

## Comparative Analysis of Quality of Life, and Sport Activities, After Lower-Limb Joint Replacement: 42 TAAs, 60 TKAs and 132 THAs.

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**Introduction/Purpose:** For 30 years THA and TKA have been gold standards for severe osteoarthritis. Results are not better in TAA than in ankle arthrodesis according to meta-analysis. Ten year TAA survivorship improved from 80 to 90% but is still worse than in THA and TKA. It is generally thought that THA has better results than TKA and TAA but there have been few quality of life comparative studies.

The present study compared functional results, quality of life (QoL) and sports capacity following ankle (TAA), hip (THA) and knee arthroplasty (TKA).

**Methods:** Three continuous series (69 TAA, 716 THA, 121 TKA) operated on by 3 senior surgeons, from 2006 to 2011, were matched for age and follow-up. Patients older than 80 years, multiple arthroplasty in different joints, rheumatoid arthritis and revision of components were excluded.

Questionnaires on general quality of life (SF-36, WOMAC, Bonnin's sports questionnaire) and specific function (AOFAS, FAAM, IKS function, Harris) were sent to 3 series (42 TAA, 132 THA and 60 TKA). Statistical analysis used JMP Pro 9.0.0 software. 95% of TAA (42 patients, FU 35±16.2 months, age 63±10.1 years), 82.9% of THA (132 patients, FU 31.5±6.7 months, age 64±8.4 years) and 86.6% of TKA patients (60 patients, FU 31.4±9.4 months, age 71.8±6.7 years) responded.

**Results:** 76.3% of TAA, 90.2% of THA and 84.6% of TKA patients were very satisfied or satisfied. Global SF-36 scores were 58.5±18.5 (TAA), 64.5±16 (THA) and 55.3±17.4 (TKA). Le Global WOMAC scores (/96pts. the higher the more severe) were 25.3±18.3 (TAA), 14.2±16.7 (THA), and 21.4±24.5 (TKA). Functional results were good or excellent in 60.6% of TAAs (AOFAS score), 78.3% of THAs (Harris score) and 48.7% of TKAs (IKS score). Activity of Daily Living FAAM subscales (/84pts) were 54.9±22.5; Sports FAAM subscales (/32pts) 8.2±9.1. Sporting activity was frequent: 86.8% (TAA), 86.9% (THA) and 74.4% (TKA), and pain-free in 44%, 66.8% and 62.9% respectively. TAA patients practiced a mean 3.3 sports, THA patients 2.5 and TKA patients 1.9.

**Conclusion:** QoL on SF36 was better in THA, and equivalent between TAA and TKA. Specific scores were less relevant than general scores. Sports activities were most restricted in TKA. This encourages the use of TAA. There is still work to do to improve specific scores.

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