

# Disc Arthroplasty Position Statement

As of 22 April

Disc arthroplasty is proposed as an alternative to spinal fusion surgery, for specific indications, on the basis that preserving segmental motion may reduce the subsequent development of adjacent segment degeneration.

There is both in vitro and in vivo evidence to suggest that disc arthroplasty may reduce adjacent segment degeneration

Recent randomised comparative trials of both disc arthroplasty and fusion in both the lumbar and cervical spines, indicate non-inferiority or superiority of disc arthroplasty compared with fusion surgery, two years following surgery.

Although non-comparative studies report acceptable clinical outcomes following both disc arthroplasty and fusion in the medium and long terms, it is not yet known whether disc arthroplasty or fusion surgery is associated with better clinical outcomes beyond two years.

Long-term follow-up studies will be needed to determine this. Further studies are also required to determine the long-term survival of disc prostheses and cost-effectiveness of disc arthroplasty compared with fusion.

The SSA makes the following recommendations:

- Surgeons should undergo specific training prior to undertaking disc arthroplasty, as the insertion of disc prostheses or subsequent revision procedures can be the cause of serious complications.
- Surgeons should inform patients of the current uncertainty regarding the long-term benefits and risks of disc arthroplasty compared with fusion surgery prior to undertaking disc arthroplasty
- Surgeons should prospectively collect pre- and post-operative data using validated outcome measures.
- Surgeons should critically evaluate their results and make them available for independent peer review