Vivien Thomas had dreams of becoming a physician since he was a young boy going to school in Nashville, Tennessee. Thomas was a skilled carpenter, and managed to save for seven years in hopes of paying for his education. However, he lost his savings during the Great Depression and in 1930, went on to Vanderbilt University's Medical School to work as a laboratory assistant to Alfred Blalock. Dr. Blalock was a pioneer in cardiac surgery and this partnership would change Vivien Thomas' life and ultimately, his legacy.

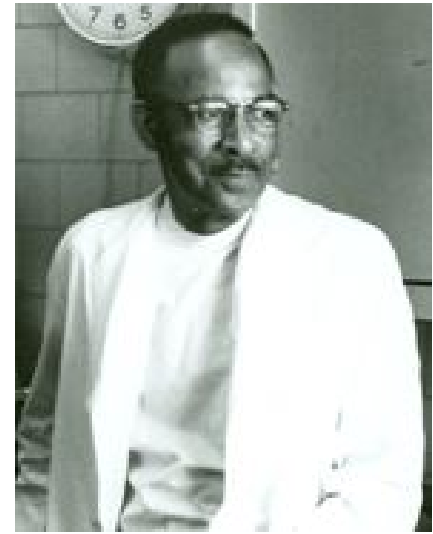
Within just a few days, Thomas was doing arterial punctures on the laboratory dogs and administering anesthesia. Within a month, he was setting up experiments and performing complex operations. Together, they were engaged in groundbreaking research into the causes of hemorrhagic and traumatic shock.

This research into explanations about shock revealed a connection to a decrease in blood volume and fluid loss outside the vascular bed. In just a few years, their research would lead to massive applications of blood and plasma transfusion in the treatment of shock.

VIVIEN THOMAS' LEGACY

By 1940, Thomas was off to John Hopkins with Dr. Blalock who was offered the Chief of Surgery position. Together, they continued their shock research, but began working with pediatric cardiologist Dr. Helen Taussig who was seeking a surgical solution to a fatal four-part heart anomaly called Tetralogy of Fallot (blue baby syndrome). Thomas was charged with the task of first creating a blue baby-like condition (cyanosis) in a dog, then correcting the condition by means of the pulmonary-to-subclavian anastomosis. In nearly two years of laboratory work involving some 200 dogs, Thomas demonstrated that the corrective procedure was not lethal, thus persuading Blalock that the operation could be safely attempted on a human patient. During this first procedure in 1944, Thomas stood on a step-stool behind Blalock coaching him through the procedure. Due to the commonplace racial segregation and discrimination of the times, Thomas was never credited for his integral role in the success of this procedure when it was published in the May 1945 issue of the Journal of the American Medical Association.

In 1946, Thomas developed a surgical technique for improving circulation in patients whose aorta and pulmonary artery were transposed (reversed). This surgical technique is known as a complex operation called an atrial septectomy. Thomas trained young surgeons throughout the 1940s at John Hopkins and became known as the model of the dexterous and efficient cutting surgeon.



Born: August 29, 1910
Died: November 26th, 1985

Blalock's approach to the issue of Thomas's race was complicated and contradictory throughout their 34-year partnership. On

one hand, he defended his choice of Thomas to his superiors at Vanderbilt and to Hopkins colleagues, and he insisted that Thomas accompany him in the operating room during the first series of tetralogy operations. On the other hand, there were limits to his tolerance, especially when it came to issues of pay, academic acknowledgment, and his social interaction outside of work. After Blalock's death, Thomas stayed at Hopkins for 15 more years. In his role as director of Surgical Research Laboratories, he mentored a number of African American lab technicians as well as Hopkins' first black cardiac resident, Dr. Levi Watkins, Jr., whom Thomas assisted with his groundbreaking work in the use of the Automatic Implantable Defibrillator.

In 1976, Johns Hopkins University presented Thomas with an honorary doctorate. However, because of certain restrictions, he received an Honorary Doctor of Laws, rather than a medical doctorate. Thomas was also appointed to the faculty of Johns Hopkins Medical School as Instructor of Surgery.

Following his retirement in 1979, Thomas began work on an autobiography, *Pioneering Research in Surgical Shock and Cardiovascular Surgery: Vivien Thomas and His Work with Alfred Blalock*. He died of pancreatic cancer, at age 75, and the book was published just days later.