Harold Delf Gillies (1882-1960) [1]


Harold Delf Gillies performed one of the first sexual reassignment surgeries, termed gender affirmation surgeries as of 2022, on record in 1946 in London, England. He also practiced modern plastic surgery and helped distinguish it as a new branch of medicine in London, England, starting in the early 1900s. Gillies's work focused initially on facial reconstructive surgery, particularly during both World War I [8] and World War II. Gillies created newer and more efficient techniques that later became standard procedures for reconstructive and cosmetic surgeries.

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Gillies was born in Dunedin, New Zealand, on 17 June 1882 to Emily Street and Robert Gillies. He was the youngest of eight children and his family spent most of his childhood in rural areas where he fished and rode horses. Gillies's father died days before his fourth birthday. Shortly after, his mother moved the family to Auckland, New Zealand. In 1888, he moved to England to attend a preparatory school for four years. He returned to Auckland briefly before attending Whanganui Collegiate School in Whanganui, New Zealand, for his secondary education from 1895 to 1900 where he competed in cricket, golf, and rowing. Selim Gebran and Arthur Nam, surgeons who wrote a biographical article about Gillies, wrote how Gillies was also an avid painter and artist and that his artistic work helped him grow as a plastic surgeon because of his eye for aesthetics.

Gillies participated in various collegiate sports and won numerous athletic awards. After he graduated from Whanganui Collegiate School in 1900, he studied at Gonville and Caius College, Cambridge University [9], in Cambridge, England. There, he won blue, a designation earned by university athletes for competition at the highest level, for rowing in the Boat Race 1904, an annual side-by-side rowing race between the Universities of Oxford and Cambridge along the River Thames. Gillies also won blue for golf in 1903, 1904, and 1905 and continued competing in golf at the amateur level for the first two decades of his medical career.

Gillies studied medicine at Cambridge University [9], starting in 1901 and graduating in 1904. He then completed his clinical training at St Bartholomew's Hospital in London, England. Once Gillies completed his training, he received his medical degree and became a practicing physician. Andrew Bamji, a consultant physician and archivist of Queen Mary's Hospital in London, England, notes that Gillies was recognized as the best surgeon who worked regularly at St Bartholomew's Hospital in his time. By 1910, Gillies became a Fellow of the Royal Colleges of Surgeons, or FRCS, a professional qualification to practice as a senior surgeon in Ireland and the UK. Gillies worked as an assistant to an ear, nose, and throat surgeon, Milsom Rees, at St Bartholomew's Hospital. On 9 November 1911 Gillies married Kathleen Margaret Jackson. The couple had four children together between 1912 and 1920.

When the World War I [8] began in 1914, Gillies was still working alongside Rees, but by 1915, he volunteered and served with the Royal Army Medical Corps [10], RMC. He was stationed in Wimereux, France, as a Surgeon General, the highest rank for a military medical officer and the most senior uniformed medical officer in the British Armed Forces. As part of the Army Medical Services, the RAMC coordinated large-scale solutions in response to the varied and numerous traumatic injuries. While posted to Wimereux, France, Gillies met Auguste Charles Valadier, a dentist of French and American origin who pioneered maxillofacial surgery, which includes operating on teeth, jawbones, and soft tissues of the face. Gillies then visited Paris, France, to meet Hippolyte Morestin, a surgeon treating injuries of the face and jaw in France. While Gillies watched, assisted, and worked alongside Valadier and Morestin, he learned surgical techniques that he later implemented in reconstructing facial structures on patients who sustained facial injuries in trench warfare. During his time in France, Gillies noted there was no available treatment specialized enough to help the wounded soldiers seen by Valadier and Morestin, something that changed when he returned to England in the following years.

In 1915, Gillies moved, under orders, to England where he continually petitioned the War Office to have a specialized unit for reconstructive surgery. On 11 January 1916, at the Cambridge Military Hospital, Aldershot, England, he began commanding one of the first plastic surgical units. After the first day of the major battle of the Somme, 1 July 1916, it was clear that the units at the hospital did not have enough room nor beds to treat the soldiers in need. Gillies lobbied and gained support from the head of army surgery for a much larger facility to treat all facial injuries. According to Bamji, Gillies argued that if they could consolidate the treatment of these types of wounds and had specialized surgeons to treat them, they would be able to make scientific advances and treat patients more effectively because of the experience and knowledge they would gain from collaborating.

In June 1917, Gillies's vision came to life when The Queen's Hospital, called Queen Mary's Hospital as of 2022, opened with over a thousand beds available on-site and dozens of surgeons devoted to improving the techniques of reconstructive surgical practices. Gillies worked closely with two anesthetists, or physicians who administer anesthetic drugs that induce insensitivity to pain, who assisted in surgeries as well as recovery to make the process less painful for the patients. One of them, Rubens Wade, primarily worked with patients who needed to be seated during the operation, usually if there was injury to the base of the head or back of neck. The other, Ivan Magill, pioneered endotracheal anesthesia, where the insertion of a plastic tube into the trachea creates an artificial extension through which the patient can breathe and the physician can administer anesthetics. This kept the equipment used to anesthetize the patients clear of the operating table and did not interfere with surgeons' aseptic techniques.

In 1920, two years after the war ended, Gillies became a Commander of the British Empire, a British order of chivalry, rewarding contributions to the arts and sciences nationally or regionally. In the same year, Gillies also published his first book, Plastic Surgery of the Face, a training manual for surgeons wishing to specialize in the area. The book illustrates techniques he employed, such as skin grafts, body tubes, and prosthetics. It also reminds the reader that the intensive surgeries were only possible because of antisepic practices and anesthesia. Gillies included successful results as well as his results that were not immediate or varied in success. Doing so provided the progression of the
In 1957, Gillies published two books, *The Principles and Art of Plastic Surgery, volumes I and II* in collaboration with David Ralph Millard, Jr., a plastic surgeon from the United States who studied under him. The book was an exploration of Gillies’s life and time as a plastic surgeon, ranging from his beginnings to the two World Wars he worked through, and what techniques he learned, created, and taught. Other chapters of the book include approaches to and techniques used in hand surgery, as well as treatments for lymphedema, a condition where extra lymph fluid builds up in tissues and causes swelling, congenital deformities, skin tumors and genital lesions. A review of the volumes in the *Journal of the American Medical Association* explains that Gillies’s books may be called textbooks but that they are engaging like fairytale stories while still being of historical and practical importance to the field of plastic surgery.
Gillies made many contributions to the field of plastic surgery, particularly in facial reconstructive surgery and what is called gender affirmation surgery as of 2022. His books became required reading at universities and medical programs globally, and the techniques he discovered and practiced during World War I [8] and World War II have set the standard for many procedures in the discipline. The Danish and Norwegian governments decorated Gillies for his aid in both wars, and he became an Honorary Fellow of the Royal Australasian College of Surgeons, the American College of Surgeons, and the Royal Society of Medicine, London. In 2005, the association of plastic surgeons, which Gillies built, changed its name to the British Association of Plastic, Reconstructive and Aesthetic Surgeons, or BAPRAS. The renaming of the association brought with it an understanding that the discipline had grown and changed, continuing to advance education but adding a second emphasis on understanding the modern practice.

Gillies’s wife died on 14 May 1957, and in the same year, he married Marjorie Ethel Clayton, who he had known for many years as his surgical assistant in London, England.

Gillies died at The London Clinic in London, on 10 September 1960 after suffering a mild stroke while performing a major operation on a damaged leg the previous month.

Sources

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