Plastic Surgery and Cosmetic Procedures

This edition of FP Essentials will update family physicians about plastic surgery and cover four sections: injection procedures, facial plastic surgery, liposuction and body contour procedures, and implants.

This edition of FP Essentials should be approximately 10,000 words in length, divided into four sections of approximately 2,500 words each (each with an abstract of 200 words or less) plus key practice recommendations, a maximum of 15 tables and figures, recommended reading, and approximately 100 references. This edition should focus on what is new in each topic and should answer the key questions listed for each section. Each section should begin with an illustrative case, similar to the examples provided, with modifications to emphasize key points; each case should have a conclusion that demonstrates resolution of the clinical situation. The references here include information that should be considered in preparation of this FP Essentials. However, these references are only a useful starting point that should be used to identify additional information to review.

Needs Assessment: According to the American Society for Aesthetic Plastic Surgery, cosmetic procedures are on the rise, and Americans are spending more than $15 billion/year on them. In 2017 surgical cosmetic procedures were up 11% over the previous year, and nonsurgical procedures, which increased 4.2%, accounted for 23% of all expenditures for cosmetic procedures. OnabotulinumtoxinA, dermal fillers, breast augmentation, liposuction, body contour procedures, and eyelid surgery are among the most commonly performed cosmetic procedures in the United States. Use of injection procedures alone increased 40.6% from 2012-2017.\(^1\)

In concert with this demand, plastic surgery technology has expanded rapidly in recent years, particularly in the myriad of minimally invasive devices and procedures that now are available. Family physicians are incorporating nonsurgical aesthetic procedures into their practices in increasing numbers. Referring family physicians must be sufficiently knowledgeable about these procedures to answer patients’ questions correctly, to help guide patient expectations, and to refer patients appropriately. Especially in the area of augmentation using implants, family physicians must be skilled in the recognition and management of infectious and other postsurgical complications, and they must know how implantation affects breast cancer screening recommendations.

Section 1: Injection Procedures

Example case: At a routine follow-up visit for hypothyroidism, Sarah, a 51-year-old woman expresses concerns that the appearance of crow’s feet lines on her face make her look and feel old. Facial moisturizers have not helped. She asks whether injections of Botox or fillers would benefit her. She also wants your recommendation where to seek such treatment should she choose to do so. However, she says she does not want to look like “one of those Hollywood actresses who’s had too much surgery.”

Key questions to consider:

- What are the common age-related skin changes for which patients seek injection procedures? Are there characteristics of those changes that make them more or less amenable to injection procedures?
- How many aesthetic injection procedures are performed annually in the United States? What are the most common injection procedures offered by physicians in office practice? Who is doing them (eg, subspecialties, primary care, midlevel clinicians) and why?
- How do these procedures differ from more traditional cosmetic surgical techniques for aging?
- For both onabotulinumtoxinA and dermal filler injections discuss the following:
  - What are they? How do they work?
  - What products are available? How do they differ from each other?
  - What are the aesthetic and nonaesthetic indications?
  - What are the contraindications?
  - What are the proper techniques used for these procedures?
  - What are the potential complications? How often do they occur?
  - How often must (should) these procedures be repeated? What can patients expect or not expect to achieve with these procedures?
  - What is the range of costs to patients for these procedures? Which procedures may be covered by insurance and which typically are not?
- How much financial benefit can physician practices expect from offering these services? What overhead is involved, and what protocols must be established to incorporate these procedures into one’s practice safely and successfully?
- What are the potential disadvantages of including aesthetic procedures into one’s practice? What ethical issues should be considered?
- How can patients and referring physicians identify practitioners who are skilled in these procedures? Where can interested family physicians obtain more information and training?
- What credentialing is necessary for family physicians to perform these procedures? What training, credentialing, levels of supervision, and documentation of supervision are needed when staff members are performing or assisting with them?

Initial references to consider:


Section 2: Facial Plastic Surgery

Example case: Lisa, a 27-year-old survivor of a motorcycle accident that occurred 2 years ago is dissatisfied with the facial injury healing. She is particularly concerned about misalignment of her nose because of a fracture and a prominent scar involving the upper lip and cheek. Both have made her self-conscious, and she fears questions about her scar in social and employment settings. She asks about options for plastic surgical treatment in your community, costs, and how much benefit she can reasonably expect.

Key questions to consider:

- What does plastic surgery mean?
- What are the most common facial plastic surgical procedures performed in the United States? How many procedures are aesthetic, medical, and reconstructive? How many facial plastic surgical procedures are performed by plastic surgery subspecialist versus other surgical subspecialists (eg, otolaryngologist subspecialists, ophthalmologist subspecialists)?
- How can physicians identify patients who may or may not be suitable candidates for facial plastic surgery?
- How can physicians recognize patients who have unrealistic expectations or an unhealthy interest in cosmetic procedures? When is a psychiatric evaluation recommended?
- For each of the common facial plastic surgical procedures (eg, neck lifts, rhinoplasty, blepharoplasty, otoplasty, facial scar revision, laser skin resurfacing), discuss the following:
  o What are the aesthetic, medical, and reconstructive indications?
  o What are the contraindications?
  o What are the most common techniques for each procedure? How long do they take?
  o What are the potential complications? How often do they occur? What patient factors (eg, smoking, obesity) may increase the risk of complications?
  o How long does recovery take? What can patients expect or not expect to achieve with these procedures?
  o What are the alternatives?
- What preoperative assessment is recommended for facial plastic surgery? What are the recommendations regarding anticoagulation before and after surgery?
- What qualifications and expertise should patients and referring physicians look for in a surgery subspecialist when considering a facial procedure?
- What training is available and what credentialing is necessary for family physicians to perform these procedures? What training, credentialing, levels of supervision, and documentation of supervision are needed when staff members are performing or assisting with them?

Initial references to consider:

Section 3: Liposuction and Body Contour Procedures

Example case: Charlie, a 43-year-old patient of yours has been working hard to get rid of his “dad bod.” After a decade of prioritizing work and family over personal health, he recommitted to proper nutrition and regular exercise and has lost most of his excess weight over the past 8 months. Now, despite a respectable body mass index, he feels bothered by residual chest and lower abdominal fat. He has seen advertisements for noninvasive fat freezing procedures and asks you whether you recommend that for him.

Key questions to consider:

• What are liposuction and body contour procedures? How many of these procedures are performed each year in the United States? For which parts of the body are they best suited?
• For both liposuction and body contour procedures discuss the following:
  o What are the aesthetic and medical indications?
  o What are the contraindications?
  o What are the various invasive and noninvasive techniques (eg, tumescent and ultrasound-assisted liposuction, radiofrequency and cryolipolysis) used? What do they each involve?
  o How long do these procedures take? How often are they repeated, and how many treatments are required for desired results? How effective are these procedures?
  o What are the potential complications? How often do they occur?
  o How long does recovery take? What outcomes can patients expect with these procedures?
  o How much do these procedures cost, and are they typically covered by insurance?
  o What are the alternatives?
• How can physicians identify patients who may or may not be suitable candidates for liposuction and body contour procedures? Do age or weight restrictions apply? What is the relationship between nutritional status and body contour procedure outcomes? Should patients have a stable weight (and for how long) before recommending a procedure?
• How important is skin elasticity when considering these procedures? How is this assessed?
• What postsurgical lifestyle changes are recommended to maintain results? What may happen if patients regain weight? How might surgery affect future fat distribution?
• What other plastic surgical procedures (eg, abdominoplasty, mammaplasty) may be recommended in conjunction with liposuction or body contour procedures?
• What qualifications should patients and referring physicians look for in a surgery subspecialist when considering liposuction and body contour procedures? How much experience should the surgery subspecialist have?
• What training is available and what credentialing is necessary for family physicians to perform these procedures? What training, credentialing, levels of supervision, and documentation of supervision are needed when staff members are performing or assisting with them?

Initial references to consider:


Section 4: Implants

Example case: Heather, a 34-year-old woman, comes to your office because of concerns that her breasts have lost volume and shape after three children. Her bathing suits and summer clothes do not fit as well as they did. She thinks breast implants will help her self-confidence, but she is worried what others will think. She also wants to know your opinion about recent reports of breast implants causing cancer.

Key questions to consider:

• How many surgical augmentation procedures using implants are performed each year in the United States? How many are aesthetic versus reconstructive?
• What are the common reasons women seek breast and buttock augmentation with implants?
• What materials are used for implants (eg, saline, gel silicone, solid silicone)? What are the relative advantages and disadvantages of each? What size implants are available? How is the proper implant size chosen?
• Discuss the following as they relate to breast and buttock augmentation:
  o What are the aesthetic and reconstructive indications?
  o What are the age restrictions and contraindications? What are the recommendations regarding anticoagulation before and after surgery?
  o What are the most common techniques for each procedure? How long do they take?
  o What are the short-term potential complications? How often do they occur?
  o How long does recovery take? What can patients expect or not expect to achieve with these procedures? How much scarring results from surgical augmentation using implants?
  o How much do these procedures cost and when are they covered by insurance?
  o How long do the implants last? Will patients require additional operations?
  o What are the alternatives?
• What are the relative advantages and disadvantages of surgical augmentation using implants compared with surgical lifts that involve fat transfer? What is a Brazilian buttock lift?
• What long-term risks are associated with ruptures and leaks of gel silicone implants? What is the risk of lymphoma? When should such complications be suspected, and how should they be evaluated?
• What is the risk of infection with surgical implants? When do infections most commonly occur? Under what circumstances must implants be removed?
• What is the risk of anaplastic large cell lymphoma after breast and gluteal implants?
• What are the recommendations for breast cancer screening in women who have implants?
• What qualifications and expertise should patients and referring physicians look for when considering implant procedures? What are some good resources for patients seeking additional information about these procedures?

Initial references to consider:


• Faguy K. Adverse effects and imaging appearances of breast implants. *Radiol Technol*. 2018;89(5):467M-482M.


