



Women diagnosed with breast cancer today have many options for treatment and the ability to have a female doctor to handle her care. It seems unconceivable to many of us that women haven't always been allowed to be trained as doctors. In this month's column, we feature pioneering women doctors and women who followed in the footsteps of those pioneers. These doctors ensured that women's – and children's – health concerns were addressed. We profile Dr. Elizabeth Blackwell, Dr. Helen Brooke Taussig, Dr. Virginia Apgar, Dr. Joycelyn Elders, and Dr. Susan Love.



Elizabeth Blackwell, the first female to graduate with a medical degree in the U.S., was initially repelled by the thought of studying medicine. She eventually embraced the prospect as a great moral struggle that had great attraction to her. Denied application by every medical school in Philadelphia, New York, and also by

Harvard, Yale, and Bowdoin, she studied in private and began applying to rural medical schools. She was admitted to study in 1847 at Geneva College in west central New York because the students thought her application was a spoof perpetrated by a rival school. She initially studied in isolation, ostracized by the townspeople and ignored by her fellow students. Her quiet determination eventually led to the support of an anatomy professor and respect from the other students.

On January 23, 1849, Blackwell received her medical degree from Geneva College. Establishing a medical practice presented additional challenges. She was barred from practice at New York City's dispensaries and hospitals and ignored by medical colleagues. In 1857, she established the New York Infirmary for Women and Children with two other women doctors – her sister, Dr. Emily Blackwell, and Dr. Marie E. Zakrzewska. She was a strong advocate for hygiene. At the Women's Medical College of the New York infirmary, she was insistent on high standards of education and practice including the necessary clinical training and experience.



Almost 100 years later, we profile **Dr. Helen Brooke Taussig**. Considered the founder of pediatric cardiology, in 1944, in collaboration with two colleagues, Taussig developed an operation to correct the congenital heart defect that causes “blue baby” syndrome. This operation has prolonged thousands of lives, and is considered a key step in the development of adult open heart surgery. In the 1950s, she helped to avert a thalidomide birth defect crisis in the United States, testifying to the Food and Drug Administration on the terrible effects the drug had caused in Europe.

By the time Taussig graduated from Johns Hopkins, she had lost her hearing. She relied on lip-reading and hearing aids for the rest of her career. Some of her innovations in pediatric cardiology have been attributed to her ability to distinguish the rhythms of normal and damaged hearts by touch, rather than by sound. “Blue baby” syndrome is caused by a defect that prevents the heart from receiving enough oxygen. Taussig used a new x-ray technique to determine that these babies had a leak in the wall that separates the chambers of the heart. The surgical technique to repair the leak is today referred to as the Blalock-Taussig operation. She received many awards including the Presidential Medal of Freedom for her work.

The health of infants was also of great interest to our next featured doctor. In 1952,



Dr. Virginia Apgar developed a series of rapid checks to use on newborn infants to determine if the babies needed medical attention. The Apgar score, the first standardized method for evaluating a newborn's transition from the womb, is now administered in hospitals around the world at one minute and five minutes after birth. Each of five factors Appearance, Pulse, Grimace, Activity, and Respiration (APGAR) receives a score of 0, 1 or 2. The maximum score a baby can receive is 10 and the minimum is 0.

Apgar wanted to become a surgeon, but had been discouraged from doing so by the chair of surgery because of his forecast that she would not be able to establish a successful career. Instead, she became an anesthesiologist. After she earned a master's degree in public health in 1959, she left private practice and devoted herself to the prevention of birth defects through public education and fundraising for research at the March of Dimes.



Like Dr. Apgar, **Dr. Joycelyn Elders** works in the public sector. Elders is a pediatric endocrinologist and expert on childhood sexual development. After serving as the Director of the Arkansas Department of Health, she was appointed by President Clinton as the U.S. Surgeon General of the Public Health Service in 1993. She was the first African American to serve in the position. As Surgeon General, Elders argued the case for universal health coverage, and was a spokesperson for President Clinton's health care

reform effort. She was a strong advocate for comprehensive health education, including sex education, in schools.



Although early in the 20th century, Dr. Virginia Apgar was advised against becoming a surgeon, **Dr. Susan Love** has been able to forge a successful career in surgery. She is a breast cancer surgeon who wrote *Dr. Susan Love's Breast Book*, which is both highly respected and now the standard text reference in the field. This authoritative guide explains the latest breast cancer science and provides essential information women need to make decisions about breast cancer treatment and prevention. The book provides needed information in

ways that a woman who has questions can easily access.

Love also established the Dr. Susan Love Research Foundation, whose mission is to eradicate breast cancer and improve the quality of women's health through innovative research, education, and advocacy. While advances have been made in the diagnosis and treatment of breast cancer, we still don't understand what causes breast cancer or how to prevent it. The Dr. Susan Love Research Foundation is dedicated to getting to where breast cancer begins—in the breast ducts—and its research is focused on the anatomy of the breast and breast cancer prevention.

Today, we can go to see a woman doctor – thanks to the efforts of pioneers and physicians including the women profiled in this article.



Charlotte S. Waisman, PhD, co-author of *Her Story: A Timeline of the Women Who Changed America* (HarperCollins), is a national champion and advocate for women as a professor and keynote speaker. As an executive coach, Waisman coauthored *50 Activities for Developing Leaders* and *The Leadership Training Activity Book*. She is a principal with a consulting company specializing in leadership and workforce excellence initiatives.

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