



American Society for
Dermatologic Surgery

Cosmetic Dermatologic Surgery
Fellowship Accreditation Program

Handbook

Effective July 1, 2021

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Forward

This Accreditation Handbook is intended to serve as a resource for Fellowship Directors seeking to attain and maintain accreditation. The Handbook will provide guidance on ASDS accreditation policies and procedures.

The Handbook will be updated on a regular basis as policies and procedures are modified.

About ASDS

The American Society for Dermatologic Surgery (ASDS) was organized in 1970 and incorporated in 1973. ASDS is the largest specialty organization in the world exclusively representing dermatologic surgeons. Its core members are board-certified physicians who are specifically trained to treat the health, function and appearance of the skin and soft tissue with both medically necessary and cosmetic procedures using both surgical and non-surgical methods. The 6,100 members of ASDS meet not only standards in recognized certification of medical specialists but also standards of skill, experience and merit.

The mission of ASDS is to advance the skin health and well-being of our patients and community through education, research and innovation in the art and science of surgical, medical and cosmetic treatments. Our vision: ASDS dermatologists will be universally acknowledged as the leading experts in helping patients achieve optimal skin health and beauty through their mastery of surgical, medical and cosmetic treatments.

ASDS Board of Directors

The Board of Directors of the American Society for Dermatologic Surgery is responsible to the organization and its membership for all Society activities, including the Cosmetic Dermatologic Surgery Fellowship Accreditation Program. The Board is responsible for establishing an Cosmetic Dermatologic Surgery Fellowship Accreditation Work Group to structure an accreditation program that supports fair policies and procedures, promotes standards for education and training, and is adequately funded.

ASDS Cosmetic Dermatologic Surgery Fellowship Accreditation Work Group

The Cosmetic Dermatologic Surgery Fellowship Accreditation Program will be administered by the Cosmetic Dermatologic Surgery Fellowship Accreditation Work Group (AWG). The AWG will be solely responsible for accreditation decisions and approval of all Fellowship Programs and faculty applications. It is the AWG's responsibility to advance the quality of physicians' education through exemplary accreditation of a Fellowship Program. Should accredited Fellowship Programs be deficient in one area or another, the AWG will put the Fellowship Program on probation until the deficiency has been corrected. Should it not be corrected in the time period identified by the AWG, accreditation will be withdrawn.

The AWG also will be responsible for overseeing the site reviews and identifying individuals to serve as Site Reviewers based on specific criteria identified by the Work Group. From time to time, AWG members may travel to accredited Fellowship Programs to personally evaluate them.

The AWG will report on its activities at least annually to the ASDS Board of Directors. Among other things, the AWG shall advise the Board of any major changes in the policy or structure of the

Fellowship Programs or major policies being proposed by the AWG requiring approval by the Board of Directors.

Should an accreditation program applicant appeal the decision to deny accreditation, the AWG will be responsible for identifying a team of peers to adjudicate the appeal from the current pool of accredited Fellowship Directors from outside the applicant's geographic area.

Program Vision and Goals

The American Society for Dermatologic Surgery seeks to be recognized as a leader in the advancement of educational excellence in cosmetic dermatologic surgery. It envisions a scenario where all post-residency dermatologists have the experience necessary to meet the growing patient demand for cosmetic procedures.

Program Goals:

- (1) To highlight and recognize Fellowship Programs that provide comprehensive training in cosmetic dermatologic surgery by providing an efficient process for accreditation.
- (2) To position ASDS as the leading society and visionary force in cosmetic dermatologic surgery.
- (3) To promote academic and clinical excellence among dermatologists in cosmetic dermatology.
- (4) To establish guidelines for Fellowship Programs wishing to promote such excellence.

Purpose

The purpose of the program is to accredit Cosmetic Dermatologic Surgery Fellowship Programs designed to meet standards of quality and to promote practices that provide Fellows with the proper training and expertise to perform cosmetic dermatologic surgery procedures. To comply with the required training and experience, all Fellowship Training Programs must meet these specified guidelines. To ensure programs meet these requirements, a site review of all new programs will be conducted and cyclical visits made thereafter.

Confidentiality

All applicants agree to maintain confidentiality and not disclose to, or discuss with, any other party any statements or decisions made by the AWG or otherwise or any information regarding the site review, other than whether the applicant's Fellowship Program has been approved. This agreement applies both to new Fellowship Director and faculty applications for approval and renewal.

Fellowship Training Programs

All Cosmetic Dermatologic Surgery Fellowship Programs accredited by the American Society for Dermatologic Surgery will be one year in duration and begin on either July 1, August 1 or September 1 of each calendar year. The principal objective of such programs is to educate dermatologists in cosmetic dermatologic surgery procedures to be performed in private offices or community hospitals as well as to initiate the process of academic development in those individuals who aspire to careers in the university hospital environment. In addition, faculty will engender in the Fellow the skills and enthusiasm required to maintain a lifelong commitment to continuing education in the field of cosmetic dermatologic surgery.

The number of Fellows accepted into the program will be determined by the program on a case-by-case basis. Each program must have at least two faculty members to adequately support the educational needs of one Fellow. Programs seeking to train multiple Fellows are required to increase faculty.

With one Fellow being trained, the Program must support two or more faculty members, including the Fellowship Director, and must have at least 1,000 combined cases per year, on average, in five of eight categories over the last five years. With

respect to each of the five categories chosen, the faculty members must have performed the minimum number of cases required for the overall category while evidencing coverage of the breadth of the procedures included therein. Case experience in the year prior to program application/approval must be documented.

With two Fellows being trained, the Program must support three or more faculty members, including the Fellowship Director, and must have at least 2,000 combined cases per year, on average, in five of eight categories. With respect to each of the five categories chosen, the faculty members must have performed the minimum number of cases required for the overall category while evidencing coverage of the breadth of the procedures included therein. Case experience in the year prior to program application/approval must be documented.

With three Fellows being trained, the Program must support a minimum of four faculty members, including the Fellowship Director, and must have at least 3,000 combined cases per year, on average, in five of eight categories. With respect to each of the five categories chosen, the faculty members must have performed the minimum number of cases required for the overall category while evidencing coverage of the breadth of the procedures included therein. Case experience in the year prior to program application/approval must be documented.

Fellowship programs are expected to compensate their Fellows. The level of compensation must be appropriate to ensure Fellows can fulfill their responsibilities.

The program, including its faculty, must be approved by the ASDS Accreditation Work Group.

The emphasis of the Cosmetic Dermatologic Surgery Fellowship Curriculum is the acquisition of knowledge and skills based upon specific categories. With only one Fellow per two faculty members, there is ample opportunity for hands-on experience as well as intimate faculty exposure and one-on-one learning. The Fellow assumes gradual clinical responsibility under the critical review and supervision of the Fellowship Director. The principles of cosmetic dermatologic surgery and Core Competencies are expressed and reinforced during daily interaction with the Fellowship Director and staff. In addition, the Fellow will assume some of the teaching responsibilities of the dermatology residents.

Direct supervision is a key component of every Fellowship Training Program. Direct supervision is defined such that the Fellowship Director or Associate Fellowship Director is present and available to make decisions and be physically present for the critical parts of procedures including initial planning.

The key components of a cosmetic dermatologic surgery Fellowship include:

- One calendar year of training in the office/facility of the Fellowship Director where the majority of time is spent training.
- The Fellows must participate (perform/assist) in 260 cosmetic dermatologic surgery cases under the direct supervision of the Fellowship Director or Associate Fellowship Director in at least five of the eight categories of procedures. With respect to each of the five categories chosen, the Fellow must perform/assist in the minimum number of cases required for the overall category while evidencing coverage of the breadth of the procedures included therein.
- The Fellow must observe 1,000 cosmetic dermatologic surgery cases under the direct supervision of the Fellowship Director or Associate Fellowship Director in at least five of the eight categories of procedures. This can include the 260 cases performed/assisted. With respect to each of the five categories chosen, the Fellow must observe the minimum number of cases required for the overall category while evidencing coverage of the breadth of the procedures included therein.
 - The Fellow must receive didactic and clinical instruction in all areas of the curriculum.
 - Exposure to experiences designed to augment their training: writing and reviewing clinical manuscripts, attending

local and national conferences, presenting at clinical conferences, and teaching residents.

The eight categories of procedures, including the numbers Fellows are to observe and those they are to perform or on which they are to assist, are identified as follows:

Procedures	Minimum # Cases Performed/ Assisted	Minimum # Cases Observed
Wrinkles and Folds	60	180
Fat Transfer <i>optional</i>		
Neuromodulators		
Soft-tissue Fillers <i>Must include specific training in various FDA-approved types: calcium hydroxylapatite, poly-L-lactate, hyaluronic acid and fillers</i>		
Rejuvenation	30	90
Microdermabrasion		
Non-ablative Laser and Light-based Treatments <i>Must include specific training in pigmented lesion lasers and vascular lasers.</i>		
Non-ablative Fractional Resurfacing		
Chemical Peels: Light		
Platelet Rich Plasma Treatments		

Microneedling		
Pigmented Lesions		
Vascular Lesions		
Resurfacing	10	30
Chemical Peels: Medium-Deep		
Ablative Laser Resurfacing		
Dermabrasion		
Fractional Laser Treatments		
Veins	35	100
Ambulatory Phlebectomy		
Laser / Varicose Vein Surgery		
Pulsed-light Therapy		
Sclerotherapy		
Body Contouring (each area on each person can be counted as a separate case)	10	30
Cryolipolysis		
Laserlipolysis		
Ultrasound / Radiofrequency Fat Removal		
Tumescent Liposuction		
Ultrasound / Radiofrequency Tissue Tightening		
Other Energy-based or Chemical Modalities		

Lifting	5	15
Brow Lift		
Blepharoplasty		
Facelift		
Other Lifting Procedures		
Hair Treatments	8	22
Hair Transplantation		
Hair Removal		
Scar Revision	15	45
Fractional / Vascular Laser		
Keloid Excision		
Acne Scar Excision (per session)		
Z-plasty		
Subcision		
TCA/CROSS		
Injection Treatment**		
Elective Allocation	87	263
TOTAL	260	775
TOTAL NUMBER OF REQUIRED CASES	1,035	

*assisted means participating in at least 50 percent of the procedure as primary surgeon.

**excluding intralesional corticosteroids, local anesthetics or injections elsewhere in this table.

Once a Fellow has been accepted into a program, he or she is required to spend the entire year in the program, regardless of whether the required

number of cases is completed within a shorter time period.

Some Fellowship Programs may wish to provide training at more than one site or with more than one Director devoted to teaching. All Fellowship Programs must designate one Fellowship Director who will be responsible for the program and may submit an application for an Associate Fellowship Director to help with teaching responsibilities. Each Fellowship Program with more than one site or with a Fellowship Director and Associate Fellowship Director must satisfy both the Fellowship Program requirements and the Fellowship Director and Surgical Faculty requirements as stated in the following section.

Programs are expected to use the Curriculum and Bibliography in the Appendix as teaching guides for the year with the understanding the cosmetic dermatologic surgery is an evolving specialty, so these are subject to change. In addition, at the conclusion of the Fellowship Program, Fellows will be expected to:

- ✓ Submit a full case log documenting his/her training experience.
- ✓ Have experience teaching residents.
- ✓ Write a scientific article for publication in a peer-reviewed medical journal, with preference to *Dermatologic Surgery*.
- ✓ Document at least two manuscript reviews for *Dermatologic Surgery* (or another peer-

reviewed publication), in consultation with the Fellowship Program Director.

- ✓ Submit an abstract of the Fellow's research to the ASDS Annual Meeting for presentation following the completion of the Fellowship Program.

The goal of each program should be to ensure the highest level of patient safety and care. In rare cases when hospitalization is indicated in the case of an emergency, the program shall have either faculty with admitting privileges at a nearby hospital or a written transfer agreement for transferring patients to a nearby hospital. A detailed procedural plan for handling medical emergencies must be documented for all programs and included in the program's guidelines.

Fellowship Directors

The Fellowship Director shall be a duly licensed physician in good standing and an American Board of Dermatology certified dermatologist with more than five years of patient care experience in cosmetic dermatologic surgery. The Fellowship Director must be at least five years out of training at the time of application.

The Fellowship Director should be a role model who upholds the highest standards of the profession. Reputation and both regional and national standing in the field will be taken into account when conferring the status of Fellowship Director. Fellowship Directors should be published in peer-reviewed journals and have experience speaking at national or local dermatology meetings. Having served on the Board of Directors of a national or local dermatologic surgery or dermatology organization would be a plus. Educational and administrative experience must be documented at the time of application. At least three years of experience as a teacher in graduate medical education in dermatologic surgery is required.

The Fellowship Programs are established to be academically rigorous training programs presided over by individuals who have demonstrated their commitment to cosmetic dermatologic surgery as evidenced by consistent and ongoing teaching,

including teaching, journal clubs, curriculum review, external educational opportunities, etc. The Fellowship Director should present at national meetings and publish in a peer-reviewed literature or a textbook at least every five years. Fellowship Directors must continue to be academically oriented throughout the life of the program, not just at the time of initial program approval. Regular attendance of ASDS meetings is strongly encouraged.

The Fellowship Director has full responsibility for the program, including the faculty and all of the cases performed. The Fellowship Director must represent that the training program is fulfilling all of the requirements of accreditation. This includes oversight of the Fellow's training, the faculty and the facility at which the Fellow is trained.

Training Locations

Fellowship Programs may wish to provide training at more than one site or with more than one Director devoted to teaching and must ensure that additional locations provide additional training opportunities to the Fellows and are located within reasonable distance from the primary training location. All training sites must maintain a learning environment conducive to educating the Fellows.

With multiple training sites, Fellows should expect additional travel time within reasonable distance. Ancillary training sites listed on a regular Fellow's

schedule should be located no more than a 45-min one-way commute from the primary training location.

If more than one site is used for training, each training site must be visited and approved during the site review conducted.

Faculty

Associate Fellowship Directors

Some Fellowship Programs may wish to include an Associate Fellowship Director position in their program to assist the Fellowship Director with teaching responsibilities. Programs wishing to do so must submit an application and confirm that the Associate Fellowship Director meets the requirements of the position. An Associate Fellowship Director must be a physician in good standing, certified by an ABMS “Core Four” specialty board* and have at least three years of cosmetic dermatologic surgery experience and must include a case log demonstrating his/her annual experience in the procedures being performed in the Fellowship Program. If an individual is applying to become an Associate Fellowship Director for an CDSFAP-accredited Fellowship Program, a Faculty Application Form must be submitted along with the case log, a current CV and a processing fee. There will be no additional processing fee if the Associate Fellowship Director application is submitted at the same time as initial program accreditation. All applications must be submitted to the AWG for review and approval before an Associate Fellowship Director begins training responsibilities.

Although the Associate Fellowship Director may be qualified to assume the role of Fellowship Director, should the Fellowship Director depart or be

incapacitated, such a change must be approved by the AWG beforehand in order to continue to maintain accreditation.

Surgical Faculty

In addition to the Fellowship Director, a Fellowship Program may have Surgical Faculty members. Again, every program must have at least two faculty members per one Fellow. These individuals must submit a Faculty Application Form, case log, current CV and be approved by the AWG. To qualify to be Surgical Faculty, an individual must be a physician in good standing, certified by an ABMS “Core Four” specialty board* and have at least three years of cosmetic dermatologic surgery experience and must include a case log demonstrating his/her annual experience in the procedures being performed in the Fellowship Program.

Additional application fees will not apply if any and all faculty applications are received at the same time the Fellowship Program is applying for initial accreditation. If submitted at a later date, each faculty change will require payment of a fee.

If the Associate Fellowship Director or any faculty member leaves the Fellowship Program, the training schedule must continue to fulfill the ASDS requirements – even if the training period must be lengthened in order to meet the minimum accreditation requirements. The AWG must be

notified of any changes related to the Associate Fellowship Director or any faculty member.

No more than 25 percent of the cases necessary to satisfy the program requirements may be performed by a non-dermatologist, “Core Four” certified physician.

*ABMS “Core Four” specialty boards include the American Board of Dermatology, the American Board of Plastic Surgery, the American Board of Otolaryngology and the American Board of Ophthalmology.

Fellows

Eligibility

Fellow applicants will be required to have completed an ACGME-approved or DO-affiliated dermatology residency program (or a similar program in Canada accredited by the Royal College of Physicians and Surgeons of Canada) before the start of the Fellowship. Applications from dermatologists trained in other countries will be considered by the AWG if submitted by fellowship programs at least 6 month prior to Fellow's start date. A review of such applications will seek to assess whether the non-traditional training was substantially equivalent, in extent and quality, to an ACGME-approved dermatology residency program and not less than 3 years in duration. The application must include USMLE transcript (all three steps) to ensure that international applicants can practice medicine without supervision and therefore complete required cases by the program curriculum. State-specific medical licensure must be obtained prior to registration with the match or program acceptance.

Assessment

To evaluate the quality and level of education attained, Fellows will be asked to review their Fellowship experience. The first review will occur at the midpoint of the Fellowship year. Fellows will be

contacted by ASDS to schedule an interview with a member of the Accreditation Work Group either in-person or through electronic media. The survey instrument itself will be sent to Fellows in advance in order to prepare. A Fellowship Program shall not take disciplinary or other retaliatory action against a Fellow based on information provided to the Accreditation Work Group.

A written evaluation form will be provided to complete the final review. This should be submitted to the ASDS within 30 days of completing the Fellowship. Each Fellow must submit the following at the completion of the Fellowship year in order to fulfill the Accreditation Program requirements:

- ✓ Submit a full case log documenting his/her training experience using the form provided.
- ✓ Write a scientific article for publication in a peer-reviewed medical journal, with preference to *Dermatologic Surgery*.
- ✓ Document at least two manuscript reviews for *Dermatologic Surgery* (or another peer-reviewed publication), in consultation with the Fellowship Program Director.
- ✓ Submit an abstract of his/her research to the ASDS Annual Meeting for presentation following the completion of his/her fellowship.

Required Fellowship Program Policies

Compensation

A Fellowship Program shall provide all Fellows with compensation appropriate to ensure that the Fellows can fulfill their responsibilities under the Fellowship. Salary shall commensurate with PGY 5 level of postgraduate training.

Benefits

The Fellowship Program may provide medical and dental benefits in accordance with plans maintained by the institution/practice for existing employees. Other benefits could include: pager and pager services; lab coats and monthly laundry service; and reimbursement for travel expenses for continuing medical education purposes.

Working Hours and Moonlighting

- Fellows may not exceed an 80-hour work week (when averaged over four weeks) including all moonlighting.
- Fellows must have a minimum of one day free from duty (24 hours) every week when averaged over four weeks.
- Fellows should have 10 hours off between shifts and MUST have eight hours off between scheduled duty periods (this includes a moonlighting shift). These eight hours should be at-home time for rest; travel time to and from

the practice/institution should not be counted in the eight hours.

- Fellows may not allow a moonlighting shift to interfere with their regular duties of the program (i.e., trainees may not leave a regularly scheduled shift early due to moonlighting the night before).
- Fellows may not cover a moonlighting shift while simultaneously on-call for their training program.

Fellows should always be mindful that moonlighting is a *privilege*. The Fellows' education and training program requirements remain the highest priority and take precedence over any and all outside activities. Moonlighting must not interfere with the ability of the Fellow to achieve the goals and objectives of the educational program.

Fellows wishing to moonlight must have the express written permission of their Fellowship Director in advance of any moonlighting (external or internal) activity. Individual Fellowship Directors have the discretion to limit the amount of moonlighting performed by their Fellows.

Fellows approved for moonlighting must be in good academic standing within the program.

Matching Service

All Fellowship programs are required to participate in matching service to select new Fellows. Any

exemptions from participation must be granted by the ASDS Accreditation Work Group annually.

Malpractice Insurance

The Fellowship Program will be responsible for providing the Fellow with professional liability insurance coverage covering the acts and omissions of the Fellow in connection with the Fellow's participation in the educational program, including any appropriate tail coverage.

Leave Policy

Fellows will be extended time off according to the policies of the practice or institution supporting the Fellowship Program. An absence exceeding six weeks in an academic year, including vacation, should be approved only under exceptional circumstances. Any Fellow who will have been absent more than six weeks in one year and whose performance has not been uniformly above average or excellent throughout the training should be required to complete an additional period of training at least equal in length to the total period of absence in excess of routinely provided total vacation time.

Conflict Resolution

The Fellowship Program will have a policy in place to resolve internal workplace conflicts and assess the performance of its Fellow(s).

Fellowship Curriculum

The Fellowship Curriculum should be specifically designed to produce cosmetic dermatologic surgeons who excel in the diagnosis and care of dermatology patients requiring cosmetic medical or surgical treatment. The Curriculum and Bibliography in the Appendix should be used as a guide when developing the teaching plan for Fellow(s). The overall goals and objectives include educating Fellows to:

- Become competent cosmetic dermatologic surgeons who can effectively and efficiently evaluate and manage patients with cosmetic concerns.
- Become proficient in the basic tenets of facial aesthetics and contouring.
- Understand the technology, implementation and safety aspects in the use of cosmetic devices.
- Acquire the interpersonal skills necessary to direct a team of health care professionals in the delivery of services.
- Deliver patient care that is compassionate, appropriate, and effective for the treatment of cosmetic concerns and promotion of health.
- Become self-directed, self-motivated to embrace learning as a lifelong endeavor.

- Develop expertise in applying computer-based information systems to patient care and continuing medical education.
- Acquire the confidence and skills necessary to communicate one's knowledge to others and be an effective educator.

In monitoring a Fellow's progress, Fellowship Directors should provide performance feedback at least semi-annually. Particular attention will be paid to their demonstrated achievement in the following six core competencies that are set forth in detail in the Appendix:

- ✓ Patient Care
- ✓ Interpersonal Skills
- ✓ Medical/Surgical Knowledge
- ✓ Professionalism
- ✓ Practice-based Learning
- ✓ System-based Practice

Each Fellow must submit a full case log documenting his/her training experience and a scientific article for publication in a peer-reviewed medical journal in order to fulfill the requirements of completing the Fellowship as well as review two scientific manuscripts for *Dermatologic Surgery*.

Application Process

Fellowship Directors seeking program accreditation must complete the Fellowship Program Application Form, include all required documentation and fees, and submit the paperwork to the AWG by the application deadline date. Programs can elect to begin their training year on July 1, August 1 or September 1.

Fellowship Program and Faculty Application Forms should be accompanied by the application fee along with a case log documenting the annual case load for each faculty member.

Application Checklist

- ✓ Select a Fellowship Program start date: July 1, August 1, or September 1.
- ✓ Complete the Fellowship Program Application Form.
- ✓ Include a current curriculum vitae.
- ✓ Include two letters of support from ASDS members not affiliated with the program.
- ✓ Include verification of malpractice insurance coverage for the Fellowship Director; additional faculty, if any; the Fellowship Program and the Fellow(s) with tail coverage or its equivalent for the Fellows.
- ✓ Have each Faculty member complete the Faculty Application Form and submit case

logs and CVs for all faculty members and ensure the total number of cases performed by faculty meet the minimum requirements as referenced.

- ✓ Include proposed Fellow weekly schedule (the schedule should contain information on training locations, faculty oversight, the number of expected cosmetic cases, dedicated research time, clinic access, etc.)
- ✓ Have the Program Director complete and submit the Acknowledgement/Hold Harmless Form. (**Note:** *If you do not have a Fellow at time of application, it must be completed before the Fellow begins the Fellowship Program.*)
- ✓ Submit application materials along with the initial accreditation fee (add an additional fee if the program will have more than one training location) by the published deadline date.

American Society for Dermatologic Surgery
Attn: Cosmetic Dermatologic Surgery Fellowship
Accreditation Program
5550 Meadowbrook Drive, Suite 120
Rolling Meadows, IL 60008

Attaining Accreditation

Accreditation will be granted to all Fellowship Programs meeting the requirements specified herein. Once a successful site review has been completed and the Site Reviewer completes his/her report and makes a recommendation, the AWG will make its accreditation decision. The Fellowship Director will be notified in writing of the final decision.

A certificate of accreditation will be mailed to all accredited Fellowship Programs. Accredited programs will be listed on the ASDS website and included in the ASDS DermSurg Fellowship Finder. ASDS also will provide a digital copy of the ASDS accreditation logo to use on Fellowship Directors' websites and Fellowship Program documents. Guidelines detailing the appropriate use of this logo are included in the Appendix.

Maintenance of accreditation requires programs to pay an annual maintenance of accreditation fee and to participate in regular site reviews. Post-accreditation, the first cyclical review will occur the fifth year following accreditation; subsequent reviews will generally occur every five years, absent any issues.

Fees and Forms

Fees

Programs seeking accreditation will pay an initial accreditation fee that will include the cost of the site review and the application fees for all faculty as long as the Faculty Application Forms are provided at the time of the initial application. Should an application be denied prior to the site review, 80 percent of the application fee will be refunded. Should an application be denied post site review, no refund will be issued. Should a Fellowship Program request to change its site review once scheduled, an additional fee may be assessed.

Once approved, programs will be required to pay an annual maintenance of accreditation fee. Faculty changes that occur once accreditation has been granted will require approval along with the completion of a new Faculty Application Form and processing fee.

In the case a Fellowship Program is denied accreditation and wishes to appeal the decision of the AWG, an administrative fee along with the Fellowship Director's case for appeal must be submitted.

When subsequent reviews (generally the fifth year following initial accreditation and then every five years, absent any issues) are required to

comply with the accreditation program, an additional fee will be sought to cover direct costs. Additionally, those programs that have more than one training location will require a site review as a part of the accreditation process and need to pay an additional fee.

	Member	Non-Member
Initial Accreditation Fee	\$2,750	\$3,750
Site Review Fee (Change, Probationary, Additional Site)	\$2,000	\$3,000
Cyclical Program Review Fee at ASDS Annual Meeting	\$1,500	\$2,000
Annual Maintenance of Accreditation Fee (Base)	\$650	\$650
Annual Maintenance of Accreditation Fee (Per each Fellow enrolled in the program)	\$600	\$600
Post-accreditation Faculty Change Fees	\$150 per faculty member	\$225 per faculty member
Appeal Fee	\$500	\$750

Forms

Annually, each Fellowship Director will be asked to sign a form attesting that no changes have been made to the Fellowship Program or indicating that changes have taken place and documenting them. The form also will require a signature stating that the Fellowship Director understands and agrees it is the sole responsibility of the Fellowship Program Director to ensure the continuation and completion of the training of a Fellow who has been accepted. The Fellowship Director attests to the truthfulness and accuracy of the statements in the application as well as the annual statement. Also in signing the application and yearly statements, the Fellowship Director agrees – on behalf of all faculty members – to comply with the policies, procedures and guidelines of the ASDS Cosmetic Dermatologic Surgery Fellowship Accreditation Program.

Site Review

The purposes of the site review are to: (i) confirm that applicants have provided true and complete information regarding their Fellowship Program; and (ii) periodically review the policies and practices of existing Fellowship Training Programs. It is the responsibility of the Accreditation Work Group (AWG) to accredit those programs designed to meet the standards of quality and promote practices that will provide Fellows with the proper training and expertise to perform cosmetic dermatologic surgery procedures.

All new Fellowship Director applications must be site-reviewed before a final accreditation decision is made. Before the site review, applicants may receive provisional accreditation. The site will be reviewed on the basis of the standards of the CDSFAP. After a Site Reviewer completes his/her review, prepares a report and submits a recommendation regarding the program, the AWG will review the report and reviewer recommendations as well as any other relevant information before making its accreditation decision. Those Fellowship Programs approved will be granted accreditation for a five-year period. Absent any adverse event in the interim, the Program will require a site visit in the fall of the fifth training year before a decision to extend accreditation is made. If the Fellowship Program is deemed compliant with the accreditation

requirements after this second visit, it will generally be placed on a five-year site review rotation timetable. Notwithstanding the foregoing, an approved Fellowship Training Program may be resurveyed with or without advance notice at any time. The decision to approve/not approve a Fellowship Program will be final.

In advance of the site review and in order to make the process as efficient as possible, the Fellowship Director will be asked in advance to have specified documents and other information available for the Site Reviewer prior to the on-site visit. Fellowship Directors will be asked to provide current CVs and case logs for all faculty, a teaching plan for prospective Fellows and prior Fellowship trainees' case logs, if any. The Director should schedule a variety of observable cosmetic dermatologic surgery cases for the day of the site visit and ensure that no other obligations have been scheduled. The Site Reviewer may also ask to see additional documents or request additional information during the on-site visit. The Reviewer should be able to gather information with minimal disruption to the daily practice of the Fellowship Training Program. For compliance with HIPAA regulations, Fellowship Directors shall de-identify all patient records prior to disclosure to the Site Reviewer.

Fellowship Programs are expected to compensate their Fellows at least at PGY-5 level of postgraduate training. This will be verified during site review.

Site Reviewers

Site Reviewers will be selected by the Accreditation Work Group (AWG). Any individual affiliated with the Fellowship Program being reviewed or who practices within the same geographic area of the Fellowship Program being reviewed will not be allowed to participate in the review, deliberate on or vote on accreditation status – so as to avoid any real or perceived conflict of interest. Site Reviewers are matched with Fellowship Programs based on the following guidelines:

- The Site Reviewer and Fellowship Director must not have had a Director/Fellow relationship.
- The Site Reviewer and Fellowship Director must not work in the same general geographic area. As a general rule, they must practice at least 100 miles apart and preferably in separate states.
- The Site Reviewer and Fellowship Director must not have had a Site Reviewer/Program relationship.

A “Call for Reviewers” will be sent to eligible Site Reviewers once a year. To be eligible, Site Reviewers must be knowledgeable about the standards and process for accreditation and have at least five years of experience in cosmetic dermatologic surgery or must be one of the approved CDSFAP Program Directors. Eligible reviewers will be asked to volunteer for particular site reviews but may volunteer for any visit; however, the selection of Site Reviewers shall be in the sole discretion of the AWG.

Considerations during this process will include keeping travel expenses to a minimum by selecting site reviewers in similar geographic regions.

Fellowship Program Changes

Program Changes

All program changes must be communicated to ASDS and documented in detail. If a significant deviation from the program accreditation standards is determined, the AWG will examine the program accordingly and a cyclical review or a site review may be scheduled to confirm compliance with the standards.

Incomplete Year

In the event an approved Fellowship Training Program or its faculty has a change in status, the Accreditation Work Group (AWG) must be notified and the program reevaluated. Should an approved program not complete the year due to unforeseen circumstances, the AWG should be notified and both the Fellowship Director and Fellow will be required to submit an evaluation of the program to be reviewed by the AWG Chair and a determination of next steps with the Fellowship Program and Fellow will be made.

Change in Location

If a Fellowship Director moves to a new location and plans to continue the Fellowship Program, the Fellow may be permitted to continue his/her training at the new location, pending approval of the new location from the AWG and adherence to the guidelines. If a Fellow candidate has already been accepted for the following year, provisional

approval of the Program may be granted upon review of the situation by the AWG. The Fellowship Director must notify the AWG about the move immediately after such a decision is made. A plan detailing how the new location will satisfy accreditation guidelines must be submitted to the AWG to ensure the change is not detrimental to the incoming Fellow.

Departure of the Fellowship Director

If a Fellowship Director leaves the institution before the completion of the Fellow's training, the Fellowship Program will no longer be an ASDS-accredited Fellowship Program and the Fellow's training will be considered incomplete. In order to complete the Fellow's training, the Fellowship Director must submit a training plan that meets accreditation guidelines for review and approval by the AWG and as soon as the departure is known. This will allow ample development and review time so as not to deter from the Fellow's training even though it may extend the training period. Should the Fellowship Director wish to start a new ASDS-accredited Fellowship Program, he/she must reapply once established in the new location.

In the case where an Associate Fellowship Director assumes responsibilities for a departing Fellowship Director, approval must be sought in advance from the AWG in order to continue accreditation.

Disability or Death

In the event of death or disability of the Fellowship Director, the AWG may grant permission for the

program to continue under probation and at the direction of an interim Fellowship Director. The interim Fellowship Director will be required to report to the AWG on a monthly basis until the Fellowship year is completed, which will coincide with the end of the probationary period. To renew accreditation following the end of the probationary period, the new Fellowship Director will be required to submit all the necessary applications for approval. A change in status of the Fellowship Director or a request to transfer by a Fellow will immediately bring the Fellowship Program under scrutiny by the Accreditation Work Group. Such changes will trigger a site visit, which will be conducted within the Fellowship year.

While ASDS – including its Board of Directors and the AWG – is sympathetic to the needs of the Fellow and wishes to see all Fellows complete a successful training year, ASDS is not responsible for ensuring the completion of the Fellow’s education.

Fellowship Programs are required to have a contingency plan identified to address each of these scenarios should they occur. The Fellowship Director is responsible for advising the Fellow of such contingencies prior to the start of the Fellowship year.

Changes in Training

Fellowship programs not training a Fellow for three consecutive years must complete a cyclical program review prior to accepting a Fellow into

their program to ensure program readiness. If a program has not accepted a Fellow for five consecutive years, ASDS will sunset the program's accreditation status and the specific program must reapply for initial accreditation.

Complaint Policy

Statement of Purpose

The Cosmetic Dermatologic Surgery Fellowship Accreditation Program (CDSFAP) has established a Complaint Process in recognition of the value of information provided by Program Fellows in determining whether a Program's performance is consistent with the ASDS-CDSFAP accreditation standards.

The Accreditation Work Group will review complaints from any source, but the ASDS-CDSFAP Complaint Process is intended solely to address non-compliance with Program standards, especially those identified by Fellows. The Complaint Process is not intended to be used to resolve employment or other internal disputes among individuals associated with an Accredited Fellowship Program.

Complaint filing procedure

Any complaint must be in writing and include:

- Name of the complaining party.
- Name of the Fellowship Program involved.
- Section of the accreditation standards alleged to have been violated.
- Details of the complaint, including date(s) and circumstance(s).
- Any other relevant details.
- An acknowledgement that ASDS-CDSFAP may advise the Fellowship Program Director of the nature of the complaint filed.

Complaints should be sent by email to *cdsfap@asds.net* or mailed to ASDS, Attention: CDSFAP, 5550 Meadowbrook Drive, Suite 120, Rolling Meadows, IL 60008.

Review and determination

ASDS staff will acknowledge receipt of all complaints. Reasonable efforts will be made to keep confidential the identity of the complaining party. Nevertheless, the complaint will become part of the Accredited Fellowship Program file and may be used in making accreditation decisions. The Accreditation Work Group has no obligation to advise the complaining party of the disposition of the complaint.

Adverse Action

If a Fellowship Program is found by the AWG to be deficient based on the results of a site and/or on the basis of other information received, the Program may be placed on probation and the Fellowship Director will be notified in writing of the deficiency and the length of the probation. During the probationary period, the Fellowship Program must correct any and all deficiencies to maintain its approval status. The corrections must be documented in writing to the satisfaction of the AWG. In addition, the Program may be subject to further on-site review for the purposes of determining compliance. Programs requiring an on-site review must submit a fee to cover the cost of the visit. If the deficiencies have not been corrected by the end of the probationary period, the Program will lose its accreditation status.

A Program may submit a written request to the AWG to extend the probationary period to allow additional time to correct any deficiencies. The AWG will make a decision concerning the request within 30 days of receipt and notify the Fellowship Director accordingly.

During the probationary period, Fellowship Programs may not use the accreditation logo and will be listed on the ASDS site as being on probation.

Appeals

A Fellowship Program may request reconsideration and appeal of any adverse decision of the AWG. To request reconsideration, the Fellowship Director must give notice in writing to the AWG within 30 days of receiving the decision. Within 30 days after receipt of the request, the AWG will reconsider its original decision based only on the record on which the original decision was based. Upon receipt of an adverse decision on reconsideration, a Fellowship Program may appeal the AWG's decision. The AWG's decision will be forwarded to an Appeals Panel composed of current Fellowship Directors who are not members of the AWG and who do not practice within the same geographic area as the complainant (generally in another state). The Appeals Panel will hold a hearing based on the underlying record. Upon the conclusion of the hearing, the Appeals Panel shall affirm, overturn or modify the AWG's decision. The action of the Appeals Panel shall be final.

Any revocation of a Fellowship Program's accreditation status will result in the Program being removed from the list of eligible Fellowship Training Programs. Once a Fellowship Program's approved status has been revoked, the Fellowship Program must submit a new application to be reconsidered for accreditation following a one-year waiting period.

Appendix

Cosmetic Dermatologic Surgery Fellowship Program Curriculum

Advanced Cardiac Life Support

1. Acute coronary syndromes
2. Airway obstruction
3. Asystole
4. Bradycardia
5. Emergency ventilation
6. Ethics of care
7. Oxygenation
8. Primary ventricular fibrillation
9. Pulseless electrical activity
10. Respiratory distress
11. Respiratory failure
12. Secondary ventricular fibrillation
13. Shock
14. Stable tachycardia
15. Stroke
16. Unique resuscitation situations
17. Unstable tachycardia

Anatomy and Physiology

1. Classic anatomy
2. Topographical features and underlying bony and cartilaginous structures
3. Blood supply of the face
4. Sensory innervation of the head and neck
5. Motor innervation of the head and neck
6. Muscles of facial expression

7. Relaxed skin tension lines, cosmetic units and junction lines
8. Characteristics of the skin in different cosmetic units
9. Reservoirs of excess skin available on the head and neck
10. Anatomic free margins
11. Anatomic convexities and concavities
12. Microscopic anatomy of the skin and subcutaneous tissues
13. Photo-aging and intrinsic aging
14. Physiology of the skin and soft tissues

Ambulatory Phlebectomy

1. Normalization of blood flow
 - a. Begin at highest point of reflux
2. Vascular leg anatomy and mapping
 - a. Use of Duplex examination to determine reflux
 - b. Use of transepidermal illumination to map out abnormal superficial venous system
 - c. Avoiding, diagnosing and treating complications
3. Evidence-based approach to patient assessment
4. Pre-procedural patient counseling (blood thinners/advise on stopping unnecessary bruise-causing medicines [e.g., ibuprofen], counseling on bruise-associated down-time, allergies especially to lidocaine and/or topical anesthetics)
5. Informed consent
 - a. Video consultations and consents

- b. Alternative forms of treatment (sclerotherapy)
- 6. Infiltration of anesthetic technique
- 7. Location and number of incision sites
- 8. Use of a variety of hooks to grasp the targeted vein
 - a. Method of vein extraction
 - b. When to tie off a vein
 - c. Post-operative bandaging
- 9. Treatment planning and managing expectations
- 10. Optimizing injectable outcomes
- 11. Minimizing tools and maximizing results
- 12. Managing complications
- 13. Advanced techniques

Blepharoplasty

- 1. Aesthetics
 - a. Overall facial aesthetics
 - b. Aesthetics of the upper face relating specifically to brown and eyelid aesthetics
 - c. Gender differences in aesthetics of the upper face
- 2. Anatomy
 - a. Topographical anatomy
 - i. supraorbital rim
 - ii. infraorbital rim
 - iii. medial canthus
 - iv. lateral canthus
 - b. Aging changes in the eyelid complex
 - i. brow ptosis
 - ii. dermatochalasis
 - iii. fat herniation
 - iv. rhytids
 - v. hooding with visual field cuts

- c. Anatomy of the periorbital region
 - i. eyelid layers
 - ii. extraocular muscles
 - iii. fat pads
- d. Anatomic differences in the Asian eyelid
- e. Complex aging changes in the periorbital region
 - i. festoons
 - ii. midface ptosis
 - iii. tear trough deformity
- 3. Physiology
 - a. Periorbital musculature
 - b. Lacrimal system
 - c. Extraocular muscles
- 4. Surgical Technique
 - a. Incision placement and importance of preoperative marking in upper lid blepharoplasty
 - b. Upper lid blepharoplasty
 - i. Excision of skin
 - ii. Excision of orbicularis muscle
 - iii. Removal of excess herniated fat
 - c. Lower lid blepharoplasty
 - i. Transconjunctival
 - ii. Skin flap
 - iii. Skin-muscle flap
- 5. Complications
 - a. Blindness as a catastrophic complication
 - b. Hematoma
 - c. Acute glaucoma
 - d. Ectropion
 - e. Corneal abrasion
 - f. Keratitis
 - g. Conjunctivitis

Brow Lift

1. Anatomy of the scalp, forehead and periorbital regions
 - a. Aging process
 - i. forehead
 - ii. brows
 - iii. eyelids
 - iv. adnexae
 - b. Etiology
 - i. forehead
 - ii. lateral canthal rhytids
 - c. Blood supply, motor sensory innervations of the forehead and periorbital structures
2. Aesthetic relationship of the brows and forehead to periorbital region
 - a. Surgical principles employed in the correction of brow defects and their relationship to the forehead and upper eyelids
 - b. Surgical options to alter brow position
 - i. indications
 - ii. limitations
 - c. Use of neurotoxins in the rejuvenation of the upper third of the face
 - i. indications
 - ii. limitations

Chemical Adipocytolysis

1. New drug for disruption of fat cell membranes and adipocyte destruction
2. Non-animal derived deoxycholate
3. Pharmacologic variant of “mesotherapy”

Chemical Lipolysis

(in drug development pathway;

not yet FDA approved)

1. Subcutaneous drug for nonablative local fat reduction
2. Existing approved pharmacologic agent
3. Salmeterol xinafoate [SX] and fluticasone propionate [FP] (Advair)
4. Eight weekly sessions
5. Reported fat reduction of approximately 200 cc

Dermabrasion

1. Preoperative assessment of scar/scarring
2. Careful review of patient history for:
 - a. History of abnormal scarring/hypertrophic scars/keloids
 - b. History of connective tissue abnormalities
 - c. Recent treatment with isotretinoin
 - d. Age of scar
 - e. History of HIV/Hepatitis/other blood-borne diseases
3. Anesthesia – local and blocks
4. Procedure
 - a. Choose appropriate equipment – 100 gr sandpaper vs. diamond fraise vs. wire brush
 - b. Perform resurfacing in two directions to prevent “stroke effect”
5. Postoperative care – occlusive dressing with Vaseline or other appropriate wet care

Emergency Preparedness

1. Management of surgical emergencies
 - a. Office emergency equipment
 - b. Staff/physician preparedness
 - c. Management of office and surgical emergencies including but not limited to :
 - i. Syncope
 - ii. Convulsions
 - iii. Hemorrhage
 - iv. Anesthetic toxicity
 - v. Allergic reactions
 - vi. Anaphylaxis
 - vii. Myocardial infarction
 - viii. Cardiac arrest

Ethics

1. The ideals of medicine
2. Personal integrity and accountability
3. Ethical accountability in physician-patient relationships
4. Boundary violations in physician-patient relationships
5. Professional accountability, licensing and discipline
6. The physician and public accountability

Evidence-based medicine

1. Categories used to rank the quality of evidence
2. Statistical measures used to express the clinical benefits of an intervention
3. How to evaluate the quality, limitations and generalizability of clinical trials

Facelift

1. Anatomy
 - a. Microscopic changes in the skin with aging
 - i. loss of elastic fibers
 - ii. changes in collagen
 - iii. thickness of the dermis
 - b. Aesthetic elements of the face and changes with aging
 - i. rule of thirds
 - ii. vertical fifths
 - iii. Frankfort plane
 - c. Anatomical manifestations of aging for each region of the face
 - i. nasolabial fold
 - ii. jowling
 - iii. brow ptosis
 - d. Topographical anatomy of the face
 - i. glabella
 - ii. radix
 - iii. rhinion
 - iv. iv. nasion
 - v. menton
 - vi. pogonion
 - e. Anatomy of the facial nerve and its relation to surgical planes of dissection
 - f. Neurovascular supply to the earlobe, preauricular region and forehead
 - g. Muscles of facial expression and how they relate to the SMAS
2. Preoperative patient assessment
 - a. Good or poor candidates
 - i. patient motivation
 - ii. warning signs
 - iii. tobacco use

3. Anesthesia
 - a. Options
 - b. Technique
4. Surgical technique
5. Gender differences
 - a. Incision placement
 - b. Skin characteristics
 - c. Preservation of the sideburn
6. Complications
 - a. Hematoma
 - b. Infection
 - c. Prolonged edema
 - d. Skin slough
 - e. Neurosensory loss
 - f. Pigment changes
 - g. Asymmetry

Fat transfer

1. Full face evaluation of volume distribution
2. Evaluation of potential donor sites
3. Discussion of fat augmentation vs. synthetic soft-tissue augmentation
4. Review pre-procedural counseling in regard to expected adverse effects and complications
 - a. Past medical history
 - b. Specific risk factors (previous facial surgery)
 - c. Medications – anticoagulants
 - d. Relevant allergies
5. Review of duration of graft survival, individual variation of graft take, new techniques to prolong graft survival under investigational protocols
6. Obtain pre-operative photos and informed consent

7. Surgical technique
 - a. Antiseptic preparation-sterile prep similar to liposuction protocol.
 - b. Tumescence solution preparation according to accepted guidelines (note: dosing is weight-based).
 - c. Harvest with fat harvesting cannula.
 - d. Processing after harvesting may vary but usually involves decanting and discarding the tumescence solution in the harvested syringes, washing the syringes, and centrifugation to concentrate the fat pellet. In investigative protocols, enzyme digestion and biologic additives may also be used.
 - e. Fat should be transferred to 1 cc syringes and re-implanted with blunt cannulas.
8. Post-operative care is the same as liposuction for the harvesting site. Facial re-implantation access site should be covered with adhesive bandages.

Hair Transplantation

1. Evaluation
2. Technique
3. Practice set up
4. Follow up
5. Complications

Instrumentation and Sterilization

1. Instrumentation
2. Instrumentation preparation
3. Theory of sterilization
4. Methods of sterilization
 - a. Resources necessary for sterilization

Laser Surgery

1. Nature of light energy
2. Biology of laser tissue effects with various lasers
3. Indications
4. Skin-type assessment
5. Pre- and post-operative patient care
6. Complications
7. Laser safety: safety/protection of patient and operating room personnel, eye protection and infectious disease risk
8. Laser treatment of cutaneous vascular lesions
9. Laser of benign pigmented cutaneous lesions
10. Intense pulsed light
11. Treatment of tattoos
12. Hair removal with laser
13. Ablative and non-ablative skin resurfacing
14. Photodynamic therapy
15. Lasers/light for acne
16. Prophylactic antiviral/antibiotics
17. Anesthesia for cutaneous laser surgery

Laser/Radiofrequency Varicose Vein Surgery

1. Normalization of blood flow
2. Vascular leg anatomy and mapping
 - a. Use of Duplex examination to determine reflux and size of GSV/SSV & perforator veins
 - b. Use of transepidermal illumination to map out abnormal superficial venous system
 - c. Avoiding, diagnosing and treating complications
3. Evidence-based approach to patient assessment

4. Pre-procedural patient counseling (blood thinners/advise on stopping unnecessary bruise causing medicines (e.g., ibuprofen, counseling on bruise-associated down-time, use of graduated compression)
5. Informed consent
 - a. Video consultations and consents
 - b. Alternative forms of treatment (sclerotherapy, ligation and stripping)
6. Infiltration of anesthetic technique
7. Access of the GSV/SSV under ultrasound guidance
8. Use of a variety of hooks to grasp the targeted vein
 - a. Effective thermal destruction of targeted vein
 - b. When to tie off a vein
 - c. Post-operative bandaging
9. Treatment planning and managing expectations
10. Managing complications
11. Advanced techniques

Liposuction

1. Dieting patterns, patient evaluation, exercise
2. Consultation
3. Technique
4. Complications
5. Abdominoplasty and other ancillary procedures

Liposuction Laserlipolysis

1. Correction/improvement of body contour
2. Anatomy of underlying muscle, lymphatics, nerves, blood vessels

3. Evidence-based approach to patient assessment
4. Pre-procedural patient counseling such as blood thinners/advise on stopping unnecessary bruise-causing medicines (e.g., ibuprofen), counseling on bruise-associated down-time, use of compression, post-treatment exercise/activity
5. Informed consent
 - a. Video consultations and consents
 - b. Alternative forms of treatment (surgical excision/abdominoplasty)
6. Administration of oral and/or IM and/or IV sedation
 - a. Patient monitoring
7. Infiltration of tumescent anesthesia
8. Use of a variety of cannulas to aspirate fat
 - a. Location and number of access points
 - b. When to use a laser to enhance results
 - c. Post-operative bandaging
9. Treatment planning and managing expectations
10. Managing complications
11. Advanced techniques

Medical-legal Issues

1. Risk assessment in the surgical patient
 - a. Preoperative
 - b. Intraoperative
 - c. Postoperative
 - d. Medical complications / contraindications for surgery

2. Medical record documentation
 - a. Written patient questionnaires
 - b. Preoperative evaluation
 - c. Operative report
 - d. Postoperative instruction
 - e. Documentation of telephone calls for appointments/ advice/ prescriptions
3. Quality assurance (QA) and continuous quality improvement (CQI)
 - a. Understanding of concepts of QA and CQI
 - b. Participation in QA or CQI project
4. Informed consent
 - a. Concept of informed consent
 - i. Expressed or implied
 - ii. Written versus verbal
 - iii. Who may provide consent
 - iv. Medical record documentation
 - b. Elements of informed consent
 - i. Problem to be treated
 - ii. Proposed test or treatment
 - iii. Indications of treatment choice
 - iv. Expected results or goals of test or treatment
 - v. Disclosure of risks, complications and side effects
 - vi. Consequences of no treatment or delayed treatment
 - vii. Documentation of informed consent
 - c. Medical and surgical standard of care

Mesotherapy

1. History
 - a. Developed 1948 in France for lymphedema, musculoskeletal pain, dental pain
 - b. Nerotic and fat reductive effects shown on rats, using MRI, human biopsies
2. Technique
 - a. Used with injection or “Pistor gun”
3. Ingredients for fat reduction
 - a. Phosphatidylcholine and sodium deoxycholate
 - b. Deoxycholate, a bile salt/detergent, is active ingredient which emulsifies fat
4. Indications
 - a. Human treatments of submental area and abdominal fat
5. Treatment Course
 - a. Multiple spaced subcutaneous injections to cover field
 - b. Intense inflammation, edema, erythema, bruising within 24 hours
 - c. Inflammation and pain for 1 week
 - d. Gradual fibrosis and fat reduction within several weeks
 - e. Several treatment cycles required
6. Treatment of Adverse Events
 - a. a. Subcutaneous nodules
 - b. Atypical mycobacterial infections (due to injectant contamination)
 - c. FDA scrutiny due to use of compounding pharmacies

Neuromodulators

1. Evaluation
2. Indications
3. Contraindications
4. Technique
5. Complications/follow up

Peri-operative Assessment and Management

1. Pre-operative evaluation
 - a. Patient evaluation
 - i. Past medical history/review of systems
 - ii. Allergies
 - iii. Medications
 - 1) anticoagulants
 - 2) drug interactions
 - iv. Need for antibiotic prophylaxis
 - v. Alcohol and tobacco use
 - vi. Social history
 - b. Appropriate surgical preoperative physical examination
 - c. Cutaneous assessment
 - d. Appropriate diagnostic studies
2. Development of treatment plan
 - a. Assessments of risks/benefits of treatment plan
 - b. Informed consent to include alternative therapies
3. Interdisciplinary considerations
 - a. Appropriate medical consultation
 - b. Appropriate surgical consultation

Photographic Reproduction

1. Use of equipment
2. Photographic informed consent
3. Use of images (e.g., medical records / publication / presentation)
4. Patient's right to privacy

Resurfacing

1. Chemical Peels – light, medium, deep
2. Subcision
3. Dermabrasion
4. Laser
5. Non-ablative

Scar Revision

1. Principles of wound healing
2. Scar formation
 - a. Normal
 - b. Hypertrophic
 - c. Keloid
3. Recognition and management of suboptimal scar
 - a. Hypertrophy
 - b. Keloid
 - c. Dyschromia
 - d. Erythema
 - e. Wound contracture
 - f. Other
4. Principles of scar revision
5. Elongation and reorientation
 - a. Z-plasty
 - b. W-plasty
 - c. Geometric

6. Resurfacing
 - a. Dermabrasion
 - b. Shave abrasion
 - c. Skin graft
 - d. Laser
7. Non-surgical approaches
 - a. Intralesional and topical steroids
 - b. Silicone gel sheeting
 - c. Massage

Sclerotherapy

1. Evaluation
2. Indications
3. Contraindications
4. Technique
5. Materials
6. Complications/follow up
7. Other procedures for varicosities

Soft-tissue Fillers

1. Ideals of beauty
 - a. Mathematics of symmetry
 - b. Principles of facial shape and harmony
2. Facial anatomy and mapping
 - a. Facial aesthetics and changes associated with aging
 - b. The use of mathematical principles and proportions to achieve excellent filler results
 - c. Avoiding, diagnosing and treating complications
3. Evidence-based approach to patient assessment

4. Pre-procedural patient counseling (blood thinners/advise on stopping unnecessary bruise-causing medicines [e.g., ibuprofen], counseling on bruise-associated down-time, risks and benefits of arnica, what patients should be asked about autoimmune/connective tissue diseases, previous use of fillers / injectables and any adverse reactions, allergies especially to lidocaine and/or topical anesthetics)
5. Informed consent
 - a. Video consultations and consents
 - b. Off-label use
6. Molecular structure and mechanisms of filler action
7. The hyaluronic family and calcium hydroxylapatite
8. Long standing fillers and implants
 - a. Poly-L-lactic acid
 - b. Silicone
 - c. Collagen-PLLA
 - d. Permanent implants
9. Treatment planning and managing expectations
 - a. Patient preparation and comfort
 - b. Anesthesia pearls
10. Regional uses – technique for:
 - a. Lips
 - b. Forehead and glabellar regions
 - c. Periorbital area and tear trough
 - d. Nasolabial and perioral areas
 - e. Marionette lines and the pre-jowl sulcus
 - f. Mandibular border
 - g. Mid-face and temple volumizing

- h. Dorsal nose
 - i. Scars and acne scars
 - j. Aging hands
 - k. Temples
 - l. Ear lobes
11. Filler and injectable safety
 - a. Hyaluronidase
 12. Optimizing injectable outcomes
 13. Minimizing tools and maximizing results
 - a. Cannulas
 - b. Assisted filler injection devices
 14. Managing complications
 15. Advanced techniques

Surgical Technique

1. Antiseptic preparation
 - a. Surgical site preparation
 - i. Choice of antiseptic solution
 - ii. Skin prep technique
 - b. Staff preparation
 - i. Hand washing/surgical scrubbing
 - ii. Gowning and gloving
 - c. Surgical site draping
 - d. Instrument handling and sterility
2. Anesthesia
 - a. Topical
 - b. Local
 - c. Regional
 - d. Special considerations
 - i. Preoperative anxiolytics
 - ii. Conscious sedation

Ultrasound / Radiofrequency / Infrared Tissue Tightening

1. Underlying scientific basis
 - a. Dermal and subcutaneous zones of thermal injury
 - b. Placement of thermal coagulation zones close together at various levels of depth
 - c. Known and postulated effects
 - i. Immediate dermal tissue-tightening via thermal contraction
 - ii. Contraction of fibrous septae of fat
 - iii. Collagen remodeling over 60-90 days
 - iv. Possibly effects on SMAS
2. Indications for use/patient selection
 - a. For patients with early wrinkles or laxity who do not desire surgical treatment
 - b. Limited effectiveness in severe sagging or when loss of substructure
 - c. Need for counseling due to idiosyncratic ineffectiveness in a subset of patients
3. Expected outcomes
 - a. Best-case scenario of modest tightening (2 mm browlift, midface tightening, jawline and neck improved definition)
 - b. Duration of effect: unknown, likely months to years, but reduced by continued aging
4. FDA-approved indications
 - a. Initial indication for brow elevation
 - b. Subsequent additional indications for non-invasive aesthetic lift

5. Preoperative care
 - a. Premedication with benzodiazepines, narcotics, and/or topical anesthesia, if desired
 - b. Medicated patient may need to arrange for transportation
 - c. Oral antivirals in patients with history of herpes infection may be indicated
 - d. Consider discontinuation of aggressive facial regimen (e.g., topical retinoids one week prior)
6. Intraoperative cautions
 - a. Remind patient of likely significant warmth and slight discomfort
 - b. Ensure familiarity with equipment, use of valid protocols, use on non-expired tips
 - c. Use appropriate eye protection when treating periorbital area
 - d. Do not treat over ocular globe or aggressively over bony protuberances
 - e. Severe pain may be a sign of overtreatment or other problems – cease treatment
 - f. For patients unable to tolerate higher energy treatments, consider multiple passes with lower energies as these have been shown to be nearly equally effective and sometimes better tolerated
7. Common expected post-operative course
 - a. Erythema and edema for one to several days
 - b. Residual tenderness managed by OTC drugs or mild narcotics

8. Uncommon to rare adverse events
 - a. Severe ecchymoses
 - b. Local atrophy (“footprints in the snow” corresponding to treatment tip)
 - c. Wheals and plaques
 - d. Erosions and ulcers
 - e. Hypo- and hyperpigmentation
 - f. Dysesthesia (persistent)/nerve injury
 - g. Ocular injury (during periorbital treatment)
 - h. Scar
9. Management of adverse events
 - a. Rapid return to clinic for evaluation
 - b. Consider topical steroids for local tissue reaction
 - c. If erosion/ulcer, consider culture and appropriate treatment
 - d. If persistent severe pain after treatment, consider oral steroids
 - e. If nerve injury or ocular injury suspected, consult appropriate specialists
10. Typical post-treatment course
 - a. Swelling and redness x 1 week
 - b. Partial return to baseline over ensuing weeks, with some loss of apparent loss of tightening and wrinkle reduction as swelling remits
 - c. Additional benefits visible after 60-90 days, when collagen remodeling occurs
11. Retreatment
 - a. One treatment may be enough
 - b. Select devices may require recurrent treatments
 - c. If repeat treatments are desired, may be appropriate to deliver these after intervals of at least 90 days or greater to ensure collagen remodeling benefit from prior treatment is seen

Wound Healing

1. Basic science
 - a. Phases of wound healing
 - b. Tensile strength
 - c. Theories of epidermal and dermal wound healing
2. Factors that influence wound healing
 - a. Environmental
 - b. Local
 - c. Systemic
 - d. Genetic
3. Anatomic and skin type considerations
4. Microbiology
 - a. Normal skin flora
 - b. Pathogenic organisms
5. Biomechanics and histology of normal skin and scars
6. Wound dressings
 - a. Materials
 - b. Technique

Core Competencies

Patient Care

1. Develop competence in identification of patients whose conditions would benefit by procedures unique to cosmetic dermatologic surgery and who should be referred to other specialists.
2. Demonstrate ability to gather necessary medical history for case management such as allergies, medical devices (pacemaker / defibrillator), bleeding disorders.
3. Demonstrate ability to take effective before-and-after photos (Frankfort Horizontal, other techniques)
4. Demonstrate knowledge of when to order additional testing.
5. Demonstrate ability to counsel patients concerning their treatment course.
6. Demonstrate the ability to use the Internet to investigate the literature when necessary.
7. Demonstrate ability to recognize Body Dysmorphic Disorder (BDD).

Medical/Surgical Knowledge

1. Attain advanced understanding of cutaneous structure and function.
2. Attain advanced understanding of cosmetic dermatologic surgery.

3. Demonstrate knowledge of surgical anatomy, and basic tenets of facial aesthetics and contouring.
4. Gain advanced knowledge of the use of dermatologic procedure tools: Wood's lamp, epiluminescent, surgical instrumentation, lasers, and liposuction equipment.
5. Become knowledgeable in the skills of sterilization of equipment and aseptic technique.
6. Acquire advanced knowledge of anesthesia, preoperative sedation, local and regional anesthesia and conscious sedation and closure materials.
7. Demonstrated proficiency in cosmetic dermatologic surgery based on the performance of a minimum of 300 cosmetic dermatologic surgery cases per year.

Practiced-based Learning

1. Demonstrate ability to anticipate complications/outcomes and utilization.
2. Demonstrate knowledge of and apply principles of evidence-based medicine in practice.
3. Display ability to use multiple sources, including information technology to optimize lifelong learning and support patient care decisions.
4. Display ability to facilitate the learning of students, peers, and other health care professionals.

5. Exhibit skills to analyze practice experience and perform practice-based improvement in cognitive knowledge, observational skills, formulating a synthesis and impression, and procedural skills.
6. Use knowledge gained through medical literature and didactic programs and apply to patient's cosmetic concerns in cosmetic dermatologic surgery.
7. Analyze own practice for needed improvements.
8. Apply critical review of literature related to patient concerns.
9. Assess means of improving surgical practices through review of charts and participation in quality improvement projects.

Communication and Interpersonal Skills

1. Develop skills necessary to supervise and train front office personnel and clinical staff.
2. Demonstrate the ability to provide clear written reports including a plan for treatment with recommended follow-up or additional studies.
3. Clarity and effectiveness of notes.
4. Demonstrate appropriate telephone communicating skills.
5. Demonstrate skills in obtaining informed consent, including effective communication to patients of the procedure, alternatives and possible complications.

6. Exhibit ability to demonstrate good listening skills and direct, compassionate communication when dealing with the dissatisfied patient.

Professionalism

1. Fellows must exhibit ability to document all operative experiences including pre- and post-photographs for appropriate cases.
2. Demonstrate altruism (putting the interests of patients and others above own self-interest)
3. Demonstrate compassion: be understanding and respectful of the patients, patient families, and staff and physicians caring for patients.
4. Demonstrate honesty with patients and all members of the health care team.
5. Demonstrate positive work ethic and habits, including punctuality, availability, and “doggedness.”
6. Maintain a professional appearance.
7. Exhibit skills to interact with others without discrimination.
8. Demonstrate dependability and cooperativeness.
9. Exhibit emotional intelligence/maturity.
10. Demonstrate knowledge of issues of impairment, and obligations for impaired physician reporting and resources and options for care.
11. Demonstrate principles of confidentiality with all information at all times.

12. Demonstrate excellence: perform responsibilities at the highest level and continue active learning throughout one's career.
13. Demonstrate an understanding of broad principles of biomedical ethics.
14. Demonstrate knowledge of regulatory issues pertaining to the use of human subjects in research.

Systems-based Learning

1. Practice cost-effective care without compromising quality.
2. Know how different practice systems function to deliver care.
3. Use allied health professionals as a part of the care team.
4. Obtain and provide appropriate consultation and advocate for patients within the health care system.
5. Participate in clinical operations improvement.
6. Demonstrate knowledge of basic health care reimbursement methods.
7. Demonstrate knowledge of basic practice management principles such as budgeting, record keeping, medical records, and recruitment, hiring, supervision and management of staff.

Cosmetic Dermatologic Surgery Fellowship Program Bibliography

Advanced Techniques

Goldman MP, Weiss RA. *Advanced Techniques in Dermatologic Surgery*. Taylor & Francis Group. New York, 2006

Ambulatory Phlebectomy

Goldman MP, Geogiev M, Ricci S. *Ambulatory Phlebectomy: A Practical Guide for Treating Varicose Veins, Second Edition*. Taylor & Francis Group. New York. 2005

Anatomy and Physiology

Robinson J Anatomy for procedural dermatology.
Robinson J, Hanke CW, Siegel DM, Fratila A (eds)
IN: *Surgery of the Skin, Second Edition*. London:
Mosby & Elsevier.2010

Salasche SJ, Bernstein G, Senkarik M. *Surgical Anatomy of the Skin*. Norwalk. Appleton and Lange, 1988.

Leffell DJ, Brown MD. *Manual of Skin Surgery: A Practical Guide to Dermatologic Procedures*. New York. John Wiley and Sons, 1997:31-49.

Larrabee WF, Makielski KH, Henderson JL. *Surgical Anatomy of the Face*. New York: Lippincott Williams and Wilkins, 2004.

Robinson JK, Ratcliffe Anderson E. Skin structure and surgical anatomy. In: Robinson JK, et al. (eds). *Surgery of the Skin: Procedural Dermatology*. New York: Elsevier, 2005:3-23.

Davila M, Nguyen TH. Surgery and anatomy. In: Ali A (ed). *Dermatology: A Pictorial Review*. New York: McGraw-Hill, 2007:175-204.

Aasi SZ, Pennington B. Dermatologic surgery: introduction to anatomy and approach. In: Wolff K, et al. (eds). *Fitzpatrick's Dermatology in General Medicine*. New York: McGraw-Hill, 2008:2289-301.

Flowers FP, Zampogna JC. Surgical anatomy of the head and neck. In: Bologna JL, et al. (eds). *Dermatology*. Spain: Mosby Elsevier, 2008:2159-71.

Graham RH. Extraocular muscles, action. Available at:
<http://emedicine.medscape.com/article/1189759-overview>

Goldman GD and Dzubow LM. *Facial Flaps Surgery*. New York: McGraw-Hill, 2013.

Anesthesia

Soriano T, Beynet DP. Anesthesia and analgesia. In: Robinson JK, et al., (eds). *Surgery of the Skin: Procedural Dermatology, Second Edition*. New York: Elsevier, 2010:43-63.

Hruza GJ. Anesthesia. In: Bologna JL et al. (eds). *Dermatology*. Spain: Mosby Elsevier, 2008:2173-81.

Aasi SZ, Pennington B. Dermatologic surgery: introduction to anatomy and approach. In: Wolff K et al. (eds). *Fitzpatrick's Dermatology in General Medicine*. New York: McGraw-Hill, 2008:2289-301.

Stoelting, RK, Hillier SC. *Pharmacology & Physiology in Anesthetic Practice*. New York: Lippincott Williams, 2006:179-207.

Clark LE, Mellette JR. The use of hyaluronidase as an adjunct to surgical procedures. *Dermatol Surg* 1994;20:842-844.

Beasley KL, Weiss MA, Weiss RA. Soft tissue augmentation using a two-way connector to supplement hyaluronic acid filler with 1% lidocaine hydrochloric acid with epinephrine 1:100,000: our experience and observations. *Dermatol Surg*. 2010 Apr;36(4):524-6.

Weinkle S. Efficacy and tolerability of admixing 0.3% lidocaine with Dermicol-P35 27G for the treatment of nasolabial folds. *Dermatol Surg*. 2010 Mar;36(3):316-20

Brandt F, Bank D, Cross SL, Weiss R. A lidocaine-containing formulation of large-gel particle hyaluronic acid alleviates pain. *Dermatol Surg*. 2010 Nov;36 Suppl 3:1876-8

Lupo MP, Swetman G, Waller W. The effect of lidocaine when mixed with large gel particle hyaluronic acid filler tolerability and longevity: a six-month trial. *J Drugs Dermatol*. 2010 Sep;9(9):1097-100.

Raspaldo H, De Boule K, Levy PM. Longevity of effects of hyaluronic acid plus lidocaine facial filler. *J Cosmet Dermatol*. 2010 Mar;9(1):11-5

Marmur E, Green L, Busso M. Controlled, randomized study of pain levels in subjects treated with calcium hydroxylapatite premixed with lidocaine for correction of nasolabial folds. *Dermatol Surg*. 2010 Mar;36(3):309-15.

Blepharoplasty/Brow Lifting

Moy RL, Fincher EF, and Alam M., 2006, *Blepharoplasty*, Elsevier Saunders, Philadelphia, PA.

Cellulite Treatment

Goldman MP, Hexsel D. *Cellulite: Pathophysiology and Treatment, Second Edition*. Informa. New York, 2010

Complications

Stasko T. Complications of cutaneous procedures. IN: Roenigk RK, Roenigk HH (eds) *Roenigk & Roenigk's Dermatologic Surgery Principles and Practice, Second Edition* Marcel Dekker New York, NY 1996 page 149-176.

Maloney ME. Management of surgical complications and suboptimal results. IN: Wheeland RG (ed) *Cutaneous Surgery*. WB Saunders, Philadelphia PA 1994 page 921-934.

Cryolipolysis

Manstein D, Laubach H, Watanabe K, Farinelli W, Zurakowski D, Anderson RR. Selective cryolysis: a novel method of non-invasive fat removal. *Lasers Surg Med*. 2008 Nov;40(9):595-604

Zelickson B, Egbert BM, Preciado J, Allison J, Springer K, Rhoades RW, Manstein D. Cryolipolysis for noninvasive fat cell destruction: initial results from a pig model. *Dermatol Surg*. 2009 Oct;35(10):1462-70.

Klein KB, Zelickson B, Riopelle JG, Okamoto E, Bachelor EP, Harry RS, Preciado JA. Non-invasive cryolipolysis for subcutaneous fat reduction does not affect serum lipid levels or liver function tests. *Lasers Surg Med*. 2009 Dec;41(10):785-90.

Nelson AA, Wasserman D, Avram MM. Cryolipolysis for reduction of excess adipose tissue. *Semin Cutan Med Surg*. 2009 Dec;28(4):244-9.

Shek SY, Chan NP, Chan HH. Non-invasive cryolipolysis for body contouring in Chinese a first commercial experience. *Lasers Surg Med*. 2012 Feb;44(2):125-30.

Dierickx CC, Mazer JM, Sand M, Koenig S, Arigon V. Safety, Tolerance, and Patient Satisfaction With Noninvasive Cryolipolysis. *Dermatol Surg*. 2013

Dermabrasion

Monheit GD, Chastain MA., 2008, Chemical and Mechanical Skin Resurfacing, in Bologna JL et al. 2nd ed., *Dermatology*, Elsevier Inc.

Alt TH, Goodman GJ, Coleman WP III, et al. Dermabrasion. In: Coleman WP III, Hanke CW, Alt TH, Asken S, eds. *Cosmetic Surgery of the Skin*. Vol 85. 2nd ed. St Louis, Mo: Mosby; 1997:112-151.

Yarborough JM Jr. Dermabrasive surgery. State of the art. *Clin Dermatol*. 1987 Oct-Dec;5(4):75-80.

Roenigk HH. Dermabrasion: state of the art 2002. *J Cosmet Dermatol*. 2002 Jul;1(2):72-87

Alt TH: Facial dermabrasion: advantages of the diamond fraise technique. *J Dermatol Surg Oncol* 1987; 13:618-624.

Katz BE, Oca AG: A controlled study of the effectiveness of spot dermabrasion ('scarabrasion') on the appearance of surgical scars. *J Am Acad Dermatol* 1991; 24:462-466.

Rubenstein R, Roenigk HH Jr, Stegman SJ, Hanke CW. Atypical keloids after dermabrasion of patients taking isotretinoin. *J Am Acad Dermatol*. Aug 1986;15(2 Pt1):280-5.

Mandy SH. Tretinoin in the preoperative and postoperative management of dermabrasion. *J Am Acad Dermatol.* Oct 1986;15(4 Pt 2):878-9, 888-9.

Hanke CW, Roenigk HH Jr, Pinski JB. Complications of dermabrasion resulting from excessively cold skin refrigeration. *J Dermatol Surg Oncol.* Sep 1985;11(9):896-900

Pinski JB. Dressings for dermabrasion: new aspects. *J Dermatol Surg Oncol.* Jun 1987;13(6):673-7.

Harmon CB. Dermabrasion Procedures. Medscape reference.

<http://emedicine.medscape.com/article/1126231-overview> (June 30, 2011).

Emergency Preparedness

Cabell CE, Maloney M. Surgical complications and emergencies. IN: Nouri K, Leal-Khouri S (eds) *Techniques in Dermatologic Surgery.* Mosby Edinburgh London,2003:85-102.

Fader DJ, Johnson TM. Medical issues and emergencies in the dermatology office. *J Am Acad Dermatol.* 1997;36(1);1-18.

Face Lifts

Moy R and Fincher EF., 2006, *Advanced Face Lifting,* Elsevier Saunders, Philadelphia, PA.

Fat Transfer

Badalamente MA, Hurst LC. Efficacy and safety of injectable mixed collagenase subtypes in the treatment of Dupuytren's Contracture. *J Hand Surg* 2007;32:767-774.

Kaufman MR, Bradley JP, Dickinson B, *et al.* Autologous fat transfer national consensus survey: trends in techniques for harvest, preparation, and application, and perception of short- and long-term results. *Plast Reconstr Surg* 2007;119:323-31.

Lee JE, Kim I, Kim M. Adipogenic differentiation of human adipose tissue-derived stem cells obtained from cryopreserved adipose aspirates. *Dermatol Surg*. 2010;36:1078-83.

Lemperle G, Holmes RE, Cohen SR, Lemperle SM. A Classification of Facial Wrinkles. *Plast Reconstr Surg*. 2001;108:1735-50.

Moscatello DK, Schiavi J, Marquart JD, Lawrence N. Collagenase-assisted fat dissociation for autologous fat transfer. *Dermatol Surg* 2008;34:1314-21.

Moscatello DK, Dougherty M, Narins RS, Lawrence N. Cryopreservation of human fat for soft tissue augmentation: viability requires use of cryoprotectant and controlled freezing and storage. *Dermatolog Surg* 2005;31:1506-1510.

Piasecki JH. Gutowski KA. Lahvis GP. Moreno KI. An experimental model for improving graft viability

and purity. *Plast Reconstr Surg* 2007;119:1571-1583.

Schuller-Petrovic S. Improving the aesthetic aspect of soft tissue defects on the face using autologous fat transplantation. *Facial Plast Surg* 1997;13:119-24.

Sommer B, Sattler G. Current concepts of fat graft survival: histology of aspirated adipose tissue and review of the literature. *Dermatol Surg* 2000;26:1159-66.

Coleman SR. Facial augmentation with structural fat grafting. *Clin Plast Surg*. 2006 Oct;33(4):567-77.

Butterwick KJ, Nootheti PK, Hsu JW, Goldman MP. Autologous fat transfer: an in-depth look at varying concepts and techniques. *Facial Plast Surg Clin North Am*. 2007 Feb;15(1):99-111, viii. Review.

Donofrio LM. Techniques in facial fat grafting. *Aesthet Surg J*. 2008 Nov-Dec;28(6):681-7

Hair Transplantation

Unger WP, Cotterill PC. Hair transplantation with alopecia reduction. Narins RS (ed) *Cosmetic Surgery*. Marcel Dekker, Inc. New York 2001 page 795-846.

Parsley WM, Waldman MA. Hair restoration. In: Leonard A, Hanke CW (eds). *Cosmetic dermatology*

procedure manual. USA: Physicians' Continuing Education Corp, 2007:283-96.

In: Wolff K, et al. (eds). Fitzpatrick's dermatology in general medicine. New York: McGraw-Hill, 2008:2394-402.

Stough DB, Whitworth JM, Seager DJ. Hair restoration. In: Bologna JL, et al. (eds). *Dermatology*. Spain: Mosby Elsevier, 2008:2355-68.

Bernstein RM. Follicular unit hair transplantation. In: Robinson JK, et al. (eds). *Surgery of the Skin: Procedural Dermatology*. New York: Elsevier, 2010:485-512.

Olsen EA. Female pattern hair loss. *J Am Acad Dermatol* 2001;45:570-80.

Olsen EA. The midline part: an important physical clue to the diagnosis of androgenetic alopecia in women. *J Am Acad Dermatol* 1999;40:106-9.

Laser Surgery

Tierney EP, Hanke CW. Ablative fractionated CO₂ , laser resurfacing for the neck: prospective study and review of the literature. *J Drugs Dermatol* 2009;8:723-31.

Kouba DJ, et al. Review of fractional photothermolysis: treatment indications and efficacy. *Dermatol Surg* 2009;35:1445-61.

Tierney EP, Kouba DJ, et al. Review of fractional photothermolysis: treatment indications and efficacy. *Dermatol Surg* 2009;35:1445-61.

Rizzo C, Brightman L, et al. Outcomes of childhood hemangiomas treated with the pulsed-dye laser with dynamic cooling:A retrospective chart analysis. *Dermatol Surg* 2009;35:1947-54.

Sadighha A, Saatee S, et al. Efficacy and adverse effects of q-switched ruby laser on solar lentigines:A prospective study of 91 patients with Fitzpatrick skin type II,III,IV. *Dermatol Surg* 2008;34:1465-68.

Wang CC, et al. A comparison of q-switched alexandrite laser and intense pulsed light for the treatment of freckles and lentigines in Asian persons: A randomized, physician-blinded, split-face comparative trial. *JAAD* 2006;54:804-10.

Goldman MP, Fitzpatrick RE (eds) *Cutaneous Laser Surgery*. Mosby St Louis, 1999 Entire Book

Anderson RR. Laser-tissue interactions. IN: Goldman MP, Fitzpatrick RE (eds) *Cutaneous Laser Surgery*. Mosby St Louis, MI. 1999 page 1-18.

Mariwalla K, Dover JS. The use of lasers for decorative tattoo removal. *Skin Ther Lett* 2006;11(5).

Prinz BM, Vavricka SR, Graf P, et al. Efficacy of laser treatment of tattoos and using lasers emitting wavelengths of 532 nm, 755 nm and 1064 nm. *Br J of Dermatol* 2004;150:245-51.

Elsaiei ML, Baumann LS and Elsaiee LT. Striae distensae (stretch marks) and different modalities of therapy: an update. *Dermatol Surg* 2009;35:563-73.

Hirsch RJ, Wall TL, Avram MM, et al. Principles of laser-skin interaction. In: Bologna JL, et al. (eds). *Dermatology*. Spain: Mosby Elsevier, 2008:2089-97.

Alexiades-Armenakas MR, Dover JS, Arndt KA. Laser therapy. In: Bologna JL, et al. (eds). *Dermatology*. Spain: Mosby Elsevier, 2008:2099-120.

Iyengar V, Arndt KA, Rohrer TE. Laser treatment of tattoos and pigmented lesions. In: Robinson JK, et al. (eds). *Surgery of the Skin: Procedural Dermatology*. New York: Elsevier, 2005:599-609.

Alster TS, Tanzi EL. Laser skin resurfacing: ablative and non-ablative. In: Robinson JK, et al. (eds). *Surgery of the Skin: Procedural Dermatology*. New York: Elsevier, 2005:611-24.

Kauvar ANB, Troilius A. Laser and light treatment of acquired and congenital vascular lesions. In: Robinson JK, et al. (eds). *Surgery of the Skin: Procedural Dermatology*. New York: Elsevier, 2005:625-44.

Sakamoto FH, Wall T, Avram MM, et al. Lasers and flashlamps in dermatology. In: Wolff K, et al. (eds). Fitzpatrick's dermatology in general medicine. New York: McGraw-Hill, 2008:2263-88.

Galen F, Geronemus RG. Short-term side effects of fractional photothermolysis. *Dermatol Surg* 2006;31:1245-49.

Holzer AM, Burgin S, Levine VJ. Adverse effects of a Q-switched laser treatment of tattoos. *Dermatol Surg* 2008;34:118-22.

Bhatt N, Alster TS. Laser surgery in dark skin. *Dermatol Surg* 2008;34:184-95.

Graber EM, Tanzi EL, Alster TS. Side effects and complications of fractional laser photothermolysis: experience with 961 treatments. *Dermatol Surg* 2008;34:301-7.

Goldberg DJ (ed). *Procedures in Cosmetic Dermatology Series: Lasers and Light: Volume 1*. New York: Elsevier Saunders, 2007.

Goldberg DJ (ed). *Procedures in Cosmetic Dermatology Series: Lasers and Light: Volume 2*. New York: Elsevier Saunders, 2007.

Anderson RR, Parrish JA. The optics of human skin. *J Invest Dermatol* 1981;77:13-19.

Anderson RR, Parrish JA. Selective photothermolysis: precise microsurgery by selective absorption of pulsed radiation. *Science* 1983;220:524-27.

Ibrahimi OA, Avram MM, Hanke CW, Kilmer SL, Anderson RR. Laser hair removal. *Dermatol Ther.* 2011 Jan-Feb;24(1):94-107.

Altshuler GB, Anderson RR, Manstein D, Zenzie HH, Smirnov MZ. Extended theory of selective photothermolysis. *Lasers Surg Med.* 2001;29(5):416-32

Manstein D, Herron GS, Sink RK, Tanner H, Anderson RR. Fractional photothermolysis: a new concept for cutaneous remodeling using microscopic patterns of thermal injury. *Lasers Surg Med.* 2004; 34(5):426-38

Goldman MP, Fitzpatrick, RE, Kilmer, SL, Ross EV, Weiss RA. *Lasers and Energy Devices for the Skin, Second Edition.* CRC Press, Taylor & Francis Group, Boca Raton, FL. 2013

Liposuction

Klein JA. The tumescent technique for liposuction surgery. *Am J Cosmet Surg* 1987; 4:263-267.

Coleman WP, Glogau RG, Klein JA, Moy RL, Narins RS, Chuang T, Farmer, ER, Lewis CW, Lowery BJ. Guidelines for care of liposuction. *J Am Acad Dermatol.* 2001; 45:438-447.

Coldiron B, Coleman WP, Cox SE, Jacob C, Lawrence N, Kaminer M, Narins RS. ASDS guidelines of care for tumescent liposuction. *Dermatol Surg*. 2006;32:709-716.

Mysore V et al. Tumescent liposuction: Standard guidelines of care. *Indian J Dermatol Venereol Leprol*. 2008;74:S54-S60.

Hornberger J, Grimes K, Naumann M, et al. Recognition, diagnosis, and treatment of primary focal hyperhidrosis. *J Am Acad Dermatol*. 2004; 51:274-86.

Solish N, Bertucci V, Dansereau A, et al. A comprehensive approach to the recognition, diagnosis, and severity-based treatment of focal hyperhidrosis: Recommendations of the Canadian hyperhidrosis advisory committee. *Dermatol Surg*. 2007; 33:908-923.

Klein JA. Tumescent technique for regional anesthesia permits lidocaine doses of 35-45mg/kg for liposuction. Peak plasma are diminished and delayed 12 hours. *J Dermatol Surg Oncol* 1990;16:248-263.

Ostad A, Kageyama N, Moy RL. Tumescent anesthesia with a lidocaine dose of 55mg/kg is safe for liposuction. *Dermatol Surg* 1996;22:921-927.

Nordstrom H, Stange K. Plasma Lidocaine Levels and risks after liposuction with tumescent

anaesthesia. *Acta Anaesthesiol Scand* 2005; 49:1487-1490.

Rubin JP, Xie Z, Davidson c, Rosow CD, Chang Y, May JW. Rapid absorption of tumescent lidocaine above the clavicles: a prospective clinical study. *Plast Reconstr Surg* 2005; 115:1744-1751

Matarasso A, Courtiss EH. Suction mammoplasty:the use of suction lipectomy to reduce large breasts. *Plast Reconstr Surg* 1991; 87:709-717.

Gray LN. Update on experience with liposuction breast reduction. *Plast Reconstr Surg* 2001; 108(4): 1006-1010.

Moskovitz MJ, Muskin E, Baxt SA. Outcome study in liposuction breast reduction. *Plast Reconstr Surg*. 2004; 114(1):55-60.

Moskovitz MJ, Baxt SA, Jain AK, Hausman RE. Liposuction breast reduction: a prospective trial in African American Women. *Plast Reconst Surg*. 2007; 119:718-726.

Mellul SD, Dryden RM, Remigio DJ, Wulc AE. Breast reduction performed by liposuction. *Dermatol Surg* 2006; 32:1124-1133.

LeeMR, Ryman WJ. Liposuction for axillary hyperhidrosis. *Australas J Dermatol*. 2005 May; 46(2):76-9.

Tsai RY, Lin JY. Experience of tumescent liposuction in the treatment of osmidrosis. *Dermatol Surg* 2001; 27:446-8.

Darabaneanu S, Darabaneanu HA, Niederberger U, Russo PA, Lischner S, Hauschild A. Longterm effectiveness of subcutaneous sweat gland suction curettage for axillary hyperhidrosis: a prospective gravimetrically controlled study. *Dermatol Surg* 2008; 34:1170-1177.

Perng CK, Yeh FL, MA H, et al. Is the treatment of axillary osmidrosis with liposuction better than with open surgery? *Plast Reconst Surg* 2004;114:93.

Lee D, Cho SH, Kim YC, Park JH, Lee SS, Park SW. Tumescent Liposuction with dermal curettage for treatment of axillary osmidrosis and hyperhidrosis. *Dermatol Surg* 2006; 32:505-511.

Seo SH, Jang BS, Oh CK, Kwon KS, Kim MB. Tumescent superficial liposuction with curettage for treatment of axillary bromhidrosis. *J Eur Acad Dermatol Venereol.* 2008 Jan; 22(1):30-5.

Bechara FG, Sand M, Sand D, Altmeyer P, Hoffmann K. Surgical treatment of axillary hyperhidrosis: A study comparing liposuction cannulas with a suction-curettage cannula. *Ann Plast Surg* 2006; 56:654-657.

Bechara FG, Sand M, Tomi NS, Altmeyer P, Hoffmann K. Repeat liposuction curettage treatment of axillary hyperhidrosis is safe and effective. *BR J Derm* 2007; 157:739-743.

Bechara FG, Sand M, Hoffmann K, Altmeyer P. Aggressive shaving after combined liposuction curettage for axillary hyperhidrosis leads to more complications without further benefit. *Dermatol Surg* 2008; 34:952-953.

Choi CW, Kim J, Moon SE, Youn SW, Park KC, Huh CH. Treatment of lipomas assisted with tumescent liposuction. *J Eur Acad Dermatol Venereol* 2007; 21:243-46.

Babovic S, Bite U, Karnes PS, Babovic-Vuksanovic D. Liposuction: a less invasive surgical method of debulking plexiform neurofibromas. *Dermatol Surg* 2003; 29:785-787.

Robles-Cervantes JA, Yanez-Diaz S, Cardenas-Camarena L. Modification of insulin, glucose and cholesterol levels in non-obese women undergoing liposuction – Is liposuction metabolically safe? *Ann Plast Surg* 2004; 52(1):64-67.

Giugliano G, Nicoletti G, Grella E, Giugliano F, Esposito K, Scuderi N, D'Andrea F. Effect of liposuction on insulin resistance and vascular inflammatory markers in obese women. *Br J Plast Surg* 2004; 57:190-194.

Klein S, Fontana L, Young VL, Coggan AR, Kilo C, Patterson BW, Mohammed BS. Absence of an effect of liposuction on insulin action and risk factors for coronary heart disease. *N Engl J Med* 2004; 350:2549-2557.

Yun PL, Bruck M, Felsenfeld L, Katz BE. Breast enlargement after liposuction: comparison of incidence between power liposuction versus traditional liposuction. *Dermatol Surg* 2003; 29:165-167.

Frew KE, Rossi A, Bruck MC, Katz BE, Narins RS. Breast enlargement after liposuction: comparison of incidence between power liposuction versus traditional liposuction. *Dermatol Surg* 2005; 31:292-296.

Finzi E. Breast enlargement induced by liposuction. *Dermatol Surg* 2003;29; 928-930.

Broughton G, Horton B, Lipschitz A, Kenkel JM, Brown SA, Rohrich RJ. Lifestyle Outcomes, Satisfaction, and Attitudes of Patients after Liposuction: A Dallas Experience. *Plast Reconstr Surg* 2006; 117: 1738-1749.

Lawrence L, Butterwick KJ. Immediate and long-term postoperative care and touch ups. In Narins RS. *Safe Liposuction and Fat Transfer*. New York: Marcel Dekker 2003; 329-341.

Bernstein G, Hanke CW. Safety of liposuction: A review of 9478 cases performed by dermatologists. *J Dermatol Surg Oncol.* 1988; 14:1112-4.

Hanke CW, Bernstein G, Bullock S. Safety of tumescent liposuction in 15,336 patients. *Dermatol Surg.* 1995; 21:459-462.

Coleman III WP, Hanke CW, Lillis P, et al. Does the location of the surgery or the specialty of the physician affect malpractice claims in liposuction. *Dermatol Surg.* 1999; 25:343-7.

Houseman TS, Lawrence N, Mellen BG et al. The safety of liposuction: results of a national survey. *Dermatol Surg* 2002; 28:971-8.

Katz BE, Bruck MC, Felsenfeld L, Frew KE. Power liposuction: a report on complications. *Dermatol Surg* 2003; 29:925-927.

Hanke W, Cox SE, Kuznets N, Coleman WP. Tumescent liposuction report performance measurement initiative: national survey results. *Dermatol Surg* 2004; 30:967-978.

Coldiron BM, Healy C, Bene NI. Office surgery incidents: what seven years of Florida data show us. *Dermatol Surg.* 2008 Mar; 34(3):258-91.

Klein JA, Kassardjian N. Lidocaine toxicity with tumescent liposuction. A case report of probably drug interactions. *Dermatol Surg* 1997 Dec; 23(12):1169-74.

Martinez MA, Ballesteros S, Segura LJ, Garcia M. Reporting a fatality during tumescent liposuction. *Forensic Sci Int* 2008 Jun 10; 178(1):e11-6.

Gibbons MD, Lim RB, Carter PL. Necrotizing fasciitis after tumescent liposuction. *Am Surg* 1998 May;64(5):458-60.

Gilliland MD, Coates N. Tumescent liposuction complicated by pulmonary edema. *Plast Reconstr Surg*. 1997 Jan;99(1):215-9.

Jacob CI, Weisenborn EJ. Liposuction and menstrual irregularities. *Dermatol Surg* 2004; 30:1035-1037.

Andrews TR, Perdakis G, Shack RB. Herpes zoster as a rare complication of liposuction. *Plast Reconstr Surg* 2004;113(6):1838-1840.

Prado A, Andrades P, Danilla S, Leniz P, Castillo P, Gaete F. A prospective, randomized, double-blind, controlled clinical trial comparing laser-assisted lipoplasty with suction assisted lipoplasty. *Plast Reconstr Surg* 2006; 118:1032-1045.

Yang CH, Hsu HC, Shen SC, Juan WH, Hong HS, Chen CH. Warm and neutral tumescent anesthetic solutions are essential factors for a less painful injection. *Dermatol Surg* 2006; 32:1119-1123.

Wollina U, Kostler E, Schonlebe J, Haroske G. Tumescent suction curettage versus minimal skin resection with subcutaneous curettage of sweat glands in axillary hyperhidrosis. *Dermatol Surg* 2008; 34:709-716.

Hong YG, Kim HT, Seo SW, et al. Impact of large-volume liposuction on serum lipids in orientals: a pilot study. *Aest Plast Surg* 2006;30:327-332

Gardner CD, Kiazand A, Alhassan S, et al. Comparison of the Atkins, Zone, Ornish, and LEARN diets for change in weight and related risk factors among overweight perimenopausal women. *JAMA*, 2007; 297(9) 969-977

Pontiroli AE, Frig F, Paganelli M, Folli F. In morbid obesity, metabolic abnormalities and adhesion molecules correlate with visceral fat, not with subcutaneous fat: effect of weight loss through surgery. *Obes Surg* 2009;19:745-750

Zelickson B, Egbert BM, Preciado J, et al. Cryolipolysis for noninvasive fat cell destruction: initial results from a pig model. *Dermatol Surg* 2009; 35:1-9

Mann MW, Palm MD, Sengelman RD. New advances in liposuction technology. *Semin Cutan Med Surg* 2008; 27(1):72-82

Manstein D, Laubach H, Watanabe K, et al. Selective cryolysis: a novel method of non-invasive fat removal. *Lasers in Surg and Med* 2008; 40:595-604

Foster KW, Kouba DJ, Hayes J, et al. Reductions in thigh and infraumbilical circumference following treatment with a novel device combining ultrasound, suction, and massage. *J Drugs in Dermatol* 2008; 7(2):113-115

Kim KH, Geronemus RG. Laser lipolysis using a novel 1,064nm Nd:YAG laser. *Dermatol Surg* 2006; 32:241-248

Habbema L. Safety of liposuction using exclusively tumescent local anesthesia in 3,240 consecutive cases. *Dermatol Surg* 2009; 35:1-8

Brown SA, Greenbaum L, Shtukmaster S, et al. Characterization of nonthermal focused ultrasound for noninvasive selective fat cell disruption (lysis): technical and preclinical assessment. *Plast Reconstr Surg* 2009; 124:92-101

Teitelbaum SA, Burns JL, Kubota J, et al. Noninvasive body contouring by focused ultrasound: safety and efficacy of the contour I

device in a multicenter, controlled, clinical study.
Plast Reconstr. Surg 2007; 120:779-789

Housman TS, Lawrence N, Mellen BG, et al. The safety of liposuction: results of a national study. Dermatol Surg. 2002; 28:971-978.

Coleman III WP, Katz B, Bruck M, Narins R, Lawrence N, et al. The efficacy of powered liposuction. Dermatol Surg. 2001; 27:735-738.

Lawrence N, Coleman III WP. Liposuction synopsis. J Am Acad Dermatol. 2002;47(1):105-108.

Lawrence N, Cox SE. The efficacy of external ultrasound-assisted liposuction: a randomized controlled trial. Dermatol Surg 2000; 26:329-332.

Lawrence N. Book Review: *Tumescent Technique: Tumescent Anesthesia and Microcannular Liposuction*. Arch Dermatol 2002; 138:416-417.

Lawrence N. Liposuction Council Bulletin. Derm Surg. 2000; 26(10)963-964.

Coleman III WP, Lawrence N, Lillis P, Narins R. The Tumescent Technique (letter) Plast Reconstr Surg 1998;101(6):1751-1752.

Coleman III WP, Lawrence N. Liposuction. Derm Surg 1997; 23(12):1125.

Lawrence N, Coleman III WP. Liposuction. *Adv Dermatol* 1996; 11:19-49 and 403-405.

Lawrence N, Coleman WP. Liposuction. *J Am Acad Dermatol* 2002; 47:105-8

Lawrence N. Liposuction: Issues for the new millennium. In: Salasche, SJ (ed) *Current Problems in Dermatology*. Millennium series Mosby St. Louis, 2001; 13(1):25-30.

Lawrence N, Clark R, Flynn TC, Coleman III WP. American Academy of Dermatologic Surgery: Guidelines of care for liposuction. *Dermatol Surg* 2000;26(3):265-269.

Lawrence N, Coleman III WP, In: N. Lawrence, W Coleman, III (guest editors) Physics of ultrasonic liposuction. Special Issue on Liposuction. *Dermatol Surg* 1997;23(12):1197-1200.

Lawrence N. Current issues in liposuction In: *Advances in Dermatology*. JD William, Cockerell CJ, et al (eds). Mosby Inc 2003 Vol 19 pages 171-184.

Leonhardt J, Lawrence N. Liposuction. In: Mary Maloney (ed) *Advances in Dermatology* Mosby Inc. Vol 19 2003;171-184.

Lawrence N, Butterwick K. Immediate and long term post op care and touch-ups In: *Safe Liposuction*. 2001 Marcel Dekker New York, NY 2003 page 329-342.

Lawrence N, Coleman WP, Ultrasonic assisted liposuction. In: Coleman III WP, Lillis PJ (eds) *Dermatology Clinics*. Saunders, Philadelphia 1999; Vol 17(No 4):761-771.

Lawrence N, Coleman III WP. Liposuction In: Dzubow L (ed) *Advances in Dermatology*. Mosby, St Louis 1996;Vol 11:19-49.

Leonard A, Hanke CW. Liposuction. In: Wolff K, et al. (eds). *Fitzpatrick's Dermatology in General Medicine*. New York: McGraw-Hill, 2008:2378-80.

Klein J. Post-tumescent liposuction care: open drainage and bimodal compression. *Dermatol Clin* 1999;17:881-9.

Klein J. The tumescent technique for liposuction surgery. Available at: www.jeffreykleinliposuction.com/articles/The_Tumescent_Technique_for_Liposuction_Surgery.pdf

Klein JA. Lidocain toxicity with tumescent liposuction. Available at: www.liposuction101.com

Ascher B, Coleman S, Alster T, et al. Full scope of effect of facial lipoatrophy: a framework of disease understanding. *Dermatol Surg* 2006 32: 1058-69.

Coleman WP, Flynn TC. Liposuction. In: Bologna JL, et al. (eds). *Dermatology*. Spain: Mosby Elsevier, 2008:2345-2354.

Lawrence N, Nemeth SA, Leonhardt J. Liposuction. In: Robinson JK, et al. (eds). *Surgery of the Skin: Procedural Dermatology, Second Edition*. New York: Elsevier, 2010:447-68.

Robles DT, Olson JM, Colven RM. Lipodystrophy in HIV. Available at: <http://emedicine.medscape.com/article/1082199>

Medical-legal Issues

Torres A, Wagner RF, Proper S. Informed consent. IN: Roenigk RK, Roenigk HH (eds) *Roenigk & Roenigk's Dermatologic Surgery Principles and Practice, Second Edition* Marcel Dekker New York, NY 1996 page 25-30.

Wagner RF. Informed consent and risk management issues in cutaneous surgery. IN:

Wheeland RG (ed) *Cutaneous Surgery*. WB Saunders, Philadelphia PA 1994 page 26-31.

Jalian HR, Jalian CA, Avram MM. Common causes of injury and legal action in laser surgery. *JAMA Dermatol*. 2013 Feb;149(2):188-93.

Korman JB, Jalian HR, Avram MM. Analysis of botulinum toxin products and litigation in the United States. *Dermatol Surg*. 2013 Mar 6.

Microdermabrasion

Bernard RW, Beran SJ, Rusin L: Microdermabrasion in clinical practice. *Clin Plast Surg* 2000; 27:571577.

Shim EK, Barnette D, Hughes K, Greenway HT: Microdermabrasion: a clinical and histopathologic study. *J Dermatol Surg* 2001; 27:524-530.

Freedman BM, Rueda-Pedraza E, Waddell SP: The epidermal and dermal changes associated with microdermabrasion. *J Dermatol Surg* 2001; 27:1031-1033.discussion 1033-4

Rajan P, Grimes PE: Skin barrier changes induced by aluminum oxide and sodium chloride microdermabrasion. *J Dermatol Surg* 2002; 28:390-393.

Coimbra M, Rohrich RJ, Chao J, Brown SA: A prospective controlled assessment of microdermabrasion for damaged skin and fine rhytides. *Plast Reconstr Surg* 2004; 113:1438-1443.discussion 1444

Karimipour DJ, Kang S, Johnson TM, et al: Microdermabrasion: a molecular analysis following a single treatment. *J Am Acad Dermatol* 2005; 52:215-223.

Alkhawam L, Alam M. Dermabrasion and microdermabrasion. *Facial Plast Surg*. 2009 Dec;25(5):301-10

Kirkland EB, Hantash BM. Microdermabrasion: molecular mechanisms unraveled, part 1. *J Drugs Dermatol*. 2012 Sep;11(9):e2-9.

Kirkland EB, Hantash BM. Microdermabrasion: molecular mechanisms unraveled, part 2. *J Drugs Dermatol*. 2012 Sep;11(9):e10-7

Neuromodulators

Brandt F, Swanson N, et al. Randomized, placebo-controlled study of a new botulinum toxin A for treatment of glabellar lines: efficacy and safety. *Dermatol Surg* 2009;35:1893-1901.

Carruthers A, Carruthers J. Botulinum A exotoxin. Narins RS (ed) *Cosmetic Surgery*. Marcel Dekker, Inc. New York 2001 page 333-354

Pharmacology, technique, patient management
www.fda.gov/bbs/topics/answers/2004/ans01301.html
www.fda.gov/bbs/topics/answers/2002/ans01147.html
www.medicis.com/products/pi/pi-dysport.pdf

Carruthers J, Carruthers A. The evolution of botulinum neurotoxin type A for cosmetic applications. *J Cosmet Laser Ther* 2007;9:186-92.

Huilgol SC, Carruthers A, Carruthers J. Raising eyebrows with botulinum toxin. *Dermatol Surg* 1999; 25:373-76.

Carruthers A, Carruthers J. Botulinum toxin products overview. *Skin Ther Lett* 2008;13:1-4.

Carruthers J, Carruthers A. BotoxR use in the mid and lower face and neck. *Sem Cut Med Surg* 2001; 20:85-92.

Carruthers J, Lowe NJ, Menter MA, et al. A multicenter, double-blind, randomized, placebo-controlled study of the efficacy and safety of botulinum toxin type A in the treatment of glabellar lines. *J Amer Acad Dermatol* 2002;46:840-49.

Donofrio LM, Mariwalla K. New developments in neurotoxins. Available at <http://cme.medscape.com/viewarticle/584865>.

Carruthers A, Carruthers J (eds). *Procedures in Cosmetic Dermatology Series: Botulinum Toxin*. New York: Elsevier Saunders, 2007.

Glogau R, Blitzer A, Brandt F, Kane M, Monheit GD, Waugh JM. Results of a randomized, double-blind, placebo-controlled study to evaluate the efficacy and safety of a botulinum toxin type A topical gel for the treatment of moderate-to-severe lateral canthal lines. *J Drugs Dermatol*. 2012 Jan;11(1):38-45.

Peri-operative Assessment and Management

Balle MR, Krull EA. Medical evaluation and universal precautions. IN: Roenigk RK, Roenigk HH (eds) *Roenigk & Roenigk's Dermatologic Surgery Principles and Practice, Second Edition* Marcel Dekker New York, NY 1996 page 53-64.

Haas AF, Grekin RC. Practical thoughts on antibiotic prophylaxis. Arch Dermatol. 1998;134(7):872-873.

Haas AF, Grekin RC. Antibiotic prophylaxis in dermatologic surgery. J Am Acad Dermatol. 1995 32(pt 2 a):155-176.

Otley C. Continuation of medically necessary aspirin and warfarin during cutaneous surgery. Mayo Clin Proc. 2003 Nov;78(11):1392-6. Review.

Kovich O, Otley C. Thrombotic complications related to discontinuation of warfarin and aspirin therapy perioperatively for cutaneous operation. J Am Acad Dermatol. 2003 Feb;48(2):233-7.

Kovich O, Otley C. Perioperative management of anticoagulants and platelet inhibitors for cutaneous surgery: a survey of current practice. Dermatol Surg. 2002 Jun;28(6):513-7.

Wright TI, Baddour LM, Berbare EF, et al. Antibiotic prophylaxis in dermatologic surgery: Advisory statement 2008. J Am Acad Dermatol. 2008;59(3):464-473

Manstein D, Laubach H, Watanabe K, Farinelli W, Zurakowski D, Anderson RR. Selective cryolysis: a novel method of non-invasive fat removal. Lasers Surg Med. 2008 Nov; 40(9):595-604.

Photodynamic Therapy

Goldman, MP. *Photodynamic Therapy, Second Edition*. Saunders, Elsevier. London. 2008

Photographic Reproduction

Martinez JC. Standardized photography in facial reconstructive surgery: clinical pearls to simplify a complicated task. *Dermatol Surg*. 2011 Jan;37(1):82-5

Goldberg DJ. Digital photography, confidentiality, and teledermatology. *Arch Dermatol Apr* 2004;140:477-478

Scheinfeld N. Photographic images, digital imaging, dermatology, and the law. *Arch Dermatol Apr* 2004;140:473-476

Resurfacing

Coleman III WP, Lawrence N. (eds) *Skin Resurfacing*. Williams and Wilkins, Baltimore, 1998 entire book

Witheiler DD, Lawrence N, Cox SE, et al: Long-term efficacy and safety of Jessner's solution and 35% trichloroacetic acid vs fluorouracil in the treatment of widespread facial actinic keratoses. *Dermatol Surg* 1997;23(3):191-196.

Lawrence, N, Cox SE, Brody HJ. Treatment of melasma with Jessner's solution vs glycolic acid: A comparison of clinical efficacy and evaluation of

the predictive ability of Wood's light examination.
J Am Acad Dermatol 1997;36(4):589-593

Lawrence N, Cox SE, Cockerell CJ, Freeman RG, Cruz PD. A Comparison of the Efficiency of Jessner's Solution and 35% Trichloroacetic Acid vs 5% Fluorouracil in the Treatment of Widespread Facial Actinic Keratoses. Arch Dermatol. 1995;131:176-181.

Lawrence N, Mandy S. History of dermabrasion. Dermatol Surg 2000;26(2):95-101.

Lawrence N. Improving the appearance of pigmentation abnormalities of the face. In: Draelos Z. (guest Editor) *The Clinics Atlas of Office Procedures*. WB Saunders Philadelphia PA. December 2001;4(4) 565-578.

Lawrence N, Coleman III WP. Prepeeling regimens. In: Luftman D (editor) *Glycolic Acid Peels*. Marcel Dekker, Inc. New York NY 2002;53-70.

Lawrence N, Comparing AHA products. In: Luftman D, (editor) *Glycolic Acid Peels*. Marcel Dekker, Inc. New York NY 2002;187-192.

Lawrence N. New and emerging treatments for photoaged skin. In Matarasso A, Matarasso S (eds) *Clinics in Plastic Surgery* Saunders, Philadelphia 2001; Vol 28(No 1):235-248.

Lawrence N. New and Emerging treatments for photoaged skin. In Thiers BH (ed) *Dermatology Clinics: New and Emerging Therapies*. Saunders, Philadelphia 2000; Vol 18(No 1):99-112.

Lawrence N, Brody H, Alt T. Chemical peeling. In: William P. Coleman III WP (ed) *Cosmetic Surgery of the Skin: Principles and Techniques, Second Edition*. Mosby , St Louis, 1997 ; 85-111.

Monheit GD, Chastain MA. Chemical and mechanical skin resurfacing. In: Bologna JL, et al. (eds). *Dermatology*. Spain: Mosby Elsevier, 2008:2313-27.

Leonard AL, William CW. Cosmetic dermatology procedure manual. USA: Physicians Continuing Education Corp, 2007:79-130.

Cox SE, Butterwick KJ. Chemical peels. In: Robinson JK, et al. (eds). *Surgery of the Skin: Procedural Dermatology*. New York: Elsevier, 2005:463-82.

Spencer JM, Harmon CB. Microdermabrasion and dermabrasion. In: Robinson JK, et al. (eds). *Surgery of the Skin: Procedural Dermatology*. New York: Elsevier, 2005:589-98.

Hantash BM, Bedi VP, Kapadia B, Rahman Z, Jiang K, Tanner H, Chan KF, Zachary CB. In vivo histological evaluation of a novel ablative fractional resurfacing device. *Lasers Surg Med*. 2007 Feb;39(2):96-107.

Avram MM, Tope WD, Yu T, Szachowicz E, Nelson JS. Hypertrophic scarring of the neck following ablative fractional carbon dioxide laser resurfacing. *Lasers Surg Med.* 2009 Mar;41(3):185-8.

Scar Revision

Taher M, Bennett R. Revision of upper lip vermilion border elevation. *Dermatol Surg.* 2007;33:225-8.
Pollack SV. Management of keloids. IN: Wheeland RG (ed) *Cutaneous Surgery*. WB Saunders, Philadelphia PA 1994 page 688-698.

Harmon CB, Yarborough JM. Scar revision by dermabrasion. IN: Roenigk RK, Roenigk HH (eds) *Roenigk & Roenigk's Dermatologic Surgery Principles and Practice, Second Edition* Marcel Dekker New York, NY 1996 page 911-922.

Wolfe D, Low W, Davidson TM. Scar revision. IN: Roenigk RK, Roenigk HH (eds) *Roenigk & Roenigk's Dermatologic Surgery Principles and Practice, Second Edition*. Marcel Dekker New York, NY 1996 page 923-946.

Dzubow LM, Z-plasty mechanics. *J Dermatol Surg Oncol.* 194;20(2):108

Harahap M. Repair of split earlobes. A review and new technique. *J Dermatol Surg Oncol.* 1982;8(3):187-191.

Eishi K, Bae SJ, Ogawa F. et al. Silicone gel sheets relieve pain and pruritus with clinical improvement of keloid: possible target of mast cells. *J Dermatolog Treat.* 2003;14(4):248-252.

Gold MH, Foster TD, Adair MA, et al. Prevention of hypertrophic scars and keloids by the prophylactic use of topical silicone gel sheets following a surgical procedure in an office setting. *Dermatol Surg.* 2001;27(7):641-644

Goldman GD and Dzubow LM. Complications and revisions. IN: *Facial Flaps Surgery.* New York: McGraw-Hill, 2013, pgs: 314-339.

Uebelhoer NS, Ross EV, Shumaker PR. Ablative fractional resurfacing for the treatment of traumatic scars and contractures. *Semin Cutan Med Surg.* 2012 Jun;31(2):110-20.

Massaki AB, Fabi SG, Fitzpatrick R. Repigmentation of hypopigmented scars using an erbium-doped 1,550-nm fractionated laser and topical bimatoprost. *Dermatol Surg.* 2012 Jul;38(7 Pt 1):995-1001.

Tierney EP. Treatment of acne scarring using a dual-spot-size ablative fractionated carbon dioxide laser: review of the literature. *Dermatol Surg.* 2011 Jul;37(7):945-61.

Chuang GS, Manstein D, Tannous Z, Avram MM. Ulceration of mature surgical scars following

nonablative fractional photothermolysis associated with intralesional lidocaine injections. *Dermatol Surg*. 2012 Nov;38(11):1879-81.

Tziotzios C, Profyris C, Sterling J. Cutaneous scarring: Pathophysiology, molecular mechanisms, and scar reduction therapeutics Part II. Strategies to reduce scar formation after dermatologic procedures. *J Am Acad Dermatol*. 2012 Jan;66(1):13-2.

Profyris C, Tziotzios C, Do Vale I. Cutaneous scarring: Pathophysiology, molecular mechanisms, and scar reduction therapeutics Part I. The molecular basis of scar formation. *J Am Acad Dermatol*. 2012 Jan;66(1):1-10.

Lin JY, Warger WC, Izikson L, Anderson RR, Tannous Z. A prospective, randomized controlled trial on the efficacy of fractional photothermolysis on scar remodeling. *Lasers Surg Med*. 2011 Apr;43(4):265-72.

Sclerotherapy

Goldman MP, Guex JJ, Weiss RA. *Sclerotherapy : Treatment of Varicose and Telangiectatic Leg Veins*. Edinburgh: Saunders/ Elsevier; 2011.

Weiss RA, Weiss MA , Beasley KL. *Sclerotherapy and Vein Treatment*. New York: McGraw-Hill Medical; 2012.

Bowes LE , Goldman MP. Sclerotherapy of reticular and telangiectatic veins of the face, hands, and chest. *Dermatol Surg* 2002;28:46-51.

Breu FX, Guggenbichler S , Wollmann JC. 2nd European Consensus Meeting on Foam Sclerotherapy 2006, Tegernsee, Germany. *Vasa* 2008;37 Suppl 71:1-29.

Duffy DM. Sclerosants: A comparative review. *Dermatol Surg* 2010;36 Suppl 2:1010-25.
Goldman MP. How to utilize compression after sclerotherapy. *Dermatol Surg* 2002; 28:860-2.

Goldman MP. Treatment of varicose and telangiectatic leg veins: double-blind prospective comparative trial between aethoxyskerol and sotradecol. *Dermatol Surg* 2002; 28:52-5.

Goldman MP, Mauricio M , Rao J. Intravascular 1320-nm laser closure of the great saphenous vein: a 6- to 12-month follow-up study. *Dermatol Surg* 2004;30:1380-5.

Kern P, Ramelet AA, Wutschert R , Hayoz D. Compression after sclerotherapy for telangiectasias and reticular leg veins: a randomized controlled study. *J Vasc Surg* 2007; 45:1212-6.

Rabe E, Schliephake D, Otto J, Breu FX , Pannier F. Sclerotherapy of telangiectases and reticular veins: a double-blind, randomized, comparative clinical trial of polidocanol, sodium tetradecyl sulphate and

isotonic saline (EASI study). *Phlebology* 2010;25:124-31.

Rao J, Wildemore JK , Goldman MP. Double-blind prospective comparative trial between foamed and liquid polidocanol and sodium tetradecyl sulfate in the treatment of varicose and telangiectatic leg veins. *Dermatol Surg* 2005;31:631-5; discussion 5.

Rasmussen LH, Lawaetz M, Bjoern L, Vennits B, Blemings A , Eklof B. Randomized clinical trial comparing endovenous laser ablation, radiofrequency ablation, foam sclerotherapy and surgical stripping for great saphenous varicose veins. *Br J Surg* 2011;98:1079-87.

Rathbun S, Norris A , Stoner J. Efficacy and safety of endovenous foam sclerotherapy: meta-analysis for treatment of venous disorders. *Phlebology* 2012;27:105-17.

Tafazzoli A, Rostan EF , Goldman MP. Q-switched ruby laser treatment for postsclerotherapy hyperpigmentation. *Dermatol Surg* 2000;26:653-6.

Weiss RA, Sadick NS, Goldman MP , Weiss MA. Post-sclerotherapy compression: controlled comparative study of duration of compression and its effects on clinical outcome. *Dermatol Surg* 1999;25:105-8.

Soft Tissue Fillers

Arlette JP, Trotter MJ. Anatomic location of hyaluronic acid filler material injected into nasolabial fold: a histologic study. *Dermatol Surg* 2008;34:s56-62.

Marmur ES, Quran HA, et al. A five-patient satisfaction pilot study of calcium hydroxylapatite injection for treatment of aging hands. *Dermatol Surg* 2009;35:1978-84.

Sclafani AP, Fagien S. Treatment of injectable soft tissue filler complications. *Dermatol Surg* 2009;35:1672-80.

Sadashivaiah AB, Mysore V. Biofilms: Their Role in dermal fillers. *J Cutan Aesthet Surg* 2010;3(1):20-22

Klein AW. Filling substances: Collagen IN: Narins RS (ed) *Cosmetic Surgery*. Marcel Dekker, Inc. New York 2001 page 193-220.

Donofrio LM. Structural lipoaugmentation IN: Narins RS (ed) *Cosmetic Surgery*. Marcel Dekker, Inc. New York 2001 page 221-240.

Pinski KS. Fat transplantation and autologous collagen IN: Narins RS (ed) *Cosmetic Surgery*. Marcel Dekker, Inc. New York 2001 page 241-266.

West TB. Human-derived filling materials for soft-tissue augmentation IN: Narins RS (ed) *Cosmetic*

Surgery. Marcel Dekker, Inc. New York 2001 page 267-288

Lawrence N. Gortex IN: Narins RS (ed) *Cosmetic Surgery* Marcel Dekker, Inc. New York 2001 page 289-312

Klein AW. New filling substances on the horizon. IN: Narins RS (ed) *Cosmetic Surgery*. Marcel Dekker, Inc. New York 2001 page 313-332

Sadick NS, Karcher C, Palmisano L. Cosmetic dermatology of the aging face. *Clin in Dermatol* 2009;27:S3-12.

Hamilton TK. Skin augmentation and correction: the new generation of dermal fillers – a dermatologist's experience. *Clin in Dermatol* 2009;27:S13-22.

Sherman, RN. Avoiding dermal filler complications. *Clin in Dermatol* 2009;27:S23-32.

Matarasso SL, Sadick NS. Soft tissue augmentation. In: Bologna JL, et al. (eds). *Dermatology*. Spain: Mosby Elsevier, 2008:2369-79

Donofrio L. Fat distribution: a morphologic study of the aging face. *Dermatol Surg* 2003;26:1107-12.

Donofrio LM. Structural autologous lipoaugmentation: a pan-facial technique. *Dermatol Surg* 2003;26: 1129-34.

Sengelmann RD, Tull S, Pollack SV. Soft-tissue augmentation. In: Robinson JK, et al. (eds). *Surgery of the Skin: Procedural Dermatology*. New York: Elsevier, 2005:437-62.

Carruthers J, Carruthers A. *Procedures in Cosmetic Dermatology Series: Soft Tissue Augmentation*. New York: Elsevier Saunders, 2007.

Sapijaszko MJA. Dermal fillers: ever-expanding options for esthetic use. *Skin Ther Lett* 2007;12:4-7.

Lupo MP. Hyaluronic acid fillers in facial rejuvenation. *Semin Cutan Med Surg* 2006;2:122-6.

Glogau RG. Fillers: from the past to the future. *Semin Cutan Med Surg*. 2012 Jun;31(2):78-87.

Moers-Carpi M, Vogt S, Santos BM, Planas J, Vallve SR, Howell DJ. A multicenter, randomized trial comparing calcium hydroxylapatite to two hyaluronic acids for treatment of nasolabial folds. *Dermatol Surg*. 2007 Dec;33 Suppl 2:S144-51

Cohen JL, Dayan SH, Brandt FS, Nelson DB, Axford-Gatley RA, Theisen MJ, Narins RS. Systematic review of clinical trials of small- and large-gel-particle hyaluronic acid injectable fillers for aesthetic soft tissue augmentation. *Dermatol Surg*. 2013 Feb;39(2):205-31.

Guidelines for Use of the ASDS Accreditation Logo

Accredited Cosmetic Dermatologic Surgery Fellowship Programs are encouraged to use the ASDS Accreditation Logo in communications and promotional materials relating to their fellowship. To maintain the integrity of the Accreditation logo, please adhere to the following guidelines.

Definition of an accredited cosmetic dermatologic surgery fellowship program

The ASDS Accreditation logo and “Accredited by ASDS” term are only to be used to designate accreditation of the Fellowship Program by the American Society for Dermatologic Surgery. They cannot be used until final approval has been granted. Programs receiving provisional accreditation or who may be put on probation for any reason may not, at the same time, utilize either the ASDS Accreditation Logo or the term “Accredited by ASDS.”

Intentions of use

All qualified users of the ASDS Accreditation logo must take steps to ensure that it is not placed on any item or communication (printed or electronic) in such a manner as to give the appearance that the logo is owned or controlled by any entity other than the American Society for Dermatologic Surgery.

Graphic integrity of accreditation logo

The impact and effectiveness of the Accreditation logo is dependent on its consistent and correct use. When using or reproducing the logo, the elements of the logo must appear together in a fixed relationship.

General use by accredited programs

The following is a list of scenarios and items in which the Accreditation logo can be used to designate an accredited program:

- Advertising
- Business cards
- Signage
- Plaques
- Patient education materials
- Practice forms
- Practice stationery website

Use of the accreditation logo in advertisements

In addition to the “general uses” described earlier, the logo may be used by accredited programs in advertisements.

- The logo must not dominate the advertisement in which it is used or create the impression that it is sponsored or paid for by ASDS or CDSFAP.
- Neither ASDS nor CDSFAP is responsible, nor liable, for the content of the advertisement.

It is the responsibility of the Fellowship Director to ensure the use of the logo is compliant with the standards of the CDSFAP.

FAQs

***I need help completing my application.
Who should I contact?***

Contact ASDS Education Programs Manager Hana Herron on behalf of the Accreditation Work Group. She can be reached at 847-956-9139 or at hherron@asds.net.

We have an ACGME-accredited Procedural Dermatology Fellowship Program. Can I apply for dual accreditation?

Yes, as long as you can support your Fellow(s) with an adequate case load and appropriate number of faculty.

I am an ASDS member. Our program trains two Fellows each year. What forms do I need to complete and what will the total cost be?

With two Fellows, you are required to have at least three faculty, including the Fellowship Director. Your costs will be:

\$2,750 – Initial Accreditation Fee, including the cost for additional faculty as long as the applications are submitted at the same time. It also includes initial site review for one teaching location. For additional teaching locations in the same geographical area, additional site review fees would apply. Once your program has achieved

accreditation, you will be required to pay an annual maintenance of accreditation fee.

You will need to complete the following forms:

- ✓ Fellowship Program/Director Application Form
- ✓ Surgical Faculty Application Form(s)
- ✓ Two letters of support from ASDS members not affiliated with the program
- ✓ Provide proposed Fellow Weekly Schedule
- ✓ Fellowship Director Acknowledgement/Hold Harmless Form

For each faculty member, including the Fellowship Director, please submit a current CV and case log, and provide malpractice insurance verification.

Must all faculty members be board-certified dermatologists?

No. Your faculty can include other board-certified physicians who meet the criteria. However, at least 75 percent of the minimum case requirement must come from board-certified dermatologists.

