

# Mortality after hip or knee arthroplasty for osteoarthritis in Chile: A survival analysis

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## Abstract

### Background

The purpose of this study is to determine if patients with osteoarthritis that undergo hip or knee arthroplasty jeopardize their life expectancy in Chile.

### Methods

A survival analysis study was designed and approved by our institutional ethics review board. Patients were included if they underwent surgery for hip or knee osteoarthritis and were 50 years or older at the time of surgery. Patients were excluded if arthroplasty was performed for fracture, hemophilia arthropathy, or tumor. A multiparametric Weibull regression was estimated, and the hazard ratio was reported. For internal validity, a bootstrap of 200 repetitions was performed.

### Results

A total of 4 094 arthroplasties were included. The Kaplan-Meier curve estimates a higher survival than the general population up to 12 years, after which the median survival is less than the general population. The bootstrap multiparametric Weibull regression estimated a hazard ratio of 1.53 (95% confidence interval: 1.27 to 1.84) for women, 1.09 (1.08 to 1.10) for every year older, and 1.29 (1.07 to 1.53) for hip arthroplasty patients.

### Conclusion

Mortality after hip and knee arthroplasty in Chile follows a bimodal behavior similar to reports from the

United States and Europe. At first, mortality is lower than the general population but worsens after 12 to 15 years of surgery.

### Palabras clave

**Palabras clave de autor:**[hip arthroplasty](#); [knee arthroplasty](#); [osteoarthritis](#); [epidemiology](#); [survival analysis](#)

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### Editorial

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