

Impact of Patient Age on Quality of Life and Prosthesis Satisfaction Following Major Lower Extremity Amputation

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OBJECTIVE

- Major amputations have a profound impact on an individual's mobility and functionality
- There has been little focus on well-being (quality of life [QoL] or satisfaction) following nontraumatic lower extremity amputation (LEA) in patients receiving prosthesis care
- This study aimed to assess the impact of age on well-being following LEA

METHODS

- This was a retrospective study examining a cohort of patients at two academic institutions between 2017-2024 who underwent lower extremity amputation and were fitted with a prosthesis by the institutional vendor
- Patients were evaluated using the well-being subsection of the Prosthesis Evaluation Questionnaire (PEQ-WB)
- Optimal patient well-being was defined using QoL scores ≥ 8 and satisfaction scores ≥ 7
- The primary exposure was age < 50 years old and ≥ 50 years old
- The primary outcomes of interest were well-being subscores of satisfaction and QoL following LEA and prosthetic fitting
- The secondary outcome was change in satisfaction and QoL over time

RESULTS

Table 1. Quality of Life and Satisfaction scores after Nontraumatic Major Lower Extremity Amputation, by age

	Overall	Age ≥ 50 years	Age < 50 years	P value
QoL Scores	n = 73	n = 50	n = 23	0.03
QoL ≥ 8	49.3% (36)	42.0% (21)	65.2% (15)	
QoL < 8	50.7% (37)	58.0% (29)	34.8% (8)	
Satisfaction Scores				0.19
Satisfaction ≥ 7	53.4% (39)	50.0% (25)	60.9% (14)	
Satisfaction < 7	46.6% (34)	50.0% (25)	39.1% (9)	
Change in QoL Scores	n = 36	n = 24	n = 12	0.18
Improvement	36.1% (13)	41.7% (10)	25.0% (3)	
No Improvement	63.9% (23)	58.3% (14)	75.0% (9)	
Change in Satisfaction Scores				0.33
Improvement	38.9% (14)	41.7% (10)	33.3% (4)	
No Improvement	61.1% (22)	58.3% (14)	66.7% (8)	

- Among 73 patients who underwent LEA, the median age was 58 years old, 71.2% were male, 63.0% were Black
- Patients under age 50 had fewer associated comorbid diagnoses including peripheral arterial disease, diabetes mellitus, hypertension, chronic kidney disease, or lifetime tobacco use
- There were no statistical differences in above or below knee amputations.
- The indication for LEA was most commonly ischemia/gangrene (50.7%, n=37)
- A higher proportion of patients over 50 years old (58.0%) reported less than optimal QoL scores compared to patients less than 50 years old (34.8%) (Table 1)
- A higher proportion of patients less than 50 years old reported higher satisfaction scores, but these did not reach statistical significance
- Follow-up questionnaires were completed by 49.3% (n=36) of the cohort and found no significant differences between age groups in improvement in QoL or satisfaction scores over time (Table 1)

CONCLUSION

- Individuals who undergo major lower extremity amputations and are age ≥ 50 years report poorer QoL and satisfaction scores
- Individuals < 50 years of age who undergo major lower extremity amputations report higher satisfaction and QoL scores
- Next steps should include examining healthcare utilization and processes with the goal of understanding barriers to care and satisfaction in an effort to improve self-reported well-being and longitudinal prosthetic care in LEA individuals, particularly in higher age groups