

Plastic Surgery: Highlights



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Plastic Surgery is considered to be both a challenging and fascinating surgical specialty that gained extreme popularity in scientific circles as well as in the media for the past three to four decades for many obvious reasons. Human beings are always fascinated and deeply interested in the way they look and present themselves to the world. Moreover, the concept of beauty remains at the center of all “forms” and “creation”. Egyptians, Babylonians, Romans, Indians...etc. All performed several surgical operations on the human body to repair a defect or alter the form of some of its parts. “Form” and “function” are currently the main components in plastic surgery operations.

“Plastic” is a word derived from the Greek word: “Plastikos” which means “fit for molding or changing its form”. The term was first used in 1798 by the French anatomist and surgeon Pierre-Joseph Desault to refer to surgery to alter the form and configuration of tissues. The German surgeon Eduard Zeis famous for the book: “The Handbook of Plastic Surgery” popularized the term in 1838. Plastic Surgery today is a surgical specialty that performs **Reconstructive** (correction of various deformities) and **Aesthetics** (Improve on cosmetic appearance of the human body). The differentiation in the terms is absurd as both are an integral part of the training and study that surgeons undergo to become Plastic Surgeons.

Plastic Surgery has evolved rapidly since the famous rhinoplasty performed at the end of the 19th century. The specialty uses both art and science to help patients with

deformities and malfunction improve their lives. Plastic Surgeons deal with the following:

- a- Repair of all types of wounds including coverage of large skin defects occurring after trauma or tumor excision. This can be done using various techniques including microsurgery and transplantation of skin muscle or organ (hand and face).
- b- Repair & Reconstruction of all facial fractures, as well as cosmetic surgeries performed on the skeletal bones of the face.
- c- Surgery of all types of burns as well as functional restoration of functions after the burns have healed.
- d- Replantation surgery is performed to re-implant lost digits or limbs. Lately facial transplant was also performed by plastic surgeons in the USA
- e- Hand surgery is a share subspecialty with Orthopedics surgery and includes fractures reconstruction of the hand as well as tendons, nerves and vascular repairs in the upper limbs.
- f- Reconstruction of congenital anomalies including cleft lip and palate, congenital malformations of the facial skeleton and skull, coverage for meningo-myelocele and repair of congenital hand deformities.
- g- Surgeries for difficult chronic wounds repair of congenital anomalies (like cleft lip and palate) and re-implantations constitute some of the most challenging reconstructive.
- h- Aesthetic procedures include breast augmentation, lifting and reduction; body contouring surgery including tummy tuck and liposuction, rhinoplasty, face lift, blepharoplasty, otoplasty....etc. These cosmetic procedures gained wide popularity at the turn of the last century. With the technical advances made in the industry of many implantable solutions and material, Aesthetic Surgeries were further divided into Invasive (Involving a surgical operation) vs. Non-Invasive procedures (like Botulinum Toxin and filler material injection).

The popularity of Aesthetic surgery continued to grow over the end of the twentieth century. According to the International Society of Aesthetic Surgery, Botulinum Toxin to correct wrinkles remains the most popular

cosmetic procedure performed in the world. The United States held the top spot for total number of surgical procedures performed. The top five countries which performed the most surgical and nonsurgical procedures were the United States, Brazil, South Korea, India and Mexico. In the USA the number of reconstructive surgeries in 2015 reached around 6 million surgeries as compared to 16 million cosmetic invasive and non-invasive procedures. Since 2000, the overall number of procedures have risen 115 percent!

A number of challenges continue to face the plastic surgery specialty including: changing concepts of beauty, media pressure, Aesthetic surgeries performed by non-plastic surgeons, safety of implantable material and lack of education among patients regarding the choice of the right surgeon and understanding the outcome and limitation of the surgical act. The craze for Plastic Surgery caused a number of physicians from other specialties to start performing several types of plastic surgeries. Non-physicians also started slowly performing some non-invasive procedures as well. **The safety of the patients in these cases might be jeopardized when the physician is not well trained to deal with the possible complications of these procedures.** It is essential for the patients to make wise decisions when choosing what to do and where to do it. The typical Plastic Surgery training around the world is composed of three years in the general surgery and three years in the plastic surgery. Moreover, several subspecialties of one or two years afterwards are well recognized and these include: Maxillofacial Surgery, Aesthetic Surgery, Hand Surgery, Burns and Microsurgery. Physicians with accredited training are usually members of National and International Societies and are the most capable to help the patients seeking Plastic Surgeries. It is empirical for all patients seeking any reconstructive or aesthetic procedure to understand who is performing the surgery, the limitations of the procedure, alternatives, expected results and possible complications. All plastic surgeries are not magic and may occasionally cause serious problems especially when inadequately performed by non-qualified physicians.

Social pressure, Media and the common availability of certain procedures have occasionally helped to spread skewed number of beauty norms. For Plastic Surgeons, these problems constitute a major challenge in their current practice. Moreover, the undesirable effects of poorly performed surgeries, and ineffective procedures continue



to pose a threat to the specialty as a whole. **The secret to the satisfied patient and surgeon is when the patient's expectation meets the capabilities of the surgeon to perform the desired change in a safe manner using recognized standards of practice.**

Despite all the challenges, the specialty continues to grow and the outcome of reconstructive and aesthetic surgical procedures continues to excel as the number of patients grows. Patients are more demanding and seek more refined techniques of Plastic Surgeries. With the advances in microsurgery, transplantation, stem cell science, Laser technology, safety of injectable material and implants; the Plastic Surgeons have further enriched their armamentarium of acts to include a large number of options available to achieve a well-accepted cosmetic result in a safe environment and with results well accepted and appreciated by their patients. Plastic Surgeons will always use their artistic skills, delicate surgical techniques, and human compassion to help their patients positively change their lives forever.