



## An introduction to “New Frontiers in Breast Reconstruction”

Over the recent years, patient-centric care has revolutionized the way medicine is delivered, with an increased focus on personalized therapeutic regimens that optimize effectiveness, safety, satisfaction, and quality of life at the individual level. In plastic surgery, perhaps no field better embodies the tenets of personalized medicine than breast reconstruction, which represents a major cornerstone of modern breast cancer care. With the myriad of options available to restore breast form and function, patients and surgeons engage in a shared decision-making process to select tailored approaches to achieving the desired goals, which are accomplished within the context of multidisciplinary treatment considerations necessary for effective cancer care.

This *Gland Surgery* series of articles centered on the theme of “New Frontiers in Breast Reconstruction” presents the latest trends in the field, all of which collectively reflect the transition towards patient-centric care. Recent developments have focused not only on increasing patient choice and improving safety, but also on addressing quality of life issues after breast cancer treatment. The goal of this series was to assemble the most exciting topics in breast reconstruction today, viewed through the lens of patient-oriented medicine.

Beginning with the breast conservation treatment paradigm, increasing adoption of oncoplastic partial breast reconstruction using both volume displacement and volume replacement techniques, as outlined by Chu and colleagues, offers the benefits of breast conservation to women who otherwise would not be candidates, all the while preserving oncologic safety.

While implant-based reconstruction remains the most common approach to whole-breast reconstruction, a major pendulum swing has occurred over the last five years towards pre-pectoral prosthetic placement, in an effort to reduce pain, discomfort, and animation deformities associated with submuscular reconstruction. The work by Sbitany’s group focuses on the implications of radiation for prepectoral implant reconstruction in terms of safety and outcomes. Of late, breast implant safety has risen to the forefront of attention of the medical field and lay public. Two articles in this series delve into this issue. Clemens and colleagues discuss the complex topic of patient counseling for breast-implant-associated anaplastic large cell lymphoma, while Kaplan and Rohrich review the constellation of symptoms attributed to breast implant illness and evidence-based approaches to management.

In autologous tissue reconstruction, a number of alternative options beyond the gold standard abdominal-based flaps enhance the patient choice repertoire, as reviewed by Allen Jr. and colleagues. Schaverien and Chang present a highly innovative approach to breast reconstruction and breast cancer-related lymphedema treatment by combining abdominally-based free flap breast reconstruction with vascularized groin lymph node transfer. Finally, Selber discusses harnessing the powerful benefits of minimally-invasive robotic-assisted surgery for autologous flap harvest.

The elective nature of breast reconstruction surgery renders safety a vital issue, especially for patient at high risk for surgical site or medical complications. Roubaud and co-authors review the safety of breast reconstruction in this challenging population. Hanson’s work examines the prominent role fat grafting has assumed in breast reconstruction, along with the associated implications for long-term surveillance after breast cancer development.

Spiegel and colleagues’ discussion of nerve reconstruction during breast reconstruction importantly addresses the loss of sensation that profoundly affects body image and sexuality in breast cancer survivors. As the value of contralateral prophylactic mastectomy in average breast cancer risk patients becomes increasingly scrutinized, Momoh and colleagues consider the implications of risk-reducing mastectomy for breast reconstruction. Finally, Offodile and co-authors make a thought-provoking contribution defining the financial toll that the breast reconstruction process may take on cancer survivors.

As the articles in this series collectively demonstrate, the field of breast reconstruction has come quite a long way since 1895, when Professor Vincent Czerney of Heidelberg, Germany, attempted to transplant a flank lipoma as the first documented case of breast reconstruction (1). The contemporary era of breast reconstruction has progressed far beyond the rudimentary goal of creating a chest wall mound merely to normalize a woman’s clothed appearance. Instead, our standards and definitions for success continue to evolve based on patient needs and perspectives. We hope the readers find the collection of articles in this series to be a useful and valuable resource. We would like to thank all of the contributing authors, who represent the leaders at the forefront of the arena of breast reconstruction, as well as the staff and editors of *Gland Surgery*

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