

2004

2003-2005

In 2004, the [SpineAssist \(Mazor Robotics Ltd., Caesarea, Israel\)](#) was the first [robot](#) approved by the [FDA](#) for use in [spinal surgery](#) and remained one of the most widely used ¹⁾.

The “isomorphic subtype of [diffuse astrocytoma](#)” was identified histologically in 2004 as a [supratentorial](#), highly differentiated [glioma](#) with low [cellularity](#), low proliferation and focal diffuse brain infiltration. Patients typically had [seizures](#) since childhood and all were operated on as adults.

The implementation of a universal [surgical safety checklist protocol](#) in 2004 was intended to minimize the prevalence of [wrong site surgery](#) (WSS). However, complete elimination of WSS in the [operating room](#) continues to be a challenge.

The [Charité artificial disc](#) went through revisions over 6 years, resulting in the SB Charité III, and the first clinical experience was published in 1994 using the final version of the SB Charité III (DePuy Spine Inc, Raynham, Massachusetts) ²⁾.

The clinical trial in the United States for Food and Drug Administration (FDA) approval began in 2000, and the device was cleared for use in 2004. Since then, multiple other lumbar arthroplasty devices have been developed and have become available in the United States and Europe ³⁾.

The second generation of artificial disc design, ProDisc-L (Centinel Spine, West Chester, Pennsylvania), was granted FDA approval in 2006, followed by a third-generation artificial disc design, activL (Aesculap Implant Systems, Center Valley, Pennsylvania) in 2015.

In a survey of United States Neurosurgical residency program directors in 2004, it was found that most programs (80.6%) use a training curriculum that is developed locally or from the Congress of Neurological Surgeons curriculum. The 6 ACGME-mandated general competency measurement for surveying residents' education were considered by the vast majority of neurosurgical program directors to be difficult to understand or to have no benefit, compared with existing training evaluation methods. 36.8% of the program directors think that the case experience methods used for assessment needed significant revision and 51% think it requires minor revision ⁴⁾.

Neurospine (ISO abbreviated journal name, Neurospine), the official journal of ASIA SPINE, the [Neurospinal Society of Japan](#), [Taiwan Neurosurgical Spine Society](#), and the [Korean Spinal Neurosurgery Society](#), is an international [peer reviewed](#) open-access [journal](#) which published quarterly (last day of March, June, September, and December). It was first published in March 31, 2004 with Volume 1 and Number 1 with the name “Korean Journal of Spine,” and renamed as

“Neurospine” in March issue, [2018](#).

1)

Shweikeh F, Amadio JP, Arnell M, et al. [Robotics](#) and the spine: a review of current and ongoing applications. *Neurosurg Focus*. 2014;36:E10.

2)

Griffith SL, Shelokov AP, Büttner-Janz K, LeMaire JP, Zeegers WS. A multicenter retrospective study of the clinical results of the LINK SB Charité intervertebral prosthesis. The initial European experience. *Spine*. 1994;19(16):1842- 1849.

3)

Sandhu FA, Dowlati E, Garica R. Lumbar Arthroplasty: Past, Present, and Future. *Neurosurgery*. 2020 Feb 1;86(2):155-169. doi: 10.1093/neuros/nyz439. PubMed PMID: 31724719.

4)

Lunsford LD, Kassam A, Chang YF. Survey of United States neurosurgical residency program directors. *Neurosurgery*. 2004;54:239-245.

From:

<https://www.operativeneurology.com/> - **Operative Neurosurgery**

Permanent link:

<https://www.operativeneurology.com/doku.php?id=2004>

Last update: **2021/04/06 12:10**

