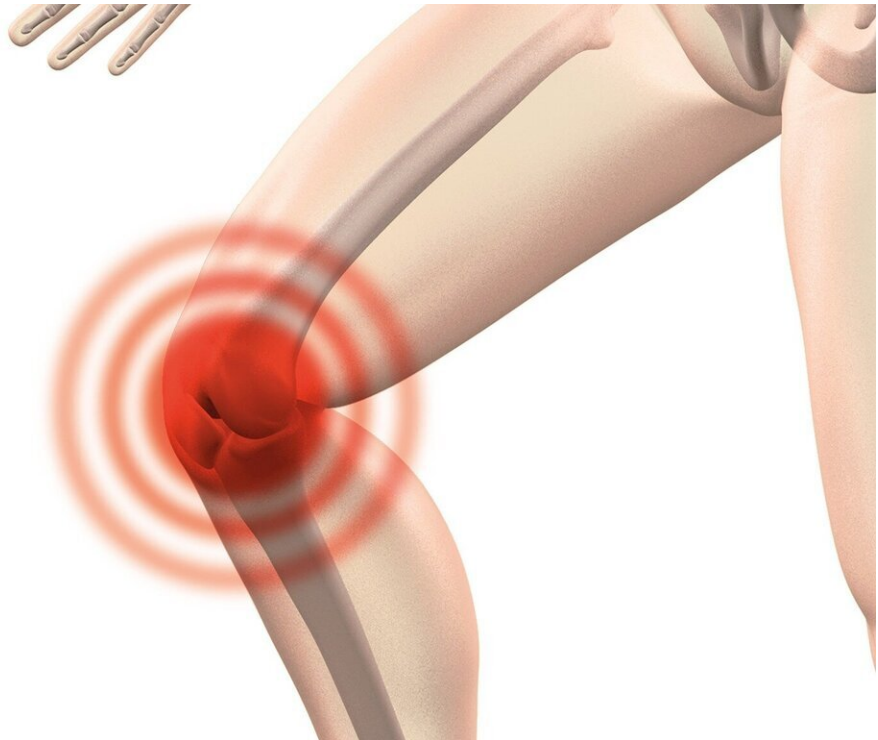


# New online tool predicts individual risks and benefits of joint replacements

June 7 2019

---



Credit: CC0 Public Domain

An innovative online tool devised by researchers from the University of Sheffield will give patients unique personalised information about the risks and benefits of having a joint replacement for the first time.

A total of over 220,000 hip and knee [replacement](#) procedures are

performed in the UK each year. At the moment, patients are given very general [information](#) about the procedure either from their GP, consultant or by searching on the internet.

The easy-to-use Patient Decision Aid For Joint Replacement generates an individualised set of results for patients based on a variety of factors including: how long the implant will last, predicted pain and function levels before and after [surgery](#) and the associated risks such as death rate.

Information from more than one million patients who have already undergone hip and knee replacements, recorded by the National Joint Registry, was used to create the intuitive tool which it is hoped will both improve the success rate of joint replacements and prevent unnecessary surgery, saving the NHS money.

Professor Mark Wilkinson from the University of Sheffield's Department of Oncology and Metabolism led the creation of the new tool, which can be used by patients in their own homes or by GPs during patient appointments.

He said: "At the moment it is impossible for GPs and consultants to give each individual patient tailored information specific to them and their lifestyle. By using data from more than one million patients who have already undergone surgery, and information from individuals about their lifestyle and how [joint pain](#) currently impacts on their life, the tool is able to provide the risks and benefits in more detail than ever before.

"Everyone has slightly different expectations about what they hope their treatment will provide for them and hopefully the risk calculator will answer their questions.

"We hope the tool will help [patients](#) make better decisions about

undergoing joint replacements based on their own personal circumstances. Patients also have the option to see how their results would change if, for instance, they lost weight or if they waited a couple of years before surgery."

Marian Whitney, 85, from Sheffield went to the GP two years ago after suffering from [hip pain](#) which was affecting her active lifestyle. She was referred to a consultant earlier this year and is currently waiting for an appointment to discuss a potential replacement.

She said: "It was really interesting to find out all of the specific information about myself and what the outcomes are likely to be if I were to have the operation, such as how much it would improve my life and what the chances were of dying from the operation—it was all very interesting and I think the whole thing is very well thought out.

"I have a very active social life and enjoy a number of hobbies such as croquet, so I have always been concerned about the length of time it would take me to recover from a hip replacement."

She added: "Using the tool has given me a whole host of information which I can now talk through with the consultant at my forthcoming appointment. It has been very helpful and I am sure it will be useful for lots of people in a similar position to myself."

Martha Holmes, 69, from Sheffield, underwent her first hip replacement four years ago and a replacement of the other hip nine months ago. She said the tool would have been very useful when thinking about the decision to have surgery.

She said: "I always try to encourage anyone who is thinking about a replacement to go for it, and go for it as soon as possible. I'm a big walker and love going out hiking and it got to the stage where I could

barely walk up the street. For me, not being able to walk really got me down.

"When you are deciding whether or not to have a hip replacement you have to think about what things you love to do that you can't do now and then think about getting that back again."

The tool was built by the University of Sheffield in collaboration with the University of Bristol, with support from the National Joint Registry and Versus Arthritis.

The data for the [tool](#) was provided by the National Joint Registry for England, Wales, Northern Ireland and the Isle of Man which collects information on hip, knee, ankle, elbow and shoulder replacement surgery and monitors the performance of [joint replacement](#) implants. The organisation started collecting data in April 2003 and submission for NHS organisations has been mandatory since April 2011, as part of a continuous drive to improve the quality of outcomes of joint replacement surgery and support and enable related research.

**More information:** The Joint Replacement Risk Calculator:  
[jointcalc.shef.ac.uk/](http://jointcalc.shef.ac.uk/)

Provided by University of Sheffield

Citation: New online tool predicts individual risks and benefits of joint replacements (2019, June 7) retrieved 6 May 2024 from  
<https://medicalxpress.com/news/2019-06-online-tool-individual-benefits-joint.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.