

Nonsurgical Orthopaedic Options Often Equal to Surgery



University of Bristol researchers recently examined the outcomes of ten common orthopaedic operations, including knee, hip, shoulder, spine, and wrist surgeries. They found that surgical treatments were often no more effective than less invasive options like exercise, physical therapy, and pharmaceuticals. These surgical procedures often involve cost, risk, and long recovery periods. For many of these surgeries, the evidence from randomised trials does not support their use. Even when effective, outcomes were often not superior to non-surgical care.

They systematically evaluated all studies in Medline, Embase, and the Cochrane Library from inception to September 2020 that compared the clinical effectiveness of each orthopaedic intervention to no treatment, placebo, or non-operative care.

Only for carpal tunnel syndrome and total knee replacement did surgery demonstrate superiority over other treatments. Randomised controlled trials showed similar outcomes to non-operative care for arthroscopic anterior cruciate ligament reconstruction, arthroscopic partial meniscectomy, arthroscopic repair for acute rotator cuff tears, arthroscopic subacromial decompression, lumbar spinal decompression for spinal canal stenosis, and spinal fusion for degenerative disc disease. Non-operative care options included exercise, weight management, physical therapy, and drug treatment. No controlled trials directly compared hip replacement or knee cartilage repair to non-operative care.

Although many of these surgical procedures are recommended by U.K. national guidelines, their review shows that there's a lack of randomised controlled trials that compare the procedure with non-operative care. Support for these procedures mainly relies on comparisons between two or more different techniques of the same procedure (for example, endoscopic versus open), observational retrospective studies, case series with no control groups, and expert opinions. The authors note: 'This lack of randomised controlled trials evidence does not mean that the interventions are ineffective, but without evidence from randomised controlled trials, disentangling regression to the mean, surgical placebo, and the true treatment effect is extremely difficult.'

The authors conclude that there's a lack of definitive trials. Where randomised controlled trials exist, sometimes they support observational evidence and expert opinion, but not always. Although imperfect, clinicians must make decisions based on observational evidence. Likewise, funding bodies should seek to fill these knowledge gaps with well-constructed randomised controlled trials.

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