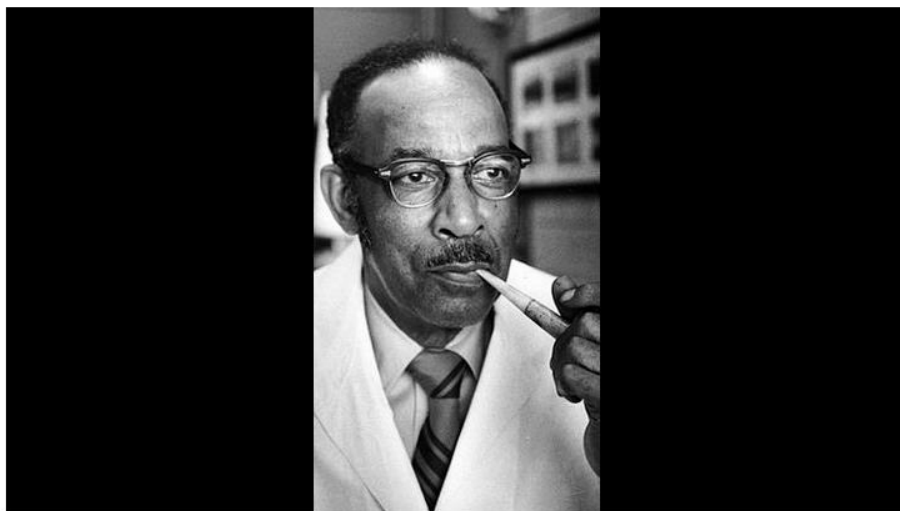


Vivien Thomas helped develop the 'blue baby' operation at Johns Hopkins



Vivien Thomas was the 'technician' who helped Dr. Alfred Blalock and Dr. Helen Taussig develop the 'blue baby' operation at Johns Hopkins. (Sun file photo)

Sun Reporter

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'Technician' showed surgeon what to do

Adviser: Vivien Thomas helped Dr. Alfred Blalock and Dr. Helen Taussig develop the 'blue baby' operation.

AP/WIDEWORLD

Vivien T. Thomas, who was born in New Iberia, La., and raised in Nashville, Tenn., had hoped one day to become a surgeon. A bank failure during the early days of the Great Depression wiped away his medical-school savings and nearly his dream. The son of a contractor, Thomas was so impressed as a youth by his family's physician that he pledged to "be like him." He had scraped together the money for his medical education by working after school and as an orderly in a private infirmary.

In 1929, Thomas enrolled in a premedical course at the [Tennessee Agricultural and Industrial College](#) and, after losing his money in the stock market crash, went to work in 1930 for Dr. Alfred Blalock at [Vanderbilt University](#), who eventually trained him to be his surgical assistant.

At Vanderbilt, both Blalock and Thomas conducted experiments pulmonary hypertension and traumatic shock.

Out of their research came the revelation that shock was associated with loss of fluid and a decrease in blood volume. The importance of this discovery later saved thousands and thousands of lives during **World War II**, when casualties were treated with massive blood and blood-plasma transfusions.

Blalock, a graduate of the Johns Hopkins Medical School, was associated with Vanderbilt for 10 years and built a distinguished career and reputation there. He returned to Hopkins as chief of surgery in 1941, bringing Thomas with him.

Doctors' fame

Three years later, Blalock and Dr. Helen Taussig earned international acclaim for their "blue baby" operation on a 14-month-old girl, while Thomas' accomplishments at the time went unnoticed. However, the success of the procedure could not have been accomplished without his research and operating-room expertise.

Present throughout the history-making surgery, he was able to advise both Blalock and Taussig because he had performed the same operation, which bypasses constricted vessels leading from the heart, more than 300 times on dogs.

He had worked with them, side by side, in the development of the surgical procedure that eventually corrected the heart defect known as tetralogy of Fallot, or "blue-baby syndrome."

As the operation proceeded, Blalock would occasionally turn to Thomas and ask, "Is that all right, Vivien?" "Are the bites [sutures] close enough together?"

The surgery, which has saved thousands of cyanotic children, corrects the lack of oxygen in the blood that turns a seemingly healthy pink baby blue.

While the operation was a success and the little girl recovered, she later died of complications. However, what they had learned eventually guaranteed an 80 percent success rate in such cases.

"What he has done is help develop some of the most significant surgical procedures in medical history," said The Sun in 1971 of his accomplishments.

When Blalock performed the surgery, "it was Mr. Thomas, the surgical technician, who stood looking over his shoulder offering suggestions and advising about techniques. Unlike the surgeons and other specialists he has worked with for almost half a century, he has no medical classwork behind him and -- no degree," said the newspaper.

Several years earlier, Taussig tried to find a remedy for the constriction of the blood vessels from the heart, when she found a report by Blalock and Dr. Edwards A. Park on the narrowing of the aorta. Their solution was to divert blood past the constriction, and she thought the procedure could be adapted for "blue babies."

"Mr. Thomas began producing 'blue baby dogs,' he says, and spent 'hours and hours in Dr. Taussig's museum of heart specimens, opening them, and closing, looking and thinking," said The Sun.

Thomas later said that the success of the operation on the first patient "blew the field wide open."

"Until then," said The Sun, "surgeons had been wary of working near the heart because of the problems of keeping the blood flowing. Surgical procedures had to be done in less than three minutes. There was no heart-lung machine then."

A career high

Reflecting years later on the corrective surgery, Thomas told The Sun, "It was a high point of my career."

Some days there were three corrective surgeries.

"People came out of the walls," he said, "bringing in their children with no appointments. The Hopkins wasn't set up for it, and the labs weren't geared for that kind of service."

Often working 12- to 16-hour days on blood tests, Thomas confessed that, after a year of such a frenetic pace, he nearly became a patient at Hopkins himself.

Dr. [Alan Woods Jr.](#), now retired after a 43-year career at Hopkins, where he worked with Thomas, said from his Guilford home the the other day, "He was one of the best natural surgeons I ever saw in my life.

"The things he could do with his fingers were simply amazing. During surgery, standing behind Dr. Blalock, he'd advise, 'No, no the stitch goes there, it goes this way.' He really was an extremely talented man."

While Thomas later became supervisor of surgical research laboratories at Hopkins and trained hundreds of surgeons, he was himself never allowed to operate on a human.

Both Blalock and Taussig were showered with prizes, while Thomas had to wait decades for the recognition that was so deservedly his.

In 1969, a group of former Hopkins surgical residents, called the "Old Hands Club," commissioned a portrait of Thomas that would be presented to the university and hospital. In 1976, he was awarded an honorary doctorate.

He wrote his autobiography, "Pioneering Research in Surgical Shock and Cardiovascular Surgery," which was being published by the [University of Pennsylvania](#) Press at the time of his death in 1985.

At the formal presentation of the portrait Feb. 27, 1971, Dr. C. Rollins Hanlon, director of the American College of Surgeons, said, "From him I learned the valuable surgical lesson that experimental procedures which seemed nearly impossible to execute when first tried might ultimately be performed with ridiculous ease and economy of time and assistants, after the separate steps had been mastered fully. Vivien Thomas was and is a technician in the finest sense of the term, as all well-rounded surgeons must be technicians."

Today, his portrait hangs in the [Johns Hopkins Hospital](#) beside that of Blalock, who was his benefactor and most of all his friend.

--Frederick N. Rasmussen

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