

Career Resources

Career development resource for plastic and reconstructive surgery

KEYWORDS:

Plastic and reconstructive surgery;
Plastic surgery residency;
Cosmetic surgery training;
Aesthetic surgery training;
American Board of Plastic Surgery

Abstract. Plastic surgery is a broad-based discipline with emphasis on areas such as breast, craniomaxillofacial, burn, aesthetic, and hand surgery as well as complex wounds and wound healing. Plastic surgery as a specialty captures a great deal of media attention over many other fields of medicine, so education, training, and credentialing have become an area of national interest. The purpose of this article was to provide information on the organization, basic requirements for training, fellowship, and volunteer opportunities within the specialty.

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The American Board of Plastic Surgery, Inc was organized in June 1937 by representatives of various groups interested in this type of surgery and received recognition as a subsidiary of the American Board of Surgery in May 1938. The American Board of Plastic Surgery, Inc was given the status of a major specialty board in May 1941 by action of the Advisory Board for Medical Specialties as approved by the Council on Medical Education of the American Medical Association. Plastic surgery is a broad-based discipline with emphasis on areas such as breast, craniomaxillofacial, burn, aesthetic, and hand surgery as well as complex wounds and wound healing.¹ Areas of technological research in the field include fetal wound healing, stem cells, and tissue regeneration. Plastic surgery as a specialty captures a great deal of media attention over many other fields of medicine, so education, training, and credentialing have become an area of national interest. The purpose of this article is to provide information on the organization, basic requirements for training, fellowship, and volunteer opportunities within the specialty.

Training Requirements

Residency requirements

There are 2 major pathways toward obtaining acceptable graduate level training in plastic surgery including the independent model and the integrated model. In an independent model, the resident must complete both full prerequisite general surgery training and requisite training in plastic surgery. A minimum prerequisite of 3 years of clinical training in general surgery in the same program used is required. Now, the independent program requires full prerequisite training, so the 3 years of general surgery is not accepted. The independent program in plastic surgery is now 3 years long, and the integrated is 6. Broad surgical training experience is required. Prospective candidates may have also completed an accredited residency training program in neurosurgery, orthopedic surgery, otolaryngology, or urology. Satisfactory completion of a residency program in oral and maxillofacial Surgery approved by the American Dental Association is an alternate pathway for prerequisite training before plastic surgery residency.¹

Information concerning accredited training programs for both the independent and integrated Models may be found in the *Directory of Graduate Medical Education* (“the green book”) published by the American Medical Association (AMA). Copies of the directory are available at most medical school libraries, and the information is also available online at the AMA’s Fellowship and Residency Electronic

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Interactive Database at <http://www.ama-assn.org/ama/pub/category/2997.html>.

The Residency Review Committee for Plastic Surgery inspects and makes recommendations for or against the approval of a residency training program in plastic surgery only after the director of the residency has filed an application for approval by the Residency Review Committee.

In an integrated model, residents must have a medical or osteopathic degree granted in the United States or Canada by an institution accredited by the Liaison Committee for Medical Education or the American Osteopathic Association. Training of 6 years of clinical residency under the authority and direction of the plastic surgery program director is required. No less than 2 years of this program must be concentrated plastic surgery training, and the final 12 months must entail senior clinical responsibility. Although there are certainly both independent and integrated models of training available, there is a growing trend toward matching competitive candidates out of medical school into integrated programs.¹

Residency Requisite Training: Graduate Education in Plastic Surgery

Three years of plastic surgery training is required, and the final year must be at the senior level. Residents entering a plastic surgery residency accredited for 3 years of training must complete the entire 3 years, including 1 year of senior responsibility. Training in plastic surgery must be obtained in either the United States or Canada. Training in plastic surgery must cover the entire spectrum of plastic surgery and include experience in both the functional and esthetic management of congenital and acquired defects of the head, neck, breast, trunk, and extremities.

This period of specialized training should emphasize the relationship of basic science (anatomy, pathology, biochemistry, and microbiology) to surgical principles fundamental to all branches of surgery and especially plastic surgery. In addition, the training program must provide in-depth exposure to the following subjects: emergency care, shock, wound healing, blood replacement, fluid and electrolyte balance, pharmacology, and anesthetics. Programs that offer graduated, hands-on operative experience and responsibility for trainees are important in the training of a competent, independent plastic surgeon.

Board Certification

The Board conducts 2 types of examinations: written and oral examinations. The written examination is given in the fall each year and consists of multiple clinically oriented case-based questions. The examination is administered via computer at approved testing facilities in the United States. The oral examination is conducted in the fall each year as well, and candidates will be deemed admissible to this

examination only if they have done the following: (1) passed the written examination, (2) fulfilled 16 months independent practice of plastic surgery as it applies to them, (3) submitted a 7-month case list compilation acceptable to the Board, and (4) are actively engaged primarily in the practice of plastic surgery and hold active operating privileges in a hospital.

The board will select 5 cases from the candidate's compiled 7-month case list and request each candidate prepare case reports. The oral examination is given over 2 days. Effective 1995, certificates issued by the Board are dated and will be valid for 10 years, and revalidation will be accomplished by the Board's Maintenance of Certification process. For more detailed information on the specific training models in plastic surgery residency and board certification process, visit the web site of the American Board of Plastic Surgery at <http://www.abplsurg.org>. The senior author of this article has served as the Chair of the American Board of Plastic Surgery.

The Plastic Surgery Educational Foundation (PSEF) administers the Plastic Surgery Educational Foundation Oral and Written Board Preparation Course, which is held annually. It is designed to concisely and interactively review the plastic surgery principles and management problems presented on the test as well as expose the test taker to the oral board format.

Residency, Research, and Subspecialty Fellowships

Medical students

If a student is interested in plastic surgery, he/she should try and identify a mentor early. Doing a surgical clerkship in the junior and/or senior year is strongly encouraged to gain appreciation for the discipline and to become acquainted with a specific program and its members. Motivated students also tend to do "acting internships" and take call with the residents to increase their visibility within the program. High United States Medical Licensing Examination scores, high grades in medical school (including membership in Alpha Omega Alpha), strong letters of recommendation from other plastic surgeons, and research activity are generally helpful. Away rotations at specific programs are helpful for candidates who are interested in going to the program and feel that they need the additional exposure provided by a month at the outside institution. Given its increasingly competitive nature, only very rarely do spots go unmatched in the National Residency Matching Program (NRMP) plastic surgery integrated model programs.

Residents/faculty

There are several opportunities for research fellowships. The PSEF sponsors the Smile Train, Inc. and the

PSEF Cleft Lip and Palate Research Initiative Grant. This program provides funds for health care professionals to perform meritorious research projects in the areas of etiology, treatment, and care of people with cleft lip and palate. The National Endowment for Plastic Surgery through the PSEF also funds meritorious projects in the field of plastic surgery.

Numerous philanthropic traveling fellowships exist including the African Medical and Research Foundation, Operation Smile, Interplast, and Austin Smiles. More information regarding research and giving back opportunities may be found at the American Society of Plastic Surgeons' web site at <http://www.plasticsurgery.org>.²

Postgraduate fellowships

There are numerous 6-month or 12-month dedicated subspecialty fellowships to follow formal plastic surgery residency training if a surgeon desires to obtain further exposure and experience in a certain area. These include fellowships in aesthetic surgery, breast reconstruction, microvascular surgery, hand surgery, burns, and more recently postbariatric surgical reconstruction after massive weight loss.

Society Involvement and Membership

The American Society of Plastic Surgeons Residents and Fellows Forum

The American Society of Plastic Surgeons (ASPS) has established a Residents and Fellows Forum. Residents who join this group receive (1) subscription to *Plastic and Reconstructive Surgery Scientific Journal*; (2) subscription to *Plastic Surgery News*; (3) free ASPS Annual Scientific Meeting registration; (4) discounts on select ASPS/PSEF programs, products, and services; and (5) residents list serve. Joining the forum does not confer membership in the society. Rather, it serves as a way residents can become familiar with the benefits of society membership and to maintain communication with the society.

Those plastic surgeons who have become candidates for active membership are eligible to become active members in the ASPS after they have completed a formal application process, which may be reviewed on the ASPS web site. The ASPS Young Plastic Surgeons Committee identifies problems or concerns of the young plastic surgeon. The term young is used to connote physicians in training or those newly established in the practice. The committee participates in the annual Senior Residents Conference promoting membership and participation in the ASPS and by offering assistance to residents in career planning. As well, the Young Plastic Surgeons recommends final candidates to the

AMA Plastic Surgery Caucus and nominates candidates for delegate positions to the AMA Young physicians Section.

The American Society for Aesthetic Plastic Surgery Candidate Program

The American Society for Aesthetic Plastic Surgery (ASAPS) has implemented a Candidate Program to assist qualified plastic surgeons with their aesthetic surgery education while introducing them to the society and its programs. As the plastic surgery organization exclusively concerned with the education of aesthetic plastic surgeons, the ASAPS offers many programs and services and recognizes its obligation to make its expanding educational and support services available to the broader community of plastic surgeons.³

The Candidate Program provides nonmember plastic surgeons the opportunity for substantial economic savings on ASAPS-sponsored continuing education meetings and other services to benefit one's practice. The first author of this article serves as the Chair of the Candidate Liaison Committee of the ASAPS. The functions of the committee are to coordinate candidate program activities and to promote membership in the society.

Other key societies within the field of plastic surgery include but are not limited to the following: American Association of Plastic Surgeons, International Society of Aesthetic Plastic Surgery, American Association for Hand Surgery, American Burn Association, American Cleft Palate-Craniofacial Association, American College of Surgeons, American Society of Maxillofacial Surgeons, Plastic Surgery Research Council, and American Society for Reconstructive Microsurgery.

Each society has specific criteria for membership with varying levels of training, sponsorship, and benefits. As well, each society tends to have its own annual scientific meeting for its members, residents, and candidates for membership. Research opportunities are available by submitting material for paper or poster presentation at these meetings. Society journals also accept original work for publication for those interested in this aspect of plastic surgery. For a detailed list of societies and annual meetings, visit the ASPS web site.⁴

Journals

A number of journals deal entirely with plastic surgery topics, and some of them offer discounts to residents. The following is a partial list of some key journals, but a complete list is available with subscription information on the ASPS web site: *Plastic and Reconstructive Surgery-Journal of the American Society of Plastic and Reconstructive Surgeons, Inc* ("The white journal"), *Aesthetic Surgery Journal* (official publication of the ASAPS), *Aesthetic Plastic Surgery* (official publication of the International Society of Aesthetic Plastic Surgery), *Journal of Hand Surgery*, *Annals of Plastic Surgery*, *Clinics in Plastic Surgery*, *British Journal of Plastic Surgery*, and *Journal of Reconstructive Microsurgery*.

The PSEF offers a guide for students interested in pursuing their education in plastic surgery called "Plastic and Reconstructive Surgery Essentials for Students." It is available free of charge and entirely downloadable on the ASPS web site at the following link: http://www.plasticsurgery.org/medical_professionals/publications/Essentials-for-Students.cfm. Although a career in plastic surgery is a marathon and not a race, the authors have both found it to be a very rewarding endeavor. Continued education, fine technical skill, and endurance are certainly prerequisites, but we wish anyone who considers it the best of luck in their future.⁴

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