

## Indirect Decompression in Spine Surgery: An Increasingly Popular Technique

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Spinal decompression surgery alone or in combination with fusion surgery (instrumented or uninstrumented) has been the mainstay of the treatment for the majority of degenerative spinal conditions. Nevertheless, the direct decompression techniques are associated with a greater risk of complications, which mainly include bleeding, inadvertent durotomy, neural injury, epidural fibrosis and spinal instability [1]. Due to the same reason, the surgeons are inclining towards the indirect methods of decompression.

Indirect decompression has been utilized for the spinal pathologies in all the regions preferably in the lumbar spine. The principle of indirect decompression can be broadly divided into two categories; segmental and global [2]. The segmental techniques most commonly involve the distraction of disc space in order to increase the foraminal height and widen the spinal canal [3]. Transforaminal lumbar interbody fusion (TLIF), extreme lateral lumbar interbody fusion (XLIF) and oblique lumbar interbody fusion (OLIF) are some of the widely used indirect decompression techniques in the lumbar region. Posterior instrumentation alone can also be used to decompress the spinal segments by realigning the spine and correcting the segmental deformity. The later principle is the basis of treating vertebral body burst fracture and cervical spinal stenosis resulting from the segmental kyphosis by achieving the indirect decompression by restoring the alignment. The Global technique involves the multisegmental correction of spinal deformity to shift the spinal cord away from the ventral compressive pathology [3].

The recent literature has demonstrated the equivalent clinical and radiological outcomes of the direct and indirect decompression methods. Not surprisingly, the lower risk of perioperative and postoperative

morbidities with the indirect methods, the spine surgeons' preference is gradually skewing towards such surgical techniques in the recent times.

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