

Artificial hips find some sports wearing

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A growing number of patients want to return to sport, and in some cases high-impact sports like jogging and soccer, after total hip replacement (or arthroplasty) operations. Although many surgeons already recommend certain activities more than others, little research has been performed to confirm whether these recommendations will reduce the lifespan of the artificial joint.

Ollivier and colleagues compared the function, wear rates and lifespan (or so-called 'survivorship', measured by either the need for revision due to mechanical failure, or signs of loosening) of [hip implants](#) in 70 patients who took part in high-impact sports and 140 with lower activity levels. These measurements were taken at least 11 years after the participants had the surgery. The patients were also asked to complete sports and quality-of-life questionnaires. X-rays of the hips and [pelvis](#) were taken and assessed after the operation.

Even though patients practicing high-impact sports had better function and better quality of life score than patients involved in lower-level activities at a minimum of ten years after the surgery, involvement in high-impact sport reduced the durability of the implants over a 10-15 year period. At 15 years' followup, the survivorship of the implants was 80 percent in the high-impact group compared to almost 94 percent in the low-activity group. Interestingly, both practicing a high-impact sport and being a male were factors for an increased wear rate over time, although the reasons for the gender difference are unclear.

The authors conclude: "These observations confirm experts' concerns

about the potential risk related to high-impact sport and both patients and surgeons should be aware of these risks. Since participation in sport is now a reality for a significant number of total [hip arthroplasty](#) patients, surgeons may need to adapt their choices of bearing surfaces in implants to accommodate this growing trend."

More information: Ollivier M et al (2012). Does impact sport activity influence total hip arthroplasty durability? *Clinical Orthopaedics and Related Research*. [DOI 10.1007/s11999-012-2362-z](https://doi.org/10.1007/s11999-012-2362-z)

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