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# IS LIMB-SPARING SURGERY MORE EFFECTIVE THAN AMPUTATION IN ENHANCING PATIENTS' QUALITY OF LIFE AND FUNCTIONAL CAPACITY?

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## Background and Aims

For patients with aggressive musculoskeletal tumors in the lower extremities, treatment options may include above-knee amputation or limb-salvage surgery. However, the comparative subjective and objective advantages of limb-salvage surgery over amputation remain uncertain. This study aims to compare functional status and quality of life for patients treated with above-knee amputation versus limb-salvage surgery.

## Methods

As part of a retrospective cohort study, we analyzed 39 out of 68 patients aged 17 years and older who underwent either above-knee amputation or limb-salvage surgery for aggressive musculoskeletal tumors around the knee between 2014 and 2022. During the final follow-up, we collected data using the Physiological Cost Index, the Reintegration to Normal Living Index, SF-36, and the Toronto Extremity Salvage Score questionnaires. The minimum follow-up duration was 14 months, with a median of 60 months

## Results

Patients who underwent limb-salvage surgery demonstrated higher Physiological Cost Index scores and greater reintegration into normal living than those who had above-knee amputation. However, the Toronto Extremity Salvage Scores and SF-36 outcomes were comparable between the groups.

## Conclusion

These findings indicate that limb-salvage surgery provides superior gait efficiency and facilitates reintegration into daily life compared to above-knee amputation. However, it does not enhance the patient's perceived quality of life

**Keywords:** Limb, sparing, surgery, amputation, functional