

One Woman/Every Baby: At a time when few women even attended college, Virginia Apgar graduated from Mt. Holyoke College with a major in zoology. The year was 1929. Four years later, she received her M.D. from Columbia University College of Physicians and Surgeons, graduating fourth in her class of sixty-nine men and three other women. Columbia, established in 1767, did not admit women until 1917. One of the first females to specialize in surgery, Apgar won a surgical internship at Columbia Presbyterian Hospital where her surgical skills excelled.

When she completed her residency in 1937, women didn't do, and weren't welcome to do, surgery. After two years devoted to establishing a surgical practice in a chauvinistic culture, it appeared Apgar would not succeed. In an unofficial agreement, male physicians limited professional participation of female medical doctors. Apgar was a single woman, her family was not wealthy, it was the Depression, and she needed to support herself. Adhering to gender realities, Dr. Alan Whipple, chair of surgery at Columbia, directed her to practice in anesthesiology, which then was relegated to the domain of nursing, not recognized as a medical specialty, and was predominately female.

Apgar entered this emerging field in the first department of anesthesia in the United States, at the University of Wisconsin-Madison greeted by gender discrimination as housing facilities were provided only for men. Women had to seek and secure their own. After Madison she completed a six-month anesthesia internship under Dr. Ernest Rovenstine at Bellevue Hospital, NY.

Dr. Apgar returned to Columbia in 1938 as director of the anesthesia division but encountered a surgical ceiling when soliciting physicians to this new field of medicine. Female anesthesiologists were not accepted as equals by male surgeons and anesthesiology was not respected as an equal specialty. Pay was lower and well-paid male surgeons, not willing to willingly accept unequal pay for equal work, did not choose to specialize in anesthesiology. Dr. Apgar, only the second woman to receive Board Certification from the American Society of Anesthesiologists in 1939, was the only department member well into the 1940's.

Residency requirements for this newly acknowledged medical specialty was not established until 1946. The division of anesthesia at Columbia did not become a department of research until 1949 when its director, Dr. Apgar, became the first woman to be appointed a full professor at the Columbia University College of Physicians and Surgeons.

Dr. Apgar's seminal contributions in the development and advancement of anesthesiology are without equal. Her pioneering contributions in the acceptance of women doctors sliced open the surgical ceiling. But her foremost medical contribution was for children, literally every child born in a medical institution since 1949 when many changes were taking place all across the United States. More babies were being born (the Baby Boomers) and they were being born in hospitals at a greater rate than ever before. As never before, statistics were being recorded producing data that the first twenty-four hours after birth held the highest infant mortality risk.

Previously, newborn babies were considered to be healthy unless they exhibited a birth defect that was obvious. Now, in a hospital delivery room, the newborn baby was considered as a second patient to be evaluated for risk. Intent on the problems of birth

defects, Apgar devised a newborn scoring system that measured five vital signs: heart rate, respiratory rate, reflex reaction, muscle tone, and tone of skin color.

In her 1949 study that included 1,760 infants, Apgar collected data which she supported in a 1958 follow-up study of 15,348 infants. Her findings validated immediate birth diagnoses identifying newborns at risk. This allowed for expeditious treatment in the hospital nursery. Her scoring system became known as the APGAR Score, the newborn scoring system now common practice at one and five minutes after birth.

A ppearance (skin color),
P ulse,
G rimace (reflexes),
A ctivity (muscle activity) and
R espiration (breathing)

The Apgar Score has saved countless lives and is a standard worldwide. “Every baby born in a modern hospital anywhere in the world is looked at first through the eyes of Virginia Apgar.”

In 1974, Dr. Apgar died in her sleep at age 65. In 1994, she was pictured on a U.S. postage stamp as part of the Great Americans series and in 1995 was inducted into the National Women's Hall of Fame in Seneca Falls, New York.

Because she was a woman, Dr. Apgar was unable to be a surgeon albeit, she is unable to be surgically removed from the annals of foremost medical progenitors because she was a woman, discriminatively operational.

Sources: www.greatwomen.org (National Women's Hall of Fame)

<http://inventors.about.com/gi/dynamic/offsite.htm?site=http://apgar.net/virginia/SELLER%5FPAPER.html>

http://www.nlm.nih.gov/changingthefaceofmedicine/physicians/biography_12.html