

Black History Month: The Pioneering Work of Vivien Thomas

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Below is a message from the EVC of Health Affairs office I recently sent out in honor of Black History Month.

There are so many ways one can contemplate the significance of Black History Month. I am a history of medicine buff and have been thinking about Black medical scientists who have had a remarkable impact in the medical field. Let me briefly retell the story of one of these pioneers you may have heard of. In the next EVC message later this month, I will tell you about another hero of mine I suspect will be a new story to you.

The hero you may have heard of is Vivien Thomas. A movie was made about his inspiring life called "Something the Lord Made." Vivien was born in Louisiana in 1910 and grew up in Tennessee. He graduated from high school on the cusp of the Great Depression. His father was a carpenter and taught Vivien carpentry skills, but Vivien wanted to be a doctor. He began working in the medical research laboratory as a technician for Dr. Alfred Blalock, a cardiothoracic surgeon at Vanderbilt University, in 1930.

He enjoyed the work but was paid very little. He soon learned why: his official job description was a janitor because he was Black. When he told Dr. Blalock he would have to leave due to his pay, Dr. Blalock obtained him a pay raise equal to white research lab employees. He became an indispensable member of Dr. Blalock's team because of his technical proficiency in the animal research laboratory and his work ethic.

Vivien and his wife and children moved with Dr. Blalock to Johns Hopkins Hospital in 1941 when he became the chief of surgery at that eminent institution. Shortly after arriving, Dr. Helen Taussig, a pediatric cardiologist, asked Dr. Blalock to think about how to do open-heart surgery on "blue babies" with fatal congenital heart abnormalities (the medical name for the anomaly is tetralogy of Fallot).

Open-heart surgery had never been performed on these patients before. Dr. Blalock put Vivien on the problem and he began thinking creatively about how to correct the abnormality. In dogs, he devised a way to suture an artery coming from the heart to an artery going to the lungs while the dog was anesthetized and while the heart was still

beating. The surgeries on the dogs were successful. (The first dog was called Anna and her portrait can be found in books retelling this story.) Vivien also designed very small needles that could be used in the tiny chests of infants and surgical clamps to help stop bleeding in a very small space.

On Nov. 29, 1944, they were ready to try this procedure on a blue baby patient of Dr. Taussig's. All of the dog surgeries were performed by Vivien, not Dr. Blalock. Therefore, Dr. Blalock had Vivien stand directly behind him in the OR. They conversed quietly during the 90-minute operation as Vivien instructed Dr. Blalock on the proper techniques to use. Viewers wondered: Who was the Black man giving Dr. Blalock instructions?

The baby survived and over the next two weeks, her lips and body turned from blue to pink. This heralded a new era in open-heart surgery and in the treatment of congenital heart abnormalities. Dr. Blalock did many more procedures and Vivien stood behind him coaching him as he did in the initial operation. The news of the miraculous procedure went international, however, all of the attention and credit went to Drs. Blalock and Taussig. Vivien was not even invited to a celebration party about the new procedure. In fact, when he walked through the halls of Johns Hopkins wearing a white coat, he was often looked at with suspicion because a Black man in the hospital was expected to wear a janitor's uniform, not a white medical coat.

After Dr. Blalock's death in 1964, Vivien would continue to operate the medical research laboratory for 15 more years and trained hundreds of surgeons to do open-heart surgery. He finally began getting the recognition he deserved late in his career. In 1971, the Old Hands Club, a group of doctors who trained under Vivien, commissioned a formal portrait of him that was displayed in the hospital across from Dr. Blalock's portrait. In 1976, Vivien was awarded an honorary degree by Johns Hopkins University and he was officially appointed an instructor in surgery. He retired in 1979 and died in 1985.

Vivien Thomas was never able to make it into college or medical school. He and his family endured segregation in Tennessee and Maryland throughout their lives. Nevertheless, he used his talents in an amazing way to advance medicine. About 40,000 babies are born each year with heart problems. Because of the creative thinking, surgical skills and tenacity of Vivien Thomas, many of these children now have a chance to live.

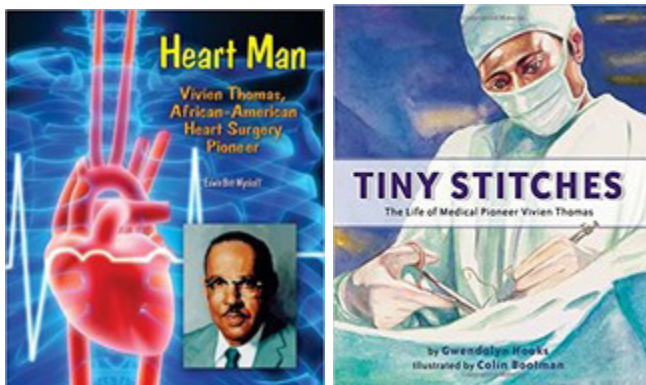
Sincerely,

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P.S.: For deeper reading on Vivien Thomas, read his posthumously published autobiography: “Pioneering Research in Surgical Shock and Cardiovascular Surgery: Vivien T. Thomas and His Work With Alfred Blalock.”

Also, there are two wonderful children’s books about Vivien. One is called “Heart Man: Vivien Thomas, African-American Heart Surgery Pioneer” by Edwin Brit Wyckoff. The other book is “Tiny Stitches: The Life of Medical Pioneer Vivien Thomas” by Gwendolyn Hooks and illustrated by Colin Bootman. I recommend you get these children’s books for your kids 12 and younger. You can watch the movie on HBO!

Finally, there is an interesting audio recording of an interview with Vivien Thomas. He describes his working relationship with Dr. Alfred Blalock at Vanderbilt University and Johns Hopkins. You can access the interview at this link: <https://soundcloud.com/hopkins-medical-archives/interview-with-vivien-thomas-1976>



Covers of “Heart Man: Vivien Thomas, African-American Heart Surgery Pioneer” by Edwin Brit Wyckoff, left, and “Tiny Stitches: The Life of Medical Pioneer Vivien Thomas” by Gwendolyn Hooks.