

A Return To Baseline: Superior Long-Term Patient-Reported Psychosocial Outcomes In Autologous Breast Reconstruction

Ashley Zhang, BSE¹; Marcos Lu Wang, MD²; Sophia Salingaros, BS¹; Chase C. Alston, MHS¹; Sophia Arbuiso, BS¹; Isaiah J. Rhodes, BS¹; David M. Otterburn, MD¹

¹Division of Plastic Surgery, Weill Cornell Medicine, New York, NY; ²NewYork Presbyterian-Cornell/Columbia, New York, NY

Introduction

- Breast sensation after postmastectomy reconstruction has become increasingly important to patients and surgeons alike, garnering attention on a national scale¹.
- Our team has previously shown superior sensory recovery in autologous compared to alloplastic reconstruction².
- However, the relationship between cutaneous breast sensation and patients’ psychosocial outcomes have not been elucidated.
- Objective: To build upon our previous work by evaluating patient-reported outcomes and cutaneous breast sensation of patients with alloplastic and autologous breast reconstruction

Methods

- Women undergoing mastectomy with immediate two-stage implant-based reconstruction or deep inferior epigastric perforator (DIEP) flap were prospectively identified
- Neurosensory testing performed preoperatively and at defined time points using a pressure-specified sensory device (Fig 2)
- BREAST-Q survey administered at defined time points. Four scales of Reconstruction Module evaluated: Psychosocial Wellbeing, Sexual Wellbeing, Satisfaction with Breasts, and Chest Wellbeing
- Sensation data and BREAST-Q scores of two reconstruction groups analyzed with Wilcox tests

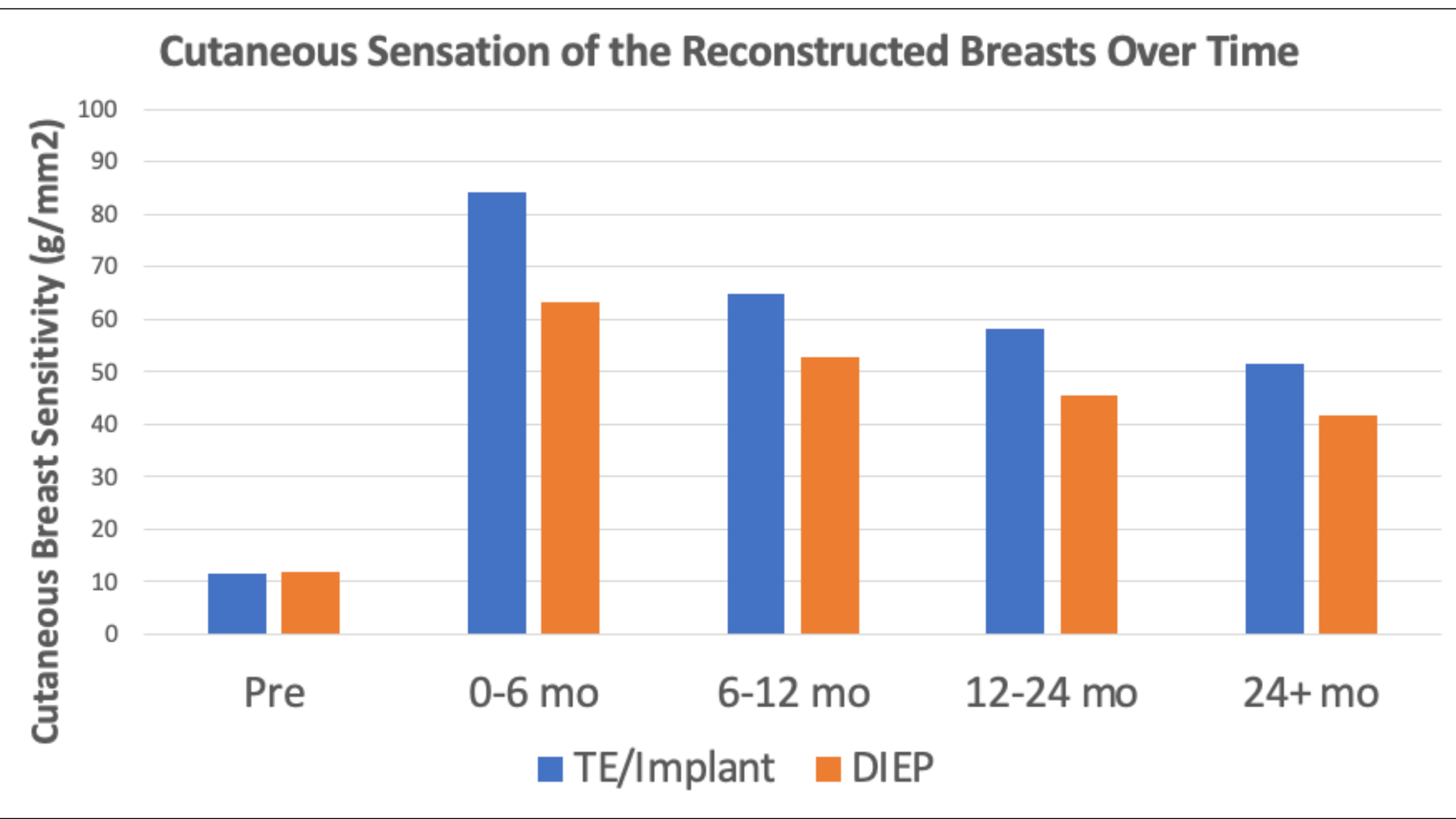
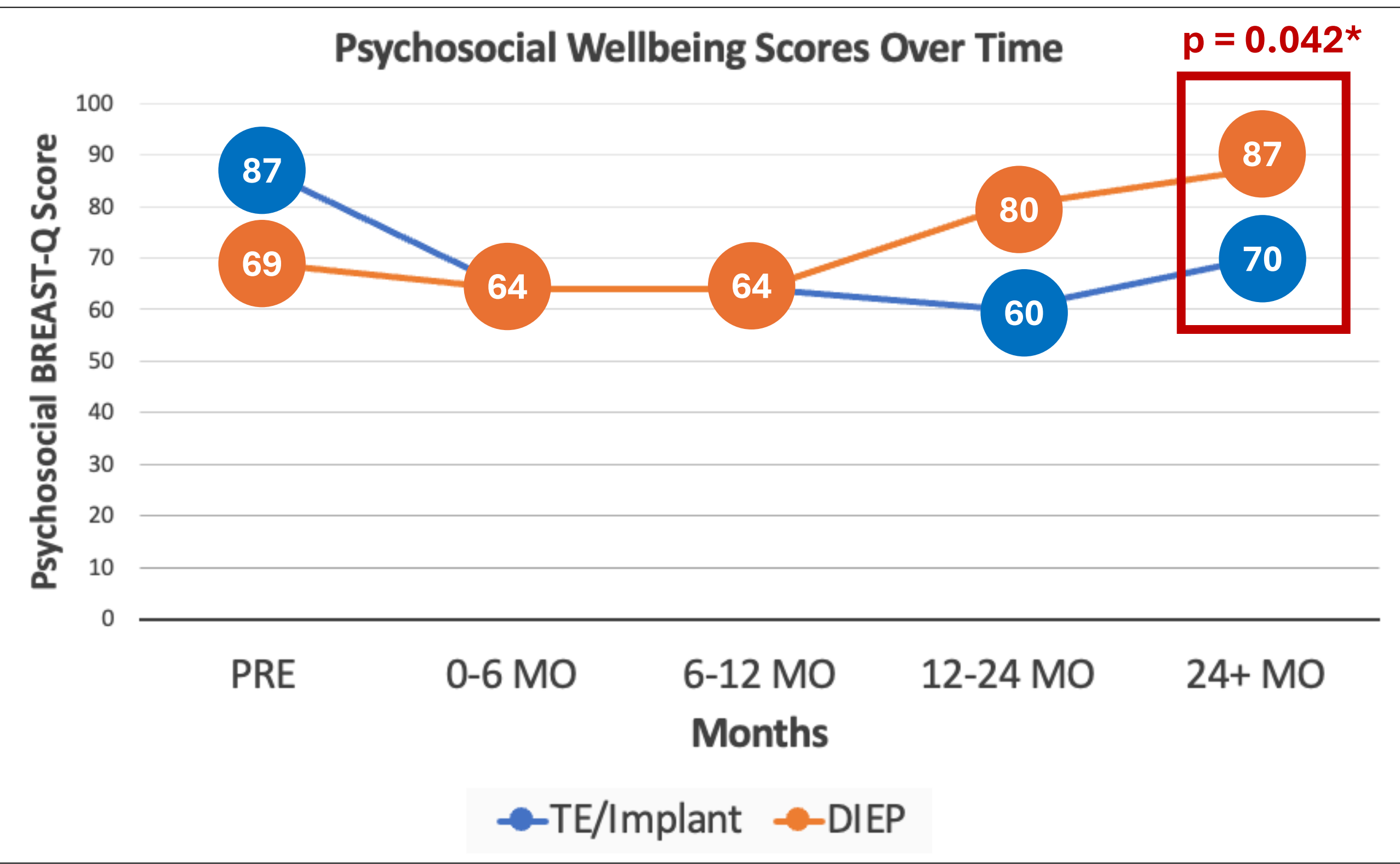


Fig 1: pressure-specified pressure sensor (PSSD)

Results

149 patients included in the study: **77 alloplastic reconstruction, 72 autologous reconstruction**

	Alloplastic	Autologous
Sexual wellbeing		
Pre	66 [59, 84]	75 [62.75, 85.75]
0-6 months	57.5 [47.5, 66]	43 [37.5, 51.5]
6-12 months	48 [39.5, 55.25]	43 [36, 60.5]
12-24 months	50.5 [41.5, 66]	59 [51.5, 72]
24+ months	56 [45.5, 68]	62 [48, 79]
Breast satisfaction		
0-6 months	70 [65, 71.5]	58 [53.75, 59.5]
6-12 months	58.5 [49.5, 66.5]	63 [57, 73]
12-24 months	57 [49.25, 74.75]	82 [42, 86]
24+ months	66 [54, 77.25]	65 [58, 92]
Chest wellbeing		
Pre	82 [73, 91]	92 [92, 92]
0-6 months	64 [53.5, 71]	74 [55, 76]
6-12 months	78 [68, 90.25]	80 [68, 92]
12-24 months	80 [74, 100]	78 [53.75, 94]
24+ months	80 [68, 92]	92 [74, 100]



Conclusion

- Both reconstruction groups had the highest threshold of cutaneous sensitivity 0-6 months after surgery with improvement over time
- Autologous reconstruction had superior cutaneous sensitivity to alloplastic reconstruction at every postoperative timepoint
- Psychosocial Well-being BREAST-Q scores were low in the first year after surgery; patients receiving autologous reconstruction saw improvement in scores after 12 months while patients receiving alloplastic reconstruction saw improvement in scores after 24 months
- At 24+ months after reconstructive surgery, patients receiving autologous reconstruction had significantly higher Psychosocial Wellbeing scores than patients receiving alloplastic reconstruction**
- Patients receiving autologous reconstruction had Psychosocial Wellbeing scores at or above preoperative scores beginning from 12 months after surgery**
- Psychosocial Wellbeing scores of patients receiving alloplastic reconstruction remained lower than preoperative scores over the duration of this study

Disclosure

- No disclosures to report

References

- Rabin, R. C. (2017, January 29). After mastectomies, an unexpected blow: Numb new breasts. The New York Times. <https://www.nytimes.com/2017/01/29/well/live/after-mastectomies-an-unexpected-blow-numb-new-breasts.html>
- Huang H, Wang ML, Ellison A, Otterburn DM. Comparing Autologous to Device-Based Breast Reconstruction: A Pilot Study of Return in Breast Sensation. Ann Plast Surg. 2022;88(3 Suppl 3):S184-S189. doi:10.1097/SAP.0000000000003073