

Nipple-areolar Complex Reconstruction following Postmastectomy Breast Reconstruction: A Comparative Utility Assessment Study

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Background: Nipple-areola complex (NAC) reconstruction occurs toward the final stage of breast reconstruction; however, not all women follow through with these procedures. The goal of this study was to determine the impact of the health state burden of living with a reconstructed breast before NAC reconstruction.

Methods: A sample of the population and medical students at McGill University were recruited to establish the utility scores [visual analog scale (VAS), time trade-off (TTO), and standard gamble (SG)] of living with an NAC deformity. Utility scores for monocular and binocular blindness were determined for validation and comparison. Linear regression and Student's *t* test were used for statistical analysis, and significance was set at $P < 0.05$.

Results: There were 103 prospective volunteers included. Utility scores (VAS, TTO, and SG) for NAC deformity were 0.84 ± 0.18 , 0.92 ± 0.11 , and 0.92 ± 0.11 , respectively. Age, gender, and ethnicity were not statistically significant independent predictors of utility scores. Income thresholds of $< \$10,000$ and $> \$10,000$ revealed a statistically significant difference for VAS ($P = 0.049$) and SG ($P = 0.015$). Linear regression analysis showed that medical education was directly proportional to the SG and TTO scores ($P < 0.05$).

Conclusions: The absence of NAC in a reconstructed breast can be objectively assessed using utility scores (VAS, 0.84 ± 0.18 ; TTO, 0.92 ± 0.11 ; SG, 0.92 ± 0.11). In comparison to prior reported conditions, the quality of life in patients choosing to undergo NAC reconstruction is similar to that of persons living with a nasal deformity or an aging neck requiring rejuvenation. (*Plast Reconstr Surg Glob Open* 2015;3:e380; doi: 10.1097/GOX.000000000000133; Published online 20 April 2015.)

The goal of breast reconstruction following mastectomy is ultimately the creation of a breast that is aesthetically pleasing and closely resembles its natural configuration. Breast reconstruction is generally performed in multiple stages and may

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include many revisions to address issues with shape and symmetry.¹⁻³ As such, there is no clear indication as to when the reconstructive process is complete.¹ It is considered by some to be when patients are satisfied with the appearance of their breast or when no more procedures are required.¹

Nipple reconstruction is a fundamental part of the reconstructive process as patients associate this step with the endpoint of the reconstructive process.^{2,4} Moreover, it provides improved aesthetic

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