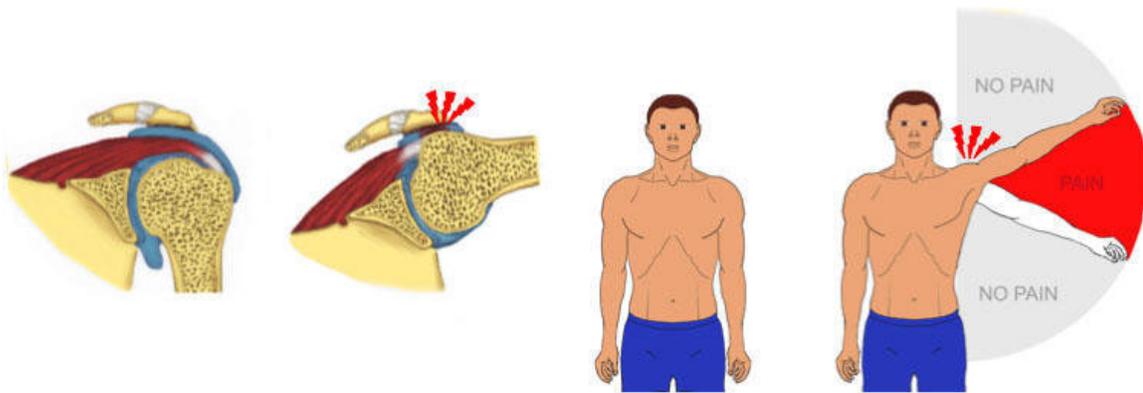


Most common shoulder operation is no more beneficial than placebo surgery

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Credit: Ficebo Group

In a landmark study published this week in the *BMJ*, Finnish researchers showed that one of the most common surgical procedures in the Western world is probably unnecessary. Keyhole surgeries of the shoulder are useless for patients with shoulder impingement, the most common diagnosis in patients with shoulder pain.

The Finnish Shoulder Impingement Arthroscopy Controlled Trial (FIMPACT) compared surgical [treatment](#) of [shoulder](#) impingement syndrome to placebo [surgery](#). Two years after the procedure the study participants, both those in the group who underwent surgery and the ones

in the placebo group, had equally little shoulder pain and were equally satisfied with the overall situation of their shoulder.

"These results show that this type of surgery is not an effective form of treatment for this most common shoulder complaint. With results as crystal clear as this, we expect that this will lead to major changes in contemporary treatment practices," said the study's principal investigators chief surgeon Mika Paavola and professor Teppo Järvinen from the Helsinki University Hospital and University of Helsinki.

Shoulder problems are very common and place a significant burden on the health care system. The most common diagnosis for shoulder pain that requires treatment is shoulder impingement, and the most common surgical treatment is [decompression](#) through keyhole surgery, i.e., arthroscopy.

"With nearly 21,000 decompression surgeries done in U.K. every year, and 10 times that many in the United States, the impact of this study is huge," explained adjunct professor Simo Taimela, the research director of the Finnish Centre for Evidence-Based Orthopedics (FICEBO) at the University of Helsinki.

This research confirms previous randomised studies showing that keyhole decompression surgery of the shoulder does not alleviate the symptoms of patients any better than physiotherapy. Paradoxically, however, the number of decompression surgeries has increased significantly, even though solid proof of the impact of the surgery on the symptoms has been lacking.

The FIMPACT study involved 189 patients suffering from persistent shoulder pain for at least three months despite receiving conservative treatment, physiotherapy and steroid injections. Patients were randomised to receive one of three different treatment options,

subacromial decompression surgery, placebo surgery (diagnostic arthroscopy, which involved arthroscopic examination of the [shoulder joint](#) but no therapeutic procedures) or supervised exercise therapy.

No one involved in the study—including the patients, the persons involved in their care after surgery, and the researchers who analysed the results—knew which patient was in the decompression or placebo group.

Two years after the start of the study, patients were asked about shoulder pain and other symptoms they had experienced, as well as their satisfaction with the treatment and its results. The patients in the decompression or placebo groups were also asked which group they believed they had been in—actual surgery or placebo.

Overall, shoulder pain was substantially improved in all three groups from the start of the trial. However, decompression surgery offered no greater benefit to shoulder pain than placebo surgery. The patients in the diagnostic arthroscopy group were no more likely than those in the decompression group to guess that they had had a placebo procedure.

The group that received exercise therapy also improved over time, to the point that patients who initially had decompression surgery were only slightly more improved than those who had physiotherapy only. Although this latter finding could be interpreted as evidence to support decompression surgery, the authors did not find the difference in improvement to be clinically significant.

"Based on these results, we should question the current line of treatment according to which patients with [shoulder pain](#) attributed to shoulder impingement are treated with decompression surgery, as it seems clear that instead of surgery, the treatment of such patients should hinge on nonoperative means," Järvinen states. "By ceasing the procedures which have proven ineffective, we would avoid performing hundreds of

thousands useless surgeries every year in the world," Järvinen points out. "Fortunately, there seems to be light at the end of the tunnel as the NHS in England just released a statement that they will start restricting funding for 'unnecessary procedures' and the list includes subacromial decompression. We applaud this initiative and encourage other countries to follow this lead."

"We have to spend taxpayers' money responsibly. If we are spending money on procedures that are not effective, that money is deprived from treatments that are clinically effective and would provide benefits to [patients](#). One component in becoming more efficient is to make sure we are not undertaking unnecessary procedures," Dr. Taimela concludes.

The FIMPACT research project includes the Helsinki and Tampere University Hospitals in Finland. The study is published in *The BMJ* on 19 July 2018.

More information: Mika Paavola et al, Subacromial decompression versus diagnostic arthroscopy for shoulder impingement: randomised, placebo surgery controlled clinical trial, *BMJ* (2018). [DOI: 10.1136/bmj.k2860](#)

Provided by University of Helsinki

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