

# LOWER LIMB AMPUTATION AND LOW BACK PAIN: A 2024 RETROSPECTIVE ANALYSIS AT CENTRO DE MEDICINA DE REABILITAÇÃO DE ALCOITÃO

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## Background and Aims

Despite advances in the treatment of peripheral arterial disease, lower limb amputation remains necessary for a significant number of patients. Low back pain (LBP) is one of the most common pain complaints following amputation, occurring in over half of unilateral lower limb amputees. Several mechanical factors contribute to LBP in amputees, including movement asymmetry, altered joint forces, limb length discrepancy, prosthesis type, muscle atrophy, and weakness.

## Methods

A retrospective observational study was conducted, including all patients assessed in the amputee rehabilitation consultation from January to December 2024. Data collected included demographics, amputation type and level, prosthetic use, functional classification (K levels), presence of LBP, stump and phantom limb pain, and prescription of assistive devices.

## Results

A total of 261 amputees were included, predominantly male (73.56%), with a mean age of 57.47 years. Lower limb amputations accounted for 90.01%, mainly unilateral transtibial amputations (39.46%). Vascular causes were responsible for 45% of cases. At evaluation, 73.56% used prostheses, with most classified as K1 (35.63 %). LBP was reported by 25% of patients, although 18% of records lacked this information. Most patients with LBP were transfemoral amputees (75.58%). Stump pain was reported by 13% and phantom limb pain by 32% of patients.

## Conclusion

Although LBP is prevalent among amputees, the observed prevalence may have been underestimated due to sample size limitations and incomplete data. Even though it was not analyzed in our study, it would be important to investigate the most common causes of low back pain in our amputee patients and to determine which patient groups are more frequently affected. This is important to prevent or treat this condition, which adds further disability to the amputee and worsens their quality of life. Larger studies are needed to clarify LBP aethiology and prevalence in this population.

**Keywords:** Low back pain; amputation