



Evaluating The Impact Of Breast And Nipple Sensation On Quality-of-Life After Nipple-sparing Mastectomy With Implant Reconstruction: Long-term Outcomes Utilizing BREAST-Q

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Background

- The effect of postoperative sensation on quality-of-life (QoL) following nipple-sparing mastectomy (NSM) with implant-based reconstruction is not well-described.
- We evaluated the impact of breast and nipple sensation on QoL using BREAST-Q.

Methods

- Patients undergoing NSM with implant reconstruction from 2008-2020 were mailed a survey to characterize their postoperative sensation.
- BREAST-Q metrics were compared between totally numb patients and those with sensation

Results

- A total of 349 patients were included. Overall, 131 (38%) responded; response rates regarding breast and nipple sensation were 36% (N=124/349) and 34% (N=117/349).
- Median time from surgery to survey completion was 6 years.
- Sensation Outcomes are Outlined in **Table 1**
- BREAST-Q QoL Outcomes are Outlined in **Table 2**
- Total breast numbness resulted in a significantly lower chest physical well-being (Mean Score 73.5 vs. 81.2 respectively, P=0.048).
- Total nipple(s) numbness resulted in significantly lower chest physical (Mean Score 74.8 vs. 85.2 respectively, P=0.007), psychosocial (Mean Score 77.4 vs. 84.4 respectively, P=0.041), and sexual well-being (Mean Score 55.7 vs. 68.3 respectively, P=0.002).

Table 1

Sensation of Reconstructed Breasts	
	Patients (N, %) N=124
Totally Numb	47, 38%
Much Less Sensation than Before Surgery	59, 48%
Somewhat Less Sensation than Before Surgery	14, 11%
Sensation Unchanged	4, 3%
Sensation of Nipple(s)	
	Patients (N, %) N=117
Totally Numb	67, 57%
Much Less Sensation than Before Surgery	37, 32%
Somewhat Less Sensation than Before Surgery	9, 8%
Sensation Unchanged	4, 3%

Table 2

BREAST-Q Metrics and Sensation of Reconstructed Breasts (Mean ±SD, Range)	Total Numbness N= 47	Sensation Present N=77	Total N=124	P-Value
Chest physical well-being	73.5 ±22.5 (8-100)	81.2 ±19.9 (0-100)	78.3 ±21.1 (0-100)	0.048
Psychosocial well-being	75.8 ±20.9 (24-100)	80.8 ±18.0 (21-100)	78.9 ±19.2 (21-100)	0.161
Sexual well-being	54.2 ±18.9 (31-100)	60.7 ±23.6 (0-100)	58.1 ±21.9 (0-100)	0.118

BREAST-Q Metrics and Sensation of Nipple(s) (Mean ±SD, Range)	Total Numbness N=67	Sensation Present N=50	Total N=117	P-Value
Chest physical well-being	74.8 ±22.3 (0-100)	85.2 ±16.1 (40-100)	79.3 ±20.4 (0-100)	0.007
Psychosocial well-being	77.4 ±19.5 (24-100)	84.4 ±15.6 (47-100)	80.4 ±18.2 (24-100)	0.041
Sexual well-being	55.7 ±19.0 (0-100)	68.3 ±21.6 (24-100)	60.8 ±20.9 (0-100)	0.002

Conclusions

- Long-term breast and nipple sensation are significantly diminished after NSM with implant reconstruction.
- Patients with preserved sensation experience better physical, psychosocial, and sexual well-being.