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Deep Brain Stimulation (now 9400 citations)

1. Arbab T, Bais MN, Figue M, Bergfeld IO, Schuurman PR, van den Munckhof P, Willuhn I, Denys D. **Intracranial electrophysiological biomarkers of compulsivity in obsessive-compulsive disorder.** Nat Ment Health 2025 3(8):889-898 [PubMed](#) [Free Full Text](#)
2. Avenali M, Artusi CA, Cilia R, Giannini G, Cuconato G, Albanese A, Golfrè Andreasi N, Antenucci P, Antonini A, Avanzino L, Baldelli L, Bentivoglio AR, Bove F, Bozzali M, Calandra-Buonaura G, Cani I, Carelli V, Cavallieri F, Cocco A, Cogiamanian F, Colucci F, Cortelli P, De Biase A, Di Biasio F, Di Fonzo A, D'Onofrio V, Eleopra R, Elia AE, Fioravanti V, Genovese D, Guerra A, Imarisio A, Ledda C, Liccari M, Longo C, Lopiano L, Malaguti MC, Malito R, Marnesi F, Marino S, Minardi R, Mitrović P, Monfrini E, Pacchetti C, Piano C, Rispoli V, Rizzone MG, Romito LM, Sambati L, Sensi M, Sorbera C, Spagnolo F, Tassorelli C, Valentino F, Valzania F, Zangaglia R, Zibetti M; Italian PARKNET Study Group; Valente EM. **Long-term motor and cognitive outcome of deep brain stimulation in patients with Parkinson disease with a *gba1* pathogenic variant.** Neurology 2025 105(9):e214036 [PubMed](#) [Free Full Text](#)
3. Balachandar A, Verhey LH, Mithani K, Suresh H, Kerr EN, Breitbart SC, Kisteroff F, Huynh M, Fasano A, Ebrahimi-Fakhari D, Yang K, Ruppert-Gomez M, Stone SS, Northam W, Gadgil N, Raskin JS, Weil A, Hadjinicolaou A, Meijer IA, Iorio-Morin C, Gorodetsky C, Ibrahim GM. **Surgical complications of deep brain stimulation in children across targets and indications: multicenter analysis of the CHILD-DBS registry.** Neurology 2025 105(9):e214201 [PubMed](#)
4. Balachandar A, Vogt LM, Mithani K, Coleman SC, Ebdon M, Leblanc-Miller A, Breitbart S, Fasano A, Gorodetsky C, Ibrahim GM. **Status dystonicus is a distinct state characterized by pallidal beta-band activity.** Nat Commun 2025 16(1):9352 [PubMed](#) [Free Full Text](#)
5. Banks SA, Baker MR, Flanagan EP, Permezel FE, Jackson LM, Tobin WO, Kantarci OH, Keegan BM, Pittock SJ, Miller KJ, Klassen BT. **Tremor and disability outcomes following deep brain stimulation for multiple sclerosis-associated tremor.** Mult Scler 2025 31(13):1583-1590 [PubMed](#)
6. Belsky MA, Ma Y, Halpern CH, Erickson-DiRenzo E. **Perception of vocal tremor after deep brain stimulation in varying speech contexts.** J Voice 2025 epub [PubMed](#)
7. Bentley JH, Liu TB, Gandhi AD, Mansourian K, Paulo DL, Katlowitz KA, Momin F, St Romain CP, Naqvi ZU, Soubra S, Hamre T, Kabotyanski KE, Whitson K, Diab N, Abou

- Issa D, Devara D, Hasen M, Shofty B, Banks G, Provenza NR, Storch EA, Goodman WK, Sheth SA. **Management of a multidisciplinary surgical obsessive-compulsive disorder practice.** Neurosurgery 2025 epub [PubMed](#)
8. Borgheai SB, Howell B, Isbaine F, Noecker AM, Opri E, Risk BB, McIntyre CC, Miocinovic S. **Evaluation of DBS computational modeling methodologies using in-vivo electrophysiology in Parkinson's disease.** Brain Stimul 2025 18(6):1996-2007 [PubMed Free Full Text](#)
 9. Bove F, Genovese D, De Biase A, Albanese A, Antonini A, Artusi CA, Avanzino L, Avenali M, Baldelli L, Calandra-Buonaura G, Cani I, Casasoli N, Cavallieri F, Cilia R, Cocco A, Colucci F, Di Biasio F, D'Onofrio V, Eleopra R, Fioravanti V, Giannini G, Golfre' Andreasi N, Guerra A, Imbalzano G, Izzo A, Ledda C, Liccari M, Lopiano L, Malaguti MC, Minardi R, Mitrotti P, Romito LM, Valente EM, Valzania F, Zangaglia R, Calabresi P, Piano C, Bentivoglio AR; Italian PARKNET Study. **Unraveling the role of GBA1 genotype in axial signs response to subthalamic deep brain stimulation.** NPJ Parkinsons Dis 2025 11(1):296 [PubMed Free Full Text](#)
 10. Damiani A, Nouduri S, Ho JC, Salazar S, Jegou A, Chen JJ, Reedy E, Ikegaya N, Sarma S, Aung T, Pirondini E, Gonzalez-Martinez JA. **Thalamocortical hodology to personalize electrical stimulation for focal epilepsy.** Nat Commun 2025 16(1):9209 [PubMed Free Full Text](#)
 11. Dan R, Zhang H, Bai J. **Closed-loop control of epilepsy based on reinforcement learning.** Int J Neural Syst 2025 epub [PubMed Free Full Text](#)
 12. Degirmenci Y, Akram H, Viswas D, Ludvic Z, Marwan H, Patricia L. **A case of tongue twisting during screening of STN DBS for Parkinson's disease: a unique form of pyramidal tract activation.** Turk Neurosurg 2024 epub [PubMed Free Full Text](#)
 13. Del Regno C, Ermanis G, Lettieri C, Bernardini A, Pellitteri G, Belgrado E, Betto E, Gigli GL, De Monte D, Scanni MD, Mucchiut M, Damante G, Valente M, Janes F. **RAB39B related parkinsonism in an Italian family: a unique use of advanced therapies.** Ann Clin Transl Neurol 2025 epub [PubMed Free Full Text](#)
 14. Deli A, Duchet B, He S, Huang Y, Martin S, Sanrangmat N, Divanbeighizand AP, Zamora M, Tan H, Vyazovskiy VV, Denison T, Green AL. **Sleep stage can be selectively modulated through targeted deep brain stimulation of brainstem circuits.** Brain Stimul 2025 18(6):1931-1934 [PubMed Free Full Text](#)
 15. Elbayomy A, Kehoe N, Hage S, Shakir M, Youn Y, Buckley N, Bunch K, Ammanuel SG, El Hage J, Hassan Z, Lake W, Ahmed A. **Shifts in epilepsy treatment: a 12-year review of surgical approaches and outcomes in lesional and nonlesional epilepsy.** J Neurosurg 2025 epub 1-14 [PubMed](#)
 16. Farokhniaee A, Amiri S. **Computational analysis of two novel deep brain stimulation pulsing patterns on a thalamocortical network model of Parkinson's disease.** Front Netw Physiol 2025 5:1674935 [PubMed Free Full Text](#)
 17. Ge S, Wang X, Chen L, Li N, Li Y, Cai Y, Wang X, Li W, Su M, Zheng Z, Li J, Wang X, Qiu C, Wang J, Liu T, Qu Y, Gao G. **Effects of deep brain stimulation of the nucleus accumbens and anterior limb of the internal capsule on heroin addiction: over five years of long-term follow-up in a prospective open-label pilot study.** Transl Psychiatry 2025 15(1):415 [PubMed Free Full Text](#)
 18. Gerster M, Waterstraat G, Binns TS, Darcy N, Wiest C, Köhler RM, Vanhoecke J, West TO, Sure M, Todorov D, Radzinski L, Habets J, Busch JL, Feldmann LK, Krause P,

- Faust K, Schneider GH, Ashkan K, Pereira E, Akram H, Zrinzo L, Blankertz B, Villringer A, Tan H, Hirschmann J, Kühn AA, Florin E, Schnitzler A, Oswal A, Litvak V, Neumann WJ, Curio G, Nikulin V. **Beyond beta rhythms: subthalamic aperiodic broadband power scales with Parkinson's disease severity-a cross-sectional multicentre study.** EBioMedicine 2025 epub [PubMed Free Full Text](#)
19. Giacobbe P, Rizvi SJ, Ceniti AK, Tomlinson G, Elias GJB, Germann J, Styra R, Lozano AM, Kennedy SH. **Deep brain stimulation to the subgenual cingulate gyrus for treatment-resistant depression: a randomized controlled trial and 2-year long-term follow-up.** Can J Psychiatry 2025 epub [PubMed Free Full Text](#)
 20. Gupta A, Boissenin A, Vardalakis N, Taillade M, Orignac H, Biendon N, Dovero S, Nguyen TH, Sadoun A, Wagner FB. **High-accuracy electrode implantation in deep brain structures using multi-camera neuronavigation in non-human primates.** J Neural Eng 2025 22(5) [PubMed Free Full Text](#)
 21. Hu T, Xie H, Shan M, Sang L, Yang B, Zhang Q, Gao D, Jiao Y, Guo Q, Li S, Wang Y, Du X, Yang A, Meng F, Zhang J, Zhang K, Zhang H. **Long-term efficacy of anterior nucleus of the thalamus deep brain stimulation in drug-resistant epilepsy: a 5-year multicenter study.** BMC Med 2025 23(1):615 [PubMed Free Full Text](#)
 22. Iskin SA, Elias GJB, Naheed A, Pinto J, Omere U, Kennedy SH, Loh A, Ajala A, Santyr B, Boutet A, Lozano AM, Germann J. **Capturing brain response patterns to subcallosal cingulate deep brain stimulation using cycling fMRI: a proof-of concept study.** Can J Psychiatry 2025 epub [PubMed Free Full Text](#)
 23. Jadapalli JK, Olson J, Irwin ZT, Nakhmani A, Hurt CP, Gonzalez CL, Wade MH, Guthrie BL, Walker HC. **Sensorimotor cortex high frequency oscillations characterize motor symptom severity during deep brain stimulation surgery for Parkinson's disease.** Ann Neurol 2025 epub [PubMed](#)
 24. Jiman AA, Attar ET. **Modulation of brain activity and tremor severity by NeuroEpo in Parkinson's patients with varying tremor amplitudes.** Front Neurol 2025 16:1637184 [PubMed Free Full Text](#)
 25. Kapoor I, Vijetha G, Prabhakar H. **An unusual case of cardiac arrest during deep brain stimulation procedure!** J Anaesthesiol Clin Pharmacol 2025 41(4):740-741 [PubMed Free Full Text](#)
 26. Kim MS, Chung SJ. **Lived experiences, depression, and quality of life in Korean women with Parkinson disease after deep brain stimulation: a multimethod study.** Womens Health Nurs 2025 31(3):241-253 [PubMed Free Full Text](#)
 27. Kimata AR, Chan M, Zheng B, Lauro PM, Pagnier G, Davis JE, Akbar U, Davachi L, Asaad WF. **Effect of fornix stimulation on acute memory encoding.** J Neurophysiol 2025 epub [PubMed Free Full Text](#)
 28. Kocabıcak E, Sen S, Uzun H, Ozturk S, Yildiz MO, Tuzun E, Taskin O, Aygun D, Temel Y. **Peripheral cytokine levels in patients with idiopathic Parkinson's disease undergoing subthalamic nucleus deep brain stimulation.** Sci Rep 2025 15(1):36719 [PubMed Free Full Text](#)
 29. Koop MM, Rosenfeldt AB, Berki V, Bazyk A, Davidson S, Malan NS, Nagel S, Walter BL, Liao JY, Alberts JL. **A novel methodological approach to understanding the cortical and subcortical effects of aerobic exercise in Parkinson's disease.** Front Hum Neurosci 2025 19:1657049 [PubMed Free Full Text](#)

30. Lange F, Guarin DL, Mosert S, Karrasch B, Roothans J, Weigl B, Navratil P, Daniels C, Odorfer T, Brandt G, Mahlknecht P, Krauss JK, Runge J, Kühn AA, Deuschl G, Volkmann J, Peach R, Reich MM. **Bradykinesia induced by pallidal neurostimulation in dystonia: clinical risk factors and anatomical mapping.** NPJ Parkinsons Dis 2025 11(1):308 [PubMed](#) [Free Full Text](#)
31. Li J, Zhou J, He B, Papaneri AB, Kobzar NP, Yeh AC, Zhang Y, Cui G. **Differential synaptic depression mediates the therapeutic effect of deep brain stimulation.** Nat Neurosci 2025 epub [PubMedFree Full Text](#)
32. Liang L, Zhao J, Wang H, Chen L, Shi Q, Yang X, Ma H, Zhu Y, Li Z, Huang W. **The microlesion effect is associated with global cognitive impairment and predicts motor outcomes after subthalamic deep brain stimulation in Parkinson's disease.** J Neurol 2025 272(11):708 [PubMed](#)
33. Lumsden DE, Ramiah R, Smallbone T, Singleton W, Amin S, Perides S, Lumsdon G, Ashida R, Ellenbogen J, Ashkan K, Selway R, Kaminska M, Hasegawa H, Lin JP. **Deep brain stimulation in the management of movement disorders in childhood: a UK-wide cross-sectional study.** Arch Dis Child 2025 epub [PubMed](#)
34. Mattila H, Satomaa AL, Lehtimäki K, Hyttinen J, Himanen SL, Peltola J. **A method for analyzing the ERP associated with high frequency ANT DBS offset.** Comput Struct Biotechnol J 2025 28:419-431 [PubMed](#) [Free Full Text](#)
35. Mellace D, Mameli F, Ruggiero F, Cogiamanian F, Borellini L, De Sandi A, Marfoli A, Zirone E, Mailland E, Pirola E, Ampollini AM, Remore LG, Locatelli M, Priori A, Barbieri S, Ferrucci R. **Triple perspective: assessing deep brain stimulation outcomes in Parkinson's disease.** BMC Neurol 2025 25(1):426 [PubMed](#) [Free Full Text](#)
36. Mikroulis A, Lasica A, Filip P, Bakstein E, Novak D. **Patient-specific and interpretable deep brain stimulation optimisation using MRI and clinical review data.** Front Neurosci 2025 19:1661987 [PubMed](#) [Free Full Text](#)
37. Molinari VDM, Sure M, Spooner RK, Bahnners BH, Schnitzler A, Florin E, Hartmann CJ. **Subthalamic beta peak power ratio as an electrophysiological marker for deep brain stimulation contact selection in Parkinson's disease.** Neurol Res Pract 2025 7(1):81 [PubMed](#) [Free Full Text](#)
38. Morris LA, Suzuki H, Lee S, Jin Z, Chen BB, Marin A, Huey ED, Gazes Y, Heilbronner SR, Le Heron CJ, Vanegas-Arroyave N. **Apathy, effort-based decisions and brain integrity in Alzheimer's and Parkinson's diseases.** Brain 2025 epub awaf393 [PubMed](#) [Free Full Text](#)
39. Navratil P, Abbas G, Elmas A, Eldebakey HFE, Schmidt AS, Odekerken VJ, de Bie RMA, Zhang C, Kimura K, Peach R, Roothans J, Volkmann J, Lange FL, Reich MM. **Probabilistic mapping of the antiparkinsonian effects of pallidal deep brain stimulation.** Brain Commun 2025 7(5):fcaf374 [PubMed](#) [Free Full Text](#)
40. Nonaka T, Horisawa S, Kim K, Murakami M, Nishitani M, Kawamata T, Taira T. **Optimal stimulation sites and long-term efficacy of pallidal deep brain stimulation for tardive dystonia.** J Mov Disord 2025 epub [PubMed](#) [Free Full Text](#)
41. Nuzzo T, Carrillo F, Serra M, Gentile C, Di Maio A, Pizzella A, Pietracupa S, Modugno N, Errico F, Esposito T, Usiello A. **Deep brain stimulation rescues the homeostasis disruption of circulating D- and L-amino acids level in men with Parkinson's disease.** Neurobiol Dis 2025 216:107150 [PubMed](#) [Free Full Text](#)

42. Radmard S, Yang K, Ebrahimi-Fakhari D. **Response to GPi-DBS in a case of EIF2AK2-associated early-onset generalized dystonia.** *Mov Disord Clin Pract* 2025 epub [PubMed](#)
43. Rassoulou F, Sharma A, Steina A, Butz M, Hartmann CJ, Bahners BH, Vesper J, Schnitzler A, Hirschmann J. **Electrophysiological signatures predict the therapeutic window of deep brain stimulation electrode contacts.** *NPJ Digit Med* 2025 8(1):635 [PubMed](#) [Free Full Text](#)
44. Remore LG, Fiore G, Pirola E, Borellini L, Mameli F, Ruggiero F, Zirone E, Ferrucci R, Cogiamanian F, Mailland E, Ampollini AM, Bertani GA, Scagliotti E, Navone SE, Marfia G, Isaías IU, Locatelli M. **Perilead edema in deep brain stimulation: long-term outcomes and etiologic correlates.** *Neuromodulation* 2025 epub [PubMed](#) [Free Full Text](#)
45. Sakakura K, Pearce J, Pertsch N, Karri V, Pu Q, Mehta F, Patel N, Sani S. **Intraoperative motor stimulation during asleep subthalamic nucleus deep brain stimulation predicts postoperative motor side effects.** *Oper Neurosurg* 2025 epub [PubMed](#)
46. Sakakura K, Pu Q, Pertsch N, Sani S. **An exploratory study on surgical planning of single trajectory deep brain stimulation of ventral intermediate nucleus and subthalamic nucleus.** *Clin Neurol Neurosurg* 2025 259:109213 [PubMed](#)
47. Segura-Amil A, Choi KS, Olson S, de Bruin J, Song HN, Nguyen TAK, Waters AC, Smith AH, Mayberg HS, Kopell BH, Figuee M. **Deep brain stimulation for obsessive-compulsive disorder: evolution of tractography-based targeting.** *J Neurosurg* 2025 epub 1-12 [PubMed](#)
48. Sewell IJ, Kumar R, Nyman AJ, Gopinath G, Sivadas S, Baskaran A, Giacobbe P, Nestor SM, Davidson B, Lipsman N, Hamani C, Rabin JS. **Beyond symptom scales: patient-centered insights into deep brain stimulation outcomes in treatment-refractory post-traumatic stress disorder.** *J Affect Disord* 2025 393(Pt B):120390 [PubMed](#)
49. Shin H, Scheitler KM, Rojas Cabrera JM, Goyal A, Boesche JB, Rusheen AE, Yuen J, Hanna B, Karanovic U, Vetteson-Trutza S, Tang-Cabrera J, Tsai ST, Elgohary M, Hussein S, Wei S, Yuan L, McIntosh M, Rech A, Reyes M, Dennis WO, Van Buren TJ, Eaker DR, Cameron G, Hainy ME, Berghuis BJ, Kimble CJ, Bennet KE, Sharaf B, Oesterle TS, Chen X, Bao Z, Sung J, Jang DP, Blaha CD, Oh Y, Lee KH. **A multimodal platform for real-time neurochemical and electrophysiologic monitoring for intraoperative neurosurgical applications.** *Biosens Bioelectron* 2025 293:118151 [PubMed](#)
50. Su M, Qu L, Wang X, Wang B, Li N, Wang X, Zheng Z. **Evaluation of the therapeutic effect of adaptive deep brain stimulation on motor symptoms and sleep disturbances in Parkinson's disease and construction of a response prediction model.** *Front Neurol* 2025 16:1580273 [PubMed](#) [Free Full Text](#)
51. Thompson JA, Radcliffe EM, Ojemann S, Kramer DR, David-Gerecht P, Case M, Zarns C, Holt-Becker A, Raike RS, Baumgartner AJ, Kern DS. **Unipolar recordings of beta power inform initial programming of the subthalamic nucleus in Parkinson's disease.** *Parkinsonism Relat Disord* 2025 141:108078 [PubMed](#)

52. Umemura A, Oyama G, Nishioka K, Hattori N. **Another microlesion effect after STN-DBS for Parkinson's disease.** *Mov Disord Clin Pract* 2025 epub [PubMed Free Full Text](#)
53. Umemura A, Oyama G, Shimo Y, Iwamuro H, Nakajima A, Shimizu M, Hatano T, Kondo A, Hattori N. **Absence of STN neuronal activity during MER in DBS surgery: diagnostic and clinical implications.** *Stereotact Funct Neurosurg* 2025 epub 1-20 [PubMed Free Full Text](#)
54. Van Bogaert T, Peeters J, Boogers A, Vandenberghe W, De Vloo P, Nuttin B, McLaughlin M. **Evoked resonant neural activity reveals an electrophysiologic sweet spot for directional subthalamic nucleus deep brain stimulation in Parkinson's disease.** *Neuromodulation* 2025 epub [PubMed](#)
55. Wang F, Cao F, An N, Yang J, Wang Y, Xiang M, Wu Q, Li W. **Artifact suppression in OPM-MEG for Parkinson's disease patients with DBS implants using oblique projection-based extended homogeneous field correction.** *IEEE J Biomed Health Inform* 2025 epub [PubMed](#)
56. Westenberger A, Verdura E, Radefeldt M, Sanderson LE, Tripolszki K, Marcé-Grau A, Cazorro-Gutiérrez A, Nikoncuk A, Herzog R, Al-Ali R, Ferreira M, Almeida LS, Silveira TRD, Khan S, Maia RD, Klivényi P, Salamon A, Baltaci V, Subasioglu A, Prada-Arismendy J, Čuturilo G, Loens S, Tadic V, Maystadt I, Karadurmus D, Leube B, De Winter J, Monticelli A, De Waele L, Baets J, Vinkšiel M, Maver A, Tschopp L, Ziegler G, Sanguinetti A, Lohmann K, Barakat TS, Bauer P, Perez-Dueñas B, Bertoli-Avella AM. **Expanding the genetic and phenotypic spectrum of DYT-VPS16: the importance of splice-site variants.** *Mov Disord* 2025 epub [PubMed Free Full Text](#)
57. Wiggerts Y, Beudel M, Bot M, van den Munckhof P, de Bie RMA, Schuurman R. **Anatomical group-level studies of the volume of tissue activated by deep brain stimulation in Parkinson's disease: a model for targeting?** *Stereotact Funct Neurosurg* 2025 epub 1-16 [PubMed Free Full Text](#)
58. Wilken M, Granda L, Cruz I, Rossi M, Cerquetti D, Merello M. **The role of basal ganglia theta oscillations in predicting the onset of levodopa-induced dyskinesias.** *Mov Disord* 2025 epub [PubMed](#)
59. Ye K, Cao Y, Wu Y, Ning C, Wang D, Guo H, Wang Y, Zhang Y, Qiu X, Li N, Wu G, Sun B, Lv X. **Therapeutic deep brain stimulation targeting BNST-NAc circuit driven large-scale brain networks in treatment-resistant depression.** *Transl Psychiatry* 2025 15(1):442 [PubMed Free Full Text](#)
60. Zhang K, Gu X, Xiang Y, Zhao G. **Analytical assessment of perioperative complications in neurosurgical procedures performed in the sitting position.** *Ann Ital Chir* 2025 96(10):1373-1381 [PubMedFree Full Text](#)
61. Zheng W, Lan L, Xie X, Huang M, Xiao H. **Correlation between brain structural features and early motor outcomes from deep brain stimulation in patients with Parkinson disease.** *Quant Imaging Med Surg* 2025 15(10):9751-9764 [PubMed Free Full Text](#)
62. Zhou JC, Gong S, Wu WD, Liu FX, Zhao X, Han Y, Hao S, Tao YQ. **Preparation and evaluation of the effect of cerebellar interposed nucleus deep brain stimulation on the permanent middle cerebral artery occlusion C57BL/6 mouse models.** *Chinese. Zhonghua Yi Xue Za Zhi* 2025 105(39):3569-3575 [PubMed Free Full Text](#)

63. Zimet M, Rajabi F, Moehlis J. **Magnitude-constrained optimal chaotic desynchronization of neural populations.** Front Netw Physiol 2025 5:1646391 [PubMed](#) [Free Full Text](#)
64. Zirh A, Kenangil G, Samanci Y. **Improved oxygen saturation after deep brain stimulation in Parkinson's disease.** Neurosurg Rev 2025 48(1):744 [PubMed](#)

Dorsal Root Ganglion Stimulation (now 315 citations)

1. Blazek G, Mamun N, Javed S. **Comparative effectiveness of dorsal root ganglion and spinal cord stimulation in chemotherapy-induced peripheral neuropathy: a single-center retrospective case series.** Neuromodulation 2025 epub [PubMed](#)
2. Viktor K, Emil I, Alexei T, Andrew P. **Migration of a dorsal root ganglion stimulation electrode into the mediastinum: a clinical case study.** Pain Pract 2025 25(8):e70086 [PubMed](#)

Gastric Electrical Stimulation (now 536 citations)

1. Castillo-Leon E, Hawa KE, Usman A, Sanchez RE, Puri NB, Vaz KKH, Yacob D, Haque MR, Van Diest AK, Diefenbach KA, Di Lorenzo C, Lu PL. **Impact of gastric electrical stimulation on gastrointestinal and non-gastrointestinal somatic symptoms.** Neurogastroenterol Motil 2025 e70165 [PubMed](#)
2. Litzenberg K, Basham R, Naing LY, Mathur P, WoldeSELLASSIE F, Landes S, Cowings P, Toscano W, Rashed H, Abell T. **Nausea, autonomic function, and the astronauts: concepts, findings, and applications to GIMD patient care.** Dig Dis Sci 2025 epub [PubMed](#)

Meta-Analysis (still 60 citations)

Peripheral Nerve Stimulation (now 972 citations)

1. Abouelnasr AA, Hany M. **Bilateral posterior tibial nerve stimulation as a neuromodulation strategy for obstructed defecation: a randomized controlled trial.** Tech Coloproctol 2025 29(1):178 [PubMed](#) [Free Full Text](#)
2. Andrassy B, Harris M, Mukhdomi T. **Complications associated with use of peripheral nerve stimulators for pain management.** Clin J Pain 2025 epub [PubMed](#)
3. Galletta V, Bonato M, Parazzini M, Chiaramello E, Fiocchi S. **In silico analysis of concentration and spatial distribution effects of magnetoelectric nanoparticles on peripheral nerve activation.** Bioelectron Med 2025 11(1):25 [PubMed](#) [Free Full Text](#)
4. Lu H, Shao Q, Guo J, Huang Z, Cao YJ, Li F, Li W, Xiong W, Li KP, Feng W. **Cortical-multifidus paired associative stimulation for improving motor function in patients with chronic low back pain: study protocol for a randomised controlled trial.** BMJ Open 2025 15(10):e105876 [PubMed](#) [Free Full Text](#)
5. Massé-Alarie H, Pouliot J, Provencher J, Cherif A, Desmons M, Cancino EE, Chiou SY. **The impact of electrical vestibular stimulation on the onset of erector**

spinae muscles activation elicited by a postural and a voluntary task. Exp Brain Res 2025 243(12):243 [PubMed](#)

6. McCormick ZL, Lester DD, DePalma MJ, Gilmore CA, Li S, Jameson JB, Desai MJ, Weaver TE, Lad SP, Davidoff SJ, Trainor DM, Amirdelfan K, Engle MP, Deer TR, Lee TS, Vetri F, Bindal M, Tornero-Bold MA, Nasser MN, Cohen SP, Clark WH, McGee MJ, Boggs JW. **Comparison of percutaneous 60-day peripheral nerve stimulation of the lumbar medial branches to usual care with standard interventional management for chronic low back pain-a multicenter pragmatic randomized controlled trial (RESET).** Pain Med 2025 epub pna147 [PubMed](#) [Free Full Text](#)
7. Meng L, Terolli P, Hu X. **Reduced muscle fatigue using continuous subthreshold kilohertz stimulation of peripheral nerves.** IEEE Trans Biomed Eng 2025 epub [PubMed](#)
8. Nakashima H, Yoshida G, Kanemura T, Ito S, Segi N, Ouchida J, Tsushima M, Tomita H, Morishita K, Imagama S. **Preliminary observations on neuromuscular pathways of the lower extremities: findings from intraoperative nerve root stimulation.** Nagoya J Med Sci 2025 87(3):538-545 [PubMed](#) [Free Full Text](#)
9. Odonkor CA, Hirani S, Bohacek S, Pokuri S, Chow RM, Abd-Elseyed A. **A prospective multidimensional assessment of the impact of payer type, insurance delays, psychological and clinical domains on response to 60-day peripheral nerve stimulation: 6-month outcomes.** Pain Med 2025 epub pna151 [PubMed](#)
10. Szylak R, Pridgeon M, Marshall A, Ruscoe E, Srinivasaiah R, Osman-Farah J, Bhargava D. **In-human demonstration of high-frequency reversible electrical motor nerve block compared to selective neurectomy - a proof-of-concept study.** Am J Phys Med Rehabil 2025 epub [PubMed](#)
11. Tanaka S, Tomio R, Yoshida S, Akimoto J. **Specificity of transcranial motor evoked potential monitoring was significantly improved by compound muscle action potential normalization after peripheral nerve stimulation.** J Neurosurg Sci 2025 epub [PubMed](#)
12. Tsai SY, Schreiber JA, Iordanou J, Ton ST, Imam A, Powers BE, Walter JS, Oudega M, Kartje GL, Nockels RP. **Sciatic nerve electrical stimulation enhances locomotor recovery in rats following spinal cord contusion.** Neurosci Insights 2025 epub [PubMed](#) [Free Full Text](#)

Sacral Nerve Stimulation (now 1331 citations)

1. Atallah M, Zisman A, Eigner E, Fazaa N, Nsair A, Shabataev V. **Sacral neuromodulator surgery: is there an ideal candidate?** Cureus 2025 17(9):e93256 [PubMed](#) [Free Full Text](#)
2. Ball MA, Cheng MY, Mbassa R, Meeks W, Galen E, Van Kuiken ME. **Trends in utilization of sacral neuromodulation for overactive bladder: insight from the AUA AQUA registry.** Urol Pract 2025 epub [PubMed](#)
3. Barth BB, Grill WM. **Burst-patterned stimulation restores colonic motility in preclinical models.** Sci Transl Med 2025 17(823):eadu4615 [PubMed](#)
4. Ding Y, Wang D, Wang P, Cheng F, Mou Y, Zhou Y, Xin P, Niu Z, Wang J. **Stratified dynamic analysis reveals postoperative recovery trajectories of sacral**

neuromodulation in pediatric neurogenic bladder. Front Pediatr 2025 13:1582311 [PubMed Free Full Text](#)

5. Dreyfuss LD, Wang L, Nik-Ahd F, Shatkin-Margolis A, Covinsky K, John Boscardin W, Suskind AM. **Clinician- and geographic-level variation in utilization of sacral neuromodulation and onabotulinumtoxin injections among Medicare beneficiaries with overactive bladder.** Urology 2025 epub [PubMed](#)
6. Stalder SA, van der Lely S, Knüpfer S, Anderson CE, Leitner L, Mehnert U, Tornic J, Zipser CM, Kessler TM, Liechti MD. **Lower urinary tract sensory assessments in patients with neurogenic lower urinary tract dysfunction undergoing sacral neuromodulation.** Clin Neurophysiol 2025 180:2111003 [PubMed Free Full Text](#)

Spinal Cord Stimulation (now 3672 citations)

1. Abd-Elseyed A, Gilligan C. **Objective data from patients with persistent spinal pain syndrome type II implanted with spinal cord stimulator.** Pain Pract 2025 25(8):e70093 [PubMed Free Full Text](#)
2. Bassil K, Jongsma K. **To explant or not to explant neural implants: an empirical study into deliberations of Dutch research ethics committees.** Neuroethics 2025 18(3):45 [PubMed Free Full Text](#)
3. Beucler N, Tournebise H, Fawaz R, Fontaine D, Desse N. **Spinal cord stimulation for painful neuropathic cauda equina syndrome following ballistic penetrating lumbar spine injury: proof-of-concept case.** Mil Med 2025 epub usaf486 [PubMed](#)
4. Blazek G, Mamun N, Javed S. **Comparative effectiveness of dorsal root ganglion and spinal cord stimulation in chemotherapy-induced peripheral neuropathy: a single-center retrospective case series.** Neuromodulation 2025 epub [PubMed](#)
5. Cruz-Gordillo PG, Gragg AL, Ross DA. **Minimally invasive spinal cord stimulator paddle electrode placement: technique and complications in a single surgeon cohort.** Oper Neurosurg 2025 epub [PubMed](#)
6. Drainville R, Bonizzato M, Burchielli D, Guay-Hottin R, Sheasby A, Martinez M. **Combining cortical and spinal stimulation maximizes the improvement of gait after spinal cord injury.** iScience 2025 28(10):113580 [PubMed Free Full Text](#)
7. Futch BG, Venkatraman V, Smith A, Spell AW, Seas A, Warman PI, Woo J, Hon K, Bullock S, Thoreson C, Liu B, Lee HJ, Chow SC, Lindsay T, Lott D, Murphy DLK, Davis SW, Peterchev AV, Song AW, Zein M, Peterson AC, Nosé BD, Parente B, Abd- El-Barr MM, Turner DA, Lad SP. **Study protocol: single-blinded, controlled, clinical trial evaluating the feasibility of spinal cord stimulation for improving neuropathic pain and rehabilitation outcomes in patients with thoracic spinal cord injury.** Neurosurg Pract 2025 6(2):e00135 [PubMed Free Full Text](#)
8. Gómez-González MA, Cordero-Tous N, Sánchez-Corral C, Lechuga-Carrasco B, Sánchez-García MA, Gálvez-Mateos R, Olivares-Granados G. **Comparison between surgical and percutaneous paddles in spinal cord stimulation for chronic neuropathic pain.** J Clin Med 2025 14(19):7013 [PubMed Free Full Text](#)
9. Goree JH, Nijhuis H, Smith GL, Petersen EA, Pope JE, Antony AB, Vu CM, Sayed D, Lam CM, Latif U, Costandi SJ, Verrills P, Venkatesan L, Ge W, Gould I, Kallewaard JW. **First objective evidence characterizing differences in cervical and thoracic spinal**

- cord neurophysiology using ECAP-controlled closed-loop technology.** Pain Ther 2025 epub [PubMed Free Full Text](#)
10. Gupta M, Reinert A, West CO, Province-Azalde R, Bradley K. **Extreme pulse dosing of 10 kHz spinal cord stimulation: how low can you go?** Front Pain Res (Lausanne) 2025 6:1633424 [PubMed Free Full Text](#)
 11. Hasoon J, Orlando D, Chavez V, Viswanath O. **Neuromodulation for multifocal pain: successful use of spinal cord stimulation in lumbar spine pain and chronic pancreatitis.** Orthop Rev (Pavia) 2025 17:145861 [PubMed Free Full Text](#)
 12. Henney AE, Frank B, Riley DR, Anson M, Burgess J, Hernadez G, Lip GYH, Malik RA, Tesfaye S, Cuthbertson DJ, Alam U. **Spinal cord stimulation for the treatment of painful diabetic neuropathy and risk of major adverse cardiovascular events, mortality, amputation, infection and suicide: a retrospective cohort study.** EClinicalMedicine 2025 89:103489 [PubMed Free Full Text](#)
 13. Ikemura A, Shiroki D, Ohga S, Hattori T, Sugiyama Y, Kito Y, Mizogami M, Matsubara T, Iida H. **Pain reduction through combined spinal cord stimulation and exercise therapy after spinal extradural arachnoid cystectomy: a case report.** JA Clin Rep 2025 11(1):55 [PubMed Free Full Text](#)
 14. Kim SJ, Dougherty PM, Abdi S, Javed S. **Quantitative evaluation of tonic spinal cord stimulation in treating chemotherapy-induced peripheral neuropathy: a single-center prospective cohort exploratory pilot study.** Neuromodulation 2025 epub [PubMed](#)
 15. Lu F, Li J, Zhong J, Li X, Song L, Ye L, Xiao H. **Comparative efficacy of short-term spinal cord stimulation and pulsed radiofrequency in zoster- associated pain: a stratified database study.** Front Neurol 2025 16:1649163 [PubMed Free Full Text](#)
 16. Luikku AJ, Martikainen A, Ikäheimo TM, Nissen M, von Und Zu Fraunberg M, Jyrkkänen HK, Huttunen J. **Mortality outcomes after spinal cord stimulation: a 10-year survival analysis of 330 patients with chronic neuropathic pain.** Neurosurgery 2025 epub [PubMed Free Full Text](#)
 17. Meier K, Risør BW, Poulsen DM, Sørensen JCH, Tayyari N. **Societal cost analysis of spinal cord stimulation in chronic pain patients: a Danish register-based study with 3 years follow-up.** Eur J Pain 2025 29(10):e70160 [PubMed](#)
 18. Ragel BT, Raslan AM. **Surgical technique: placement of thoracic spinal cord stimulator paddle leads.** Pain Pract 2025 25(8):e70087 [PubMed](#)
 19. Sasaki M, Date H, Ito H. **Spinal cord stimulation therapy for phantom limb pain in the left lower extremity 30 years after onset.** Cureus 2025 17(9):e92430 [PubMed Free Full Text](#)
 20. Yan D, Guo Z, Liu H, Wang X, Liang F, Jie J, Yin M. **Comparison of activation and selectivity in dorsal and ventral epidural spinal cord stimulation in rats: a computational modeling study.** Sci Rep 2025 15(1):35711 [PubMed Free Full Text](#)

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The Neuromodulation Foundation, Inc.
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