

1953

1952-1954

Cerebral revascularization dates back to **1953** when Conley performed the first reported **saphenous vein graft** (SVG) bypass of the **cervical internal carotid artery** (ICA) for a tumor of the neck ¹⁾

The **Harrington rods** was developed in **1953** by Paul Harrington, a professor of orthopedic surgery at Baylor College of Medicine in **Houston**, Texas.

Harrington rods were intended to provide a means to reduce the curvature and to provide more stability to a spinal fusion. Before the Harrington rod was invented, scoliosis patients had their spines fused without any instrumentation to support it; such fusions required many months in plaster casts, and large curvatures could progress despite fusion.

The PLIF **procedure** was first described in **1944** by Briggs and Milligan ²⁾ who used laminectomy bone chips in the disc space as interbody graft. In **1946**, Jaslow ³⁾ modified the technique by positioning an excised portion of the spinous process within the intervertebral space. It was not until **1953** when Cloward ⁴⁾ described his technique, which used impacted blocks of iliac crest autograft that the popularity of PLIF surgery increased. Although technically more difficult than posterolateral fusion techniques (i.e., intertransverse fusion in which bone graft spans between the transverse processes), the PLIF **procedure** was found to have the advantage of substantially increased fusion rates, often in excess of 85%. Despite the increased fusion rate, this technique was fraught with complications related to blood loss, dural/neural injury, graft extrusion, and arachnoiditis ⁵⁾.

Luxol fast blue stain, abbreviated LFB stain or simply LFB, is a commonly used stain to observe **myelin** under **light microscopy**, created by Heinrich Klüver and Elizabeth Barrera in 1953.

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CONLEY JJ. Free **autogenous vein graft** to the internal and common **carotid** arteries in the treatment of **tumors** of the **neck**. Ann Surg. 1953 Feb;137(2):205-14. doi: 10.1097/00000658-195302000-00009. PMID: 13017520; PMCID: PMC1802458.

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Briggs H, Milligan P. Chip fusion of the low back following exploration of the spinal canal. J Bone Joint Surg. 1944;26:125-130.

³⁾

JASLOW IA. Intercorporeal bone graft in spinal fusion after disc removal. Surg Gynecol Obstet. 1946 Feb;82:215-8. PubMed PMID: 21011710.

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CLOWARD RB. The treatment of ruptured lumbar intervertebral discs by vertebral body fusion. I. Indications, operative technique, after care. J Neurosurg. 1953 Mar;10(2):154-68. PubMed PMID: 13035484.

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Cole CD, McCall TD, Schmidt MH, Dailey AT. Comparison of low back fusion techniques: transforaminal

lumbar interbody fusion (TLIF) or posterior lumbar interbody fusion (PLIF) approaches. Curr Rev Musculoskelet Med. 2009 Jun;2(2):118-26. doi: 10.1007/s12178-009-9053-8. Epub 2009 Apr 29. PubMed PMID: 19468868; PubMed Central PMCID: PMC2697340.

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