

University of Groningen

Reply

van Dongen, Joris A.; Langeveld, Mirte; van de Lande, Lara S.; Harmsen, Martin C.; Stevens, Hieronymus P.; van der Lei, Berend

Published in:
Plastic and Reconstructive Surgery

DOI:
[10.1097/PRS.00000000000006942](https://doi.org/10.1097/PRS.00000000000006942)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2020

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

van Dongen, J. A., Langeveld, M., van de Lande, L. S., Harmsen, M. C., Stevens, H. P., & van der Lei, B. (2020). Reply: The Effects of Facial Lipografting on Skin Quality: A Systematic Review. *Plastic and Reconstructive Surgery*, 146(1), 93E-94E. <https://doi.org/10.1097/PRS.00000000000006942>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

REFERENCES

1. van Dongen JA, Langeveld M, van de Lande LS, Harmsen MC, Stevens HP, van der Lei B. The effects of facial lipografting on skin quality: A systematic review. *Plast Reconstr Surg*. 2019;144:784e–797e.
2. Charles-de-Sá L, Gontijo-de-Amorim NF, Maeda Takiya C, et al. Antiaging treatment of the facial skin by fat graft and adipose-derived stem cells. *Plast Reconstr Surg*. 2015;135:999–1009.
3. Liang ZJ, Lu X, Li DQ, et al. Precise intradermal injection of nanofat-derived stromal cells combined with platelet-rich fibrin improves the efficacy of facial skin rejuvenation. *Cell Physiol Biochem*. 2018;47:316–329.
4. Dumville JC, McFarlane E, Edwards P, Lipp A, Holmes A, Liu Z. Preoperative skin antiseptics for preventing surgical wound infections after clean surgery. *Cochrane Database Syst Rev*. 2015;4:CD003949.
5. Chatrath V, Banerjee PS, Goodman GJ, Rahman E. Soft-tissue filler-associated blindness: A systematic review of case reports and case series. *Plast Reconstr Surg Glob Open* 2019;7:e2173.

Reply: The Effects of Facial Lipografting on Skin Quality: A Systematic Review

Sir:

We would like to thank Valente and Zanella for their letter in response to our systematic review.¹ The first remark by Valente and Zanella contradicts our main conclusion: facial lipofilling or any component of adipose tissue (e.g., stromal vascular fraction or adipose-derived stromal cells) does not detectably, measurably rejuvenate aged skin.¹ However, scientific evidence of well-executed randomized clinical trials with validated measurement tools is lacking, and the only published well-designed randomized clinical trial shows no effect of facial lipofilling on skin elasticity. Our hypothesis is that ordinary aging of the skin is a normal physiologic process in which certain components of the extracellular matrix (e.g., elastin) gradually disappear because of wear and tear and ultraviolet exposure causing deformations. In other aspects, such as epidermal regeneration, perfusion, and neurosensation, no remarkable changes occur because of aging. Thus, adipose-derived stromal cells in adipose tissue have little to repair. Moreover, de novo generation of dermal elastin is often considered absent or inefficient; however, this would not lead to tightening of the expanded aged tissue. In this way, aging-related skin changes are not considered damaged tissue and do not result in clinically identifiable changes of the skin as a result of facial lipofilling. In comparison, pathologic processes (e.g., dermal fibrosis or chronic wounds) go along with an imbalance of extracellular factors, resulting in inflammation, excessive extracellular matrix deposition and crosslinking, or a lack of angiogenesis. Lipografting reeducates the damaged tissue by the stromal vascular fraction of adipose tissue. Although no significant improvements have been described as a result of lipofilling applied to the “ordinary” aging skin, significant improvement of the skin

quality has been described in cases where skin changes occurred because of an imbalance of extracellular factors.^{2,3} Thus, a clear distinction should be made in future studies using lipofilling for skin rejuvenation purposes of “ordinary” aged skin or pathologic processes of the skin (e.g., scars, fibrotic diseases, or wound healing). Thus far, the only proven effective application for lipofilling is the restoration of volume loss.⁴ Moreover, the volumizing effect of lipofilling results in reduction of dermal wrinkles as well by increasing subcutaneous volume.

As a second point, Valente and Zanella suggested that we overstate our results with regard to the safety of facial lipofilling in the Conclusions section of our systematic review. A systematic review that is conducted according to validated guidelines can provide collated information of the specific question one might want answered. As a result of following these validated guidelines, self-bias and our own opinion are reduced to a minimum. The question that was asked by the authors, whether facial lipofilling is a safe procedure, can consequently not be answered by a single study of a single center that in their case demonstrated an infection rate of 4.8 percent and an overall complication rate of 13.6 percent.⁵ Moreover, all other studies included in our systematic review did not mention any complication. This might be because of selectively not reporting nonsignificant minor complications. Nevertheless, the safety of facial lipofilling is an interesting and clinically relevant issue.

DOI: [10.1097/PRS.0000000000006942](https://doi.org/10.1097/PRS.0000000000006942)

Joris A. van Dongen, M.D.

Department of Pathology and Medical Biology and
Department of Plastic Surgery
University of Groningen and University Medical Center
Groningen
Groningen, The Netherlands
Department of Plastic Surgery
University Medical Center Utrecht
Utrecht, The Netherlands

Mirte Langeveld, B.Sc.

Medical Faculty
Erasmus University Medical Center
Rotterdam, The Netherlands

Lara S. van de Lande, M.D.

Craniofacial Unit
Great Ormond Street Hospital for Children and
UCL Great Ormond Street Institute of Child Health
London, United Kingdom

Martin C. Harmsen, Ph.D.

Department of Pathology and Medical Biology
University of Groningen and University Medical Center
Groningen
Groningen, The Netherlands

Hieronimus P. Stevens, M.D., Ph.D.

Velthuis Clinic
Rotterdam, The Netherlands

Berend van der Lei, M.D., Ph.D.

Department of Plastic Surgery

University of Groningen and University Medical Center
Groningen
Groningen, The Netherlands
Bey Bergman Clinics
Heerenveen, Hilversum, and Zwolle, The Netherlands

Correspondence to Dr. van der Lei
University Medical Center of Groningen
Hanzeplein 1
9713 GZ Groningen, The Netherlands
info@berendvanderlei.nl

DISCLOSURE

The authors have no financial interest to declare in relation to the content of this communication.

REFERENCES

1. van Dongen JA, Langeveld M, van de Lande LS, Harmsen MC, Stevens HP, van der Lei B. The effects of facial lipografting on skin quality: A systematic review. *Plast Reconstr Surg.* 2019;144:784e–797e.
2. Negenborn VL, Groen JW, Smit JM, Niessen FB, Mullender MG. The use of autologous fat grafting for treatment of scar tissue and scar-related conditions: A systematic review. *Plast Reconstr Surg.* 2016;137:31e–43e.
3. van Dongen JA, Harmsen MC, van der Lei B, Stevens HP. Augmentation of dermal wound healing by adipose tissue-derived stromal cells (ASC). *Bioengineering (Basel)* 2018;5:E91.
4. Groen JW, Negenborn VL, Twisk JW, Ket JC, Mullender MG, Smit JM. Autologous fat grafting in cosmetic breast augmentation: A systematic review on radiological safety, complications, volume retention, and patient/surgeon satisfaction. *Aesthet Surg J.* 2016;36:993–1007.
5. Liang ZJ, Lu X, Li DQ, et al. Precise intradermal injection of nanofat-derived stromal cells combined with platelet-rich fibrin improves the efficacy of facial skin rejuvenation. *Cell Physiol Biochem.* 2018;47:316–329.

Removal of Nasal Silicone Implant and the Impact of Subsequent Capsulectomy

Sir:

In the article by Kook et al.,¹ a concomitant periimplant capsulectomy is verified to be required in post-rhinoplasty silicone implant extraction. Preremoval/postremoval nasal bridge length index and nasolabial angle were measured as clinical endpoints for evaluating the effect of subsequent capsulectomy in preventing and correcting the deformity. However, some problems related to reliability and credibility still need to be clarified in this study.

First, this study is a retrospective analysis of a small sample in a single center. A previous study indicated that denatured changes are related not only to silicone itself but also to each person's immunity and general health condition and thus his or her propensity for foreign body reaction and inflammatory changes.² Therefore, some common factors such as age, sex, and various reasons for revision surgery should be included in the multifactor analysis. In addition, baseline conditions of the

three groups were not comparable, too much bias was not taken into consideration, and some mixed factors that should be balanced out before analysis potentially influence the credibility of conclusions. For instance, group 3, which preoperatively had a more severe nasal contraction than the other two groups, achieved the greatest improvement after a series of operations, including capsulectomy, silicone implant, and tip graft removal, but attributing these different initial levels of improvement to capsulectomy was clearly invalid.

Furthermore, the explicit definition for remarkable contracted nasal appearance was not given, which meant that the criteria for choosing capsulectomy were subjective. It was also not reasonable or reliable to set those criteria as capsulectomy indications.

DOI: [10.1097/PRS.00000000000006946](https://doi.org/10.1097/PRS.00000000000006946)

Wenwen Pu, M.D.

Yan Han, M.D.

Department of Plastic and Reconstructive Surgery
First Medical Center
Chinese People's Liberation Army General Hospital
Beijing, People's Republic of China

Correspondence to Dr. Han
Department of Plastic and Reconstructive Surgery
First Medical Center
Chinese People's Liberation Army General Hospital
No. 28 Fuxing Road
Haidian District
Beijing, People's Republic of China
13720086335@163.com

DISCLOSURE

The authors have no financial disclosure to report in relation to the content of this communication.

REFERENCES

1. Kook WS, Yang CE, Lew DH. Removal of nasal silicone implant and the impact of subsequent capsulectomy. *Plast Reconstr Surg.* 2019;144:575e–585e.
2. Jung DH, Kim BR, Choi JY, Rho YS, Park HJ, Han WW. Gross and pathologic analysis of long-term silicone implants inserted into the human body for augmentation rhinoplasty: 221 revision cases. *Plast Reconstr Surg.* 2007;120:1997–2003.

Reply: Removal of Nasal Silicone Implant and the Impact of Subsequent Capsulectomy

Sir:

We appreciate the interest in our article¹ shown by Drs. Pu and Han and thank them for raising some good questions. All operations were performed at a single center, but the photographic and statistical analyses were performed in cooperation with the Department of Plastic and Reconstructive Surgery and the Department of Biomedical Statistics at Yonsei University College of Medicine (Seoul, Republic of Korea). Statistical analysis was performed by analysis of variance and