



Let’s Talk Babysitters: An Analysis of Sensory Return and Patient Perceptions in Delayed-Immediate Neurotized DIEP Flap Breast Reconstruction

Marcos Lu Wang BA, Hao Huang MD, Nancy Qin BA, Daniella De Freitas BSN, Angela Ellison MS, David M. Otterburn MD
Division of Plastic and Reconstructive Surgery, Weill Cornell Medicine, New York, NY



Introduction

- Immediate DIEP not suitable for patients who anticipate post-mastectomy radiation therapy
 - Increased risk of flap fibrosis, shrinkage, fat necrosis
- Delayed-immediate “babysitter” reconstruction better option
 - Tissue expander → DIEP flap 6 months post-radiation
- **Aim 1: temporal pattern of sensory changes in delayed-immediate**
- **Aim 2: compare with immediate DIEP flaps**
- **Aim 3: differences in patient perceptions**

Methods

- Prospective study, **delayed-immediate vs immediate** reconstruction
- 1-point cutaneous measurements using pressure-specified sensory device → higher measurements, worse results

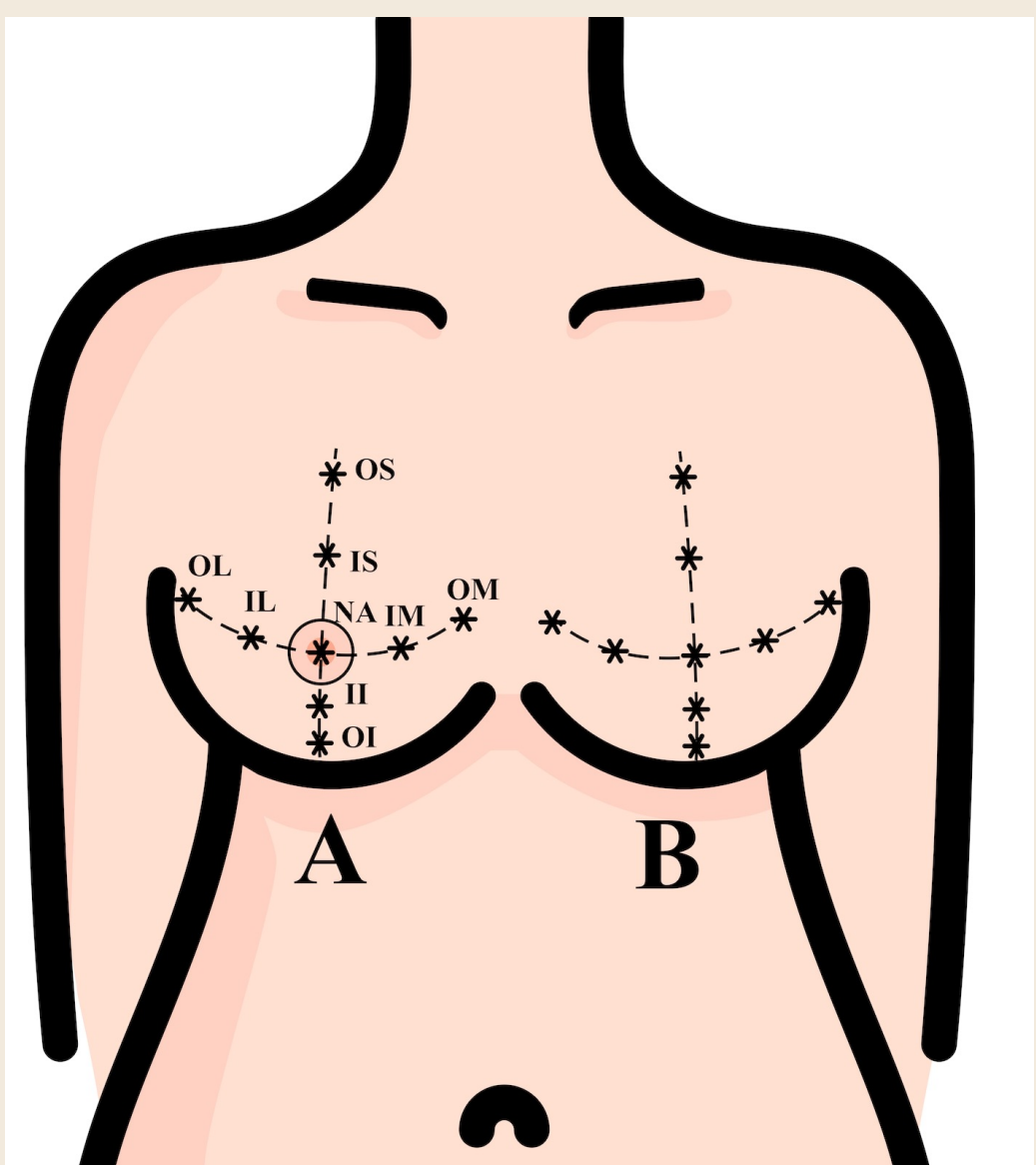


Figure 1. Measurements were performed in 9 breast regions and averaged (outer superior, outer medial, outer inferior, outer lateral, inner superior, inner medial, inner inferior, inner lateral, nipple areola complex)

- Measurements: **preop, 18, and 24 months postop**
- **Reconstructive BREAST-Q**

Results

- 91 patients
 - 26 patients (46 breasts) delayed-immediate DIEP
 - 65 patients (120 breasts) immediate DIEP
- Two cohorts were comparable in age, BMI, oncologic regimen ($p > 0.05$)
- Delayed-immediate: **final flap reconstruction on average at 12 months post-mastectomy**
- Delayed-immediate temporal pattern: similar as immediate DIEP
 - **18 months post-mastectomy (6 months post-delayed DIEP):**
 - Comparable to baseline in outer superior, outer medial, outer lateral regions ($p > 0.05$)
 - **24 months post-mastectomy (12 months post-delayed DIEP)**
 - Comparable to baseline in all regions except inner inferior region ($p = 0.016$)
- **Comparison at 18 months postop: delayed-immediate comparable to immediate cohort**

Table 1. Comparison of mean 1-point cutaneous threshold measurements between “babysitter” and immediate DIEP groups at 18 months post-operatively.

Region	“Babysitter” ⁺	Immediate DIEP ⁺	<i>p</i>
Outer superior	36.8	31.8	0.62
Outer medial	32.1	29.6	0.78
Outer inferior	49.5	45.1	0.71
Outer lateral	36.1	38.5	0.82
Inner superior	59.7	48.1	0.29
Inner medial	46.5	49.5	0.80
Inner inferior	55.8	62.0	0.59
Inner lateral	56.8	64.3	0.56
Nipple areola complex	55.6	47.2	0.46

⁺Measured in g/mm²

- Reconstructive BREAST-Q
 - No significant difference between two cohorts at either 18 or 24 months

Table 2. Comparison of BREAST-Q scores at 18 months postoperatively

BREAST-Q Section	Delayed-Immediate	Immediate	<i>p</i>
Breast Satisfaction	65.2	67.0	0.86
Physical wellbeing	72.6	74.1	0.89
Psychosocial wellbeing	74.3	73.2	0.91
Sexual wellbeing	56.3	49.1	0.52

Table 3. Comparison of BREAST-Q scores at 24 months postoperatively

BREAST-Q Section	Delayed-Immediate	Immediate	<i>p</i>
Breast Satisfaction	76.5	70.6	0.62
Physical wellbeing	80.1	80.8	0.95
Psychosocial wellbeing	84.2	70.8	0.18
Sexual wellbeing	67.1	43.6	0.08

Conclusions

- Delayed-immediate DIEP sensory recovery comparable to immediate DIEP
- Combination of sensory return from native mastectomy skin flap and neurotized flap

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