

## HISTORY OF PLASTIC SURGERY: ROAD TO NEW ORLEANS

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Simplistically: Plastic Surgery is the surgery of deformities, both genuine and perceived. Reconstructive surgery's aim being the return to normalcy and cosmetic surgery's goal being to actually improve the normal. The definition of the word "plastic" comes not from plastic as commonly thought of, but from the word "plastikos," a Greek word that means to mold, build or to reconstruct.

Historically, plastic surgery can be traced to the pre-Christian era and back, as far as early Judaism when Rabbis first performed circumcisions. However, with the rise of Greek culture, we find that certain surgeons, particularly in Egypt, began to perfect a reversal of the circumcision procedure either to negate a Judaic origin or to return the human body to its normal form.

Facial reconstruction can be traced back to pre-Christian era when thieves and captured slaves had their noses cut off as a sign of punishment and/or mark. Surgery for reconstruction of the nose was started by the Koomas, a cast of potters. The procedure was adopted by the Persians, Greeks, Arabs, and Nestorian Eastern Christians to Rome and persisted through many centuries and was rediscovered by the English in the 19th Century.

Celsus was a Greek writer, between 25 B.C. – 50 A.C. and is the one who gives us the first written account of the use of "flaps" to reconstruct bodily injuries.

A Roman by the name Galen, (130 A.D. – 200 A.D.) is well known for his surgical capabilities. He was a physician to the emperor as well as the surgeon for the gladiators. His writings in medicine and surgery are so voluminous that they were quoted for centuries and were even translated into Arabic texts.

Paulus Aeginata, was one of the originators of Roman plastic surgery, (625 A.D. – 690 A.D.). He performed many surgical procedures of the nose, jaw, utilizing both Galenic and Arabic methods of surgical reconstruction of the face.

The decline of the Roman Empire and beginning of the Dark Ages saw, for the Western Empire, the loss of these medical advancements. However, the rise of Islam kept many of these surgical practices alive and flourishing in the East. During the Crusades, Europeans began to be aware of the Islamic and Eastern methods of medicine and surgery and these "new" techniques were incorporated into the Order of Hospitalers. This group was a subset of the Knight Crusaders and they established castles throughout the area of the Byzantine and Turkish Empires to treat the Crusaders.

The Renaissance, in the 16th Century saw the rebirth of Western civilization, and from North Africa, through Sicily, and Italy, there began a cultural and medical enrichment. This included surgical procedures to help the many wounded and mutilated men of the recurring wars.

Ambrose Pare', father of modern surgical techniques, pioneered new methods of wound-healing. He revolutionized the treatment of wounds by ceasing the widely practiced technique of treating open wounds with boiling oil. Instead he treated these wounds with clean, daily dressing changes as well as ligatures of the bleeding vessels.

Gaspare Tagliacozzi was considered truly the first plastic surgeon and wrote an extensively on the use of arm tissue for facial reconstruction.

The 17th and 18th century medical advancements again fell into decline. During this era, surgical procedures were relegated to barber surgeons and the surgeries that were most often performed were related to "cutting for bladder stone."

The rebirth of plastic surgery begins with the advances in surgery during the late 18th Century. The plastic surgery era begins in 1794 when Mr. Joseph Carpue reads in "Gentlemen's Magazine" of London, a letter which describes the Indian

Nasal Reconstructive Method. He does exhaustive studies of this technique and begins to practice the operative procedures in England. The procedure is adapted in Europe as well as the Tagliacotian Method and practiced throughout the Napoleonic Wars (1804 – 1815). This is a period of heroic, fast surgeons where surgery is performed without the use of anesthesia and many new instruments are developed.

Van Graefe, (1818) started performing facial reconstructive procedures in Germany. Delpech, in France, described further surgical refinements and procedures for multiple facial and nasal reconstructions (1823 – 1828). Dieffenbach (1845) described multiple procedures of cleft palate surgery. Labat and Blandin, in 1836, wrote one of the first surgical texts on facial reconstruction, "Traite sur L'art de Restaurer Difformites de la Face". Dupuytren (1832) wrote multiple articles on Hand Reconstructive Procedures. It was during this period, that the term "plastique-plastik" was coined for reconstructive surgery. This is credited to Zeis in Germany and Jobert in France. Reverdin (1869) during the Franco-Prussian War developed pinch grafts. Teirch, Ollier, Lawson & Wolfe (1872-1975) developed full thickness grafts, split thickness, and composite grafts.

The 20th Century is the era when plastic surgery is born, flourishes and established as our own specialty. This occurred out of the unfortunate necessity of World War I, (1914 – 1918). Because of the uniqueness of trench warfare, this war created horrible facial wounds and deformities. For the French Army, Hippolith Morestin, from the Island of Martinique, established trauma centers throughout the front lines. He developed the Z-plasty technique, release of contractures and wide undermining for skin closures. He demonstrated his techniques to many English and American surgeons. Sir Harold Gillies, an Otolaryngologist from New Zealand, is the father of modern plastic surgery. He developed tubed flaps, new and innovative surgical techniques for multiple reconstructive procedures of the face and body. Kazanjian, an oral surgeon studied under Gillies, as did Vilray Papin Blair, a surgeon from the U.S.A. These men brought plastic surgery to the United States and Blair wrote the first American textbooks in plastic surgery.

In the period that followed World War I, the newly learned techniques were applied to civilian practice of facial reconstruction.

With birth of reconstructive plastic surgery and its attempt at restoring normal, it wasn't long before people desired to "improve" normal and cosmetic surgery was born.

The first in this new area are Jacques Joseph in Vienna, John Staige Davis and Ferris Smith in the U.S. and Jacques Dufourmentel of Paris. In 1938, the American Board of Plastic Surgery was formed.

The scope and tragedy of World War II brings maturity to the specialty. This war offers new injuries such as facial burns, bodily wounds, nerve injuries and extremity injuries. The war, because of its immensity, creates the need for many more reconstructive plastic surgeons and new training centers are created by the Army and Navy. These training programs were the forebearers of the present day residency programs we have currently.

Plastic has become a well defined specialty but we have been called – "the stray dogs of surgery" – because over the years, we offered procedures and hope to patients and their problems which no one else would tackle. We perfected them, achieved excellent results but collectively as a specialty; never satisfied. We are pioneers.

During the 1920's plastic surgery began in New Orleans. Dr. Waldmar Metz, who trained in St. Louis, New York, and London with Sir. Harold Gillies became the first trained Plastic Surgeon to establish himself in our city. Dr. Metz became a clinical professor and Chief of Plastic Surgery at LSU until his death in 1953. Dr Neal Owens was the second trained Plastic Surgeon to practice in New Orleans. He was a trainee of Dr. John Stage Davis and Dr. Harold Gillies. Dr. Owens was one of those aggressive innovators of Plastic Surgery, establishing the first training program in New Orleans and his preceptors are an honor roll of organized Plastic Surgery. Dr. Carl Wall, another Plastic Surgeon who also trained with Sir Harold Gillies, established his practice in 1939 which remained for 30 years. Finally, Dr. Richard Vincent, whose practice I was privileged to continue, was Chief of Plastic Surgery at Tulane University from 1960-1968 and was Clinical Professor until the time of his death in 1971.

Dr. George Hoffman was the first Professor of Plastic Surgery at LSU. Dr. Robert Ryan, was full Professor of Plastic Surgery at Tulane University and is now a Professor in Emeritus. Dr. Duncan McKee, was the first Head of the Department of Plastic

Surgery, at the Ochsner Foundation Hospital and Dr. Robert Mead was one of the Senior Plastic Surgeons, one of the founders of the Owens-Meed Clinic, and a founding member of the South Eastern Society of Plastic Surgeons. Dr. Delio Delgado, Clinical Professor of Plastic Surgery at Tulane and consultant of plastic surgery at Carville, remains the sole surviving first generation of Plastic Surgeons in the city of New Orleans. We follow in the footsteps of these great leaders and innovators of Plastic Surgery for they are the ones who established our specialty within this community and it is to them that we owe a great debt of thanks.

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