

Directional lead

[Deep brain stimulation](#) of different targets has been shown to drastically improve symptoms of a variety of neurological conditions. However, the occurrence of disabling side effects may limit the ability to deliver adequate amounts of current necessary to reach the maximal benefit. Computed models have suggested that reduction in [electrode](#) size and the ability to provide directional [lead](#) stimulation could increase the efficacy of such therapies ¹⁾.

Directional leads for [deep brain stimulation](#): Opportunities and challenges ²⁾.

¹⁾

Pollo C, Kaelin-Lang A, Oertel MF, Stieglitz L, Taub E, Fuhr P, Lozano AM, Raabe A, Schüpbach M. Directional deep brain stimulation: an intraoperative double-blind pilot study. *Brain*. 2014 Jul;137(Pt 7):2015-26. doi: 10.1093/brain/awu102. Epub 2014 May 19. PubMed PMID: 24844728.

²⁾

Schüpbach WMM, Chabardes S, Matthies C, Pollo C, Steigerwald F, Timmermann L, Visser Vandewalle V, Volkmann J, Schuurman PR. Directional leads for deep brain stimulation: Opportunities and challenges. *Mov Disord*. 2017 Aug 26. doi: 10.1002/mds.27096. [Epub ahead of print] PubMed PMID: 28843016.

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