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Edwin F. Williams III

**Fat Transfer in Conjunction with Facial Rejuvenation Procedures** **383**

Robert J. DeFatta and Edwin F. Williams III

Age is the most significant factor contributing to the overall change in the appearance of an individual's facial features over time. The purpose of any cosmetic procedure is to reverse the aging process that has occurred in an individual. During the last 5 years, volume restoration through lipotransfer combined with lifting procedures has been instrumental in elevating these procedures to a new level of excellence in comprehensive facial rejuvenation. The authors believe that restoration of facial volume can be achieved safely, precisely and reliably by lipotransfer. In this article they describe their techniques of lipotransfer.

**Limitations, Complications, and Long-Term Sequelae of Fat Transfer** **391**

Samuel M. Lam, Robert A. Glasgold, and Mark J. Glasgold

Facial fat transfer has become one of the most potent methods for facial rejuvenation. The two notable problems that have limited its widespread acceptance are the perceived absorption and dissipation of the transplanted fat and the risk of difficult complications such as lumps and bulges along the periorbital expanse. This article discusses these concerns and the long-term sequelae, particularly derivative benefits beyond volume contour changes such as textural improvements in the skin, ongoing improvements in the appearance of the grafted fat after months to years, and other structural changes.

**Specific Techniques for Fat Transfer** **401**

Suzan Obagi

At no time in the past has the field of cosmetic reconstruction paid as much attention to the contribution of volume loss to facial aging. Volume replacement can be achieved with synthetic fillers, implants, and patients' own adipose tissue. However, the results of autologous fat transfer procedures yield variable results among patients and surgeons. After many years of experience with hundreds of procedures, certain observations have become apparent that may explain some of this variability. This article discusses these observations.

**Fat Grafting in Trauma and Reconstructive Surgery** **409**

Yadranko Ducic

The midface of youth is a full, vertically well-supported structure. Aging brings deflation of the midface associated with vertical descent. Reversal of this volume loss with fat grafting or other fillers has become a major recognized goal of aesthetic

surgeons today. Fat grafting in reconstructive surgery is not a new concept. Excellent results may be achieved in most reconstructive and cosmetic surgery cases with well-executed lipotransfer. Attention to detail is important for rewarding results. Graft resorption can occur even in well-executed cases and patients should be appropriately cautioned.

### **Periocular Autologous Fat Transfer**

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David E.E. Holck and Manuel A. Lopez

Autologous fat transfer is a useful adjunct to augment facial soft tissue deflation in the periocular region. With meticulous technique, small aliquot placement, and reinjection at appropriate intervals, fat makes an excellent adjunct to the management of the aging face, and compliments other facial rejuvenation techniques. Appropriate counseling, realistic expectations, and meticulous technique make fat transfer an effective method of soft tissue augmentation.

### **Bio-Alcamid: An Alternative to Fat Transfer**

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David Ellis and Maya G. Sardesai

The recent evolution of the philosophy of rejuvenation therapy toward addressing soft tissue loss with aging has prompted growing interest in fat transfer procedures as a means of volume replacement. However, fat transfer has several undesirable characteristics, including the need for a donor site and lack of predictability of fat uptake and volume retention. Injectable fillers are gaining popularity as an alternative to fat transfer because of their lack of donor site morbidity, instant effects, predictability, and vastly reduced recovery period. Because temporary fillers require inconvenient repeat visits, patients have been requesting permanent options. This article describes the author's experience with a permanent adjustable large-volume filler based on polyalkylimide (Bio-Alcamid) and suggests that it could be a preferred and reliable alternative to fat transfer in appropriate patients. Permanent is defined as no decrease in volume of the product over time. However, because the area augmented may eventually decrease from further aging and fat atrophy, more product may need to be reinjected years later.

### **Volume Restoration and Facial Aesthetics**

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Mark J. Glasgold, Robert A. Glasgold, and Samuel M. Lam

This article discusses the rationale for the use of volume restoration to restore natural, youthful contours to an aging face. Topics discussed include the discrepancy that can exist between patients' stated wishes and optimal results and the concepts of framing the eye, creating highlights, and restoring facial shape and volume.

### **The Scientific Basis for Lipotransfer: Is It the Ideal Filler?**

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Kris R. Jatana and Stephen P. Smith Jr.

A loss of volume results from a reduction in the subcutaneous fat, muscle atrophy, and changes in skeletal framework. Such loss of tissue volume compounded with tissue laxity leads to the aged appearance of the periorbital, perioral, cheek, and

mandibular areas. Many facial plastic surgeons have sought to replace this volume with various injectable agents, both synthetic and autologous, in search for the ideal soft tissue filler. This article reviews the literature on lipotransfer and specifically the scientific basis underlying the approach.

**Appendix - Dermatologic and Maxillofacial Perspectives on Facial Fillers** **449**

Presented in the following pages are views from recent and past articles by dermatology practitioners and maxillofacial surgeons on fat transplantation and grafting and volume restoration.

**Fat Transplantation** **451**

William P. Coleman III

This article from 2006 presents a plastic surgeon's review of fat grafting for altering facial volume and contours and the techniques and instrumentation to obtain predictable results in the restoration or adjustment of facial volume.

**Fat Grafting** **459**

James E. Fulton and Noushin Parastouk

This article from 2001 reviews the state of the art of fat grafting from a historical approach by two dermatologists. At that time, autologous tissue augmentation was controversial and the authors describe initial efforts at improving retention of fat grafting.

**Facial Implants: Facial Augmentation and Volume Restoration** **467**

Bruce B. Chisholm

This article from 2005 describes indications for the use of implants in the treatment of the two most common implants in the treatment of a deficient or atrophic face - midface and chin implants - from the perspective of an oral maxillofacial surgeon.

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