

# PLASTIC SURGERY: A Guide for Medical Students

A joint venture between BAPRAS and PLASTA

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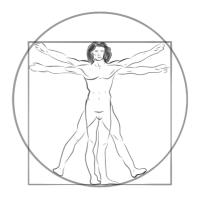
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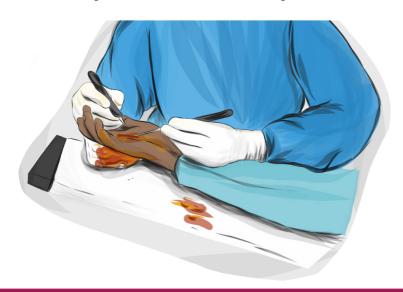


#### What is Plastic Surgery?

Plastic surgery is the restoration of form and function. It is an artistic form of surgery and requires an appreciation of human anatomy, meticulous surgical technique and great attention to detail. Plastic surgeons are not restricted by anatomical area and have skills allowing them to work on all parts of the human body. This makes plastic surgery an excitingand varied area of medicine to work in. Plastic surgeons are as diverse as plastic surgery itself, as equality in race and gender is at the heart of the specialty.



The term plastic surgery comes from the Greek 'plastike' which means 'to mould'. Plastic surgery is commonly misconceived by members of the general public to be solely concerned with breast augmentation and facelift procedures. Plastic surgeons do perform these cosmetic procedures, although mostly in the private healthcare sector. In the NHS setting, the majority of work for plastic surgeons involves reconstructive procedures for conditions resulting from trauma, cancer or congenital abnormalities.

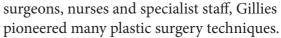


#### A History of Plastic Surgery

Plastic surgery techniques originated thousands of years ago and records of nasal reconstruction can be found in ancient Egyptian records from 3000- 2500 BC. Plastic surgery in Britain was formally established during the First World War. The brutal nature of trench warfare caused terrible head and facial injuries among soldiers on both sides of the conflict, with bullets and explosive shells causing mutilation on an unprecedented scale.

Up until this point, there were surgeons who performed reconstructive and grafting procedures alongside more general surgery, but none who specialised in these areas.

It was Major Harold Gillies from New Zealand, serving in the Royal Army Medical Corps in France, who saw the value of a dedicated reconstructive surgical discipline, and who helped to establish a centre devoted to facial repair at the Queen Mary's Hospital in Sidcup, Kent. Here, with a team of





Widely considered to be the 'father of British plastic surgery', Gillies was knighted for his services in 1930. In 1944 Sir Harold Gillies founded the Association for Plastic Surgery, now known as BAPRAS (British Association for Plastic, Reconstructive and Aesthetic Surgery).

#### A Day in the Life

There is no such thing as an average day in plastic surgery as each day tends to be different, and every operation is different, with even the most basic operations requiring creative thinking and problem-solving. Typically, a day might start at 8am with a trauma meeting so that the patients assessed over the past 24 hours can be discussed.



Plastic surgeons and their registrars operate 2-3 days per week. These operating sessions contain a mix of trauma and elective (planned) procedures. The other days may consist of a combination of outpatient clinics, inpatient ward rounds, departmental teaching, or multi- disciplinary meetings (due to the crossover of many plastic surgical sub-specialties with other teams).



Plastic surgery operations revolve around the reconstruction of tissue defects and in order to achieve this, plastic surgeons utilise specialised techniques such a skin grafts and flaps. Microsurgery describes the process of joining together very small arteries and veins to restore the vital blood supply to a piece of living tissue. The art of microsurgery and free tissue transfer is a central part of the specialty and has enabled plastic surgeons to perform reconstructive procedures that would previously have been thought impossible.

### **Subspecialty Areas**

The bread-and-butter subspecialty areas are hand surgery, burns management, and skin cancer surgery. However, plastic surgery is almost infinitely broad, and each plastic surgery department in the country offers a unique mix of subspecialty areas. The common theme is that all require an appreciation of soft tissue handling and reconstructive skills for managing challenging tissue defects.

Some examples of common subspecialty areas of plastic surgery are ear reconstruction, head & neck cancer, cleft lip/palate surgery, lower limb reconstruction, sarcoma, breast reconstruction, chest wall reconstruction, brachial plexus, congenital hand surgery, genitourinary reconstruction, and craniofacial surgery. Aesthetic (cosmetic) surgery is an integral part of the training curriculum, but this work is mostly performed in the private sector.

It is probably clear from this list that plastic surgeons crossover with almost every other surgical specialty, and some medical specialties. For example hand surgery is shared with orthopaedic surgery and skin cancer surgeons work closely with dermatologists and oncologists, to name but a few.

Plastic surgeons are trained to work as part of multi-disciplinary teams and this is what makes plastic surgery so interesting and dynamic.



### **Career Preparation**

Plastic surgery is a competitive specialty because it is a great area of work and so this competition should encourage you rather than put you off.

One of the trickiest things about preparing for a career in plastic surgery is figuring out what it is exactly, and whether you want to do it! Most medical schools do not offer a formal rotation in plastic surgery and some may not even be associated with a plastic surgery department. Therefore it is important to try to gain some work experience by doing 'taster rotations' or electives in plastic surgery. During these rotations, speak to as many consultants and registrars in plastic surgery as you can as they may all have quite different day-to- day routines, subspecialty areas, and personalities from one another, and may have quite different views about how to approach your training.

BAPRAS organise medical student days around the country which consist of lectures and practical sessions to introduce you to different aspects of plastic surgery. Keep a look out on the BAPRAS website for these days each year.

Before applying to plastic surgery, you will need to complete Core Surgical Training, which will help improve your basic surgical skills and acute management of surgical patients, but it's worth starting to focus on gaining these skills during your final years of Medical School and Foundation Training. To be in a strong position to apply for plastic surgery training at ST3 interviews you will need to demonstrate evidence of clinical experience in plastic surgery, audit, teaching, leadership, academic prizes, presentations and publications. For more details of exactly what is required you can find the person specification on the Health Education England website and get ahead of the game.

## **Opportunities during Training**



Plastic surgery specialty training is 6 years in duration (ST3-8) in one of the 12 deaneries around the UK. During this time you will rotate round different units in the deanery in order to gain experience in various subspecialty areas of plastic surgery. During this time there are also lots of opportunities that you can make the most of including:

- Educational courses to enhance knowledge and skills
- Research and Innovation is highly valued in plastic surgery and there are opportunities to take time out for this before, during or after plastic surgery training. Check out the RSTN (reconstructive surgery trials.net) for an idea of the latest developments in plastic surgery research and how to get involved.
- Plastic surgery conferences offer the opportunity to network with world experts and for you to present your own work (you can make a start as a medical student!)
- Fellowships offer the opportunity for you to go and work in plastic surgery units outside of your training region in the UK or abroad.

PLASTA is the plastic surgery trainee organisation and you can keep up to date with developments and opportunities in plastic surgery training on their website www.plasta.org.

## Plastics in the Developing World

Plastic and reconstructive surgery has a long and close relationship with global surgery in the developing world. For many decades, plastic surgeons have been involved in providing reconstructive surgical procedures to populations in need. Areas of involvement are broad and may include patients with cleft lip and palate, patients with burns or patients with deformities of the hand to name but a few. As plastic surgery is a subspecialty area, surgeons in low and middle-income countries may not have had training to manage these patients. There is therefore a great need for training and development of services in global reconstructive surgery. Involvement in this field can be extremely rewarding and gratifying.



There are many organisations in the UK involved with global reconstructive surgery. BFIRST (British Foundation for International Reconstructive Surgery and Training) is associated with BAPRAS and has a trainee committee with medical student representation to promote engagement with global surgery (bfirst.org.uk/professionals/ trainees). BAPRAS additionally offers medical student elective bursaries.

#### **Further Information**

More information about plastic surgery and surgical training in the UK can be found at the following:

- BAPRAS (www.bapras.org.uk)
- PLASTA (www.plasta.org)
- RCS England (www.rcseng.ac.uk)



British Association of Plastic Reconstructive and Aesthetic Surgeons









