



NEWSLETTER #128 June 2024 See [ABOUT](#) WIKISTIM

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In April 183 people clicked a link in our newsletter. Last month, this number **jumped to 297**. In April, we asked again for donations to no avail. We are not "development" professionals, but it occurred to us that perhaps the long list of donors at the end of these monthly emails made our readers think that WIKISTIM has enough support. Unfortunately this isn't true, and we are operating on fumes and hope. Although we have enjoyed widespread and loyal support, we experienced a blow this year when a long-time major sponsor acted on an unfounded and incorrect rumor presented as fact (about the number of people who use WIKISTIM) and decided to cut off support. We continue to seek grant support from other sponsors and would be extremely grateful if those of you who rely on this newsletter to stay up-to-date in the field would send in a donation. A full list of financial donors over time is available [here](#).

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Glossary Update

The [glossary](#) that appears on our WIKISTIM.org website is undergoing an update. We first published this glossary in [2007 in Pain Medicine](#) and put it online when we created WIKISTIM.org. In order to begin the process of keeping the glossary current, we (The Neuromodulation Foundation) worked with volunteer experts representing the Institute of Neuromodulation and the International Neuromodulation Society (INS) and published an updated version on-line and in print in the journal [Neuromodulation in](#)

[2021](#). WIKISTIM provides [a link](#) from which this version of the glossary can be downloaded free of charge.

Since its inception, we have planned to update and maintain the glossary. To this end, project members have met twice at biennial INS meetings, most recently in Vancouver on May 15. Leaders of all three sponsoring organizations were joined by authors of the original publication and new contributors, 12 overall, to review plans for a reformatted, updated online glossary. Notably, this will expand beyond the space constraints of the print edition, but the scope, inclusions/exclusion criteria, and target audience will remain substantially the same.

We are circulating detailed proposed revisions, with a view to publishing a new version free of charge on WIKISTIM.org in the coming months. The existing print edition will remain available for free download.

Increase in the Number of Subscribers

WIKISTIM now has 1843 subscribers. Thank you for spreading the word!

Citations Added From Search on June 7, 2024

Whenever possible, we provide free full-text links. For journals where a full-text PDF downloads immediately when a page is opened or has a “watermark,” we link to the link rather than to the PDF. (If necessary, please click “View Entire Message” to see all of the citation lists in this newsletter.)

We only list correction citations if the error was substantial. For small changes, such as a missing initial in an author's name, we simply update the WIKISTIM database.

Deep Brain Stimulation (now 8351 citations)

1. Borgheai SB, Opri E, Isbaine F, Cole E, Deligani RJ, Laxpati N, Risk BB, Willie JT, Gross RE, Yong NA, McIntyre CC, Miocinovic S. **Neural pathway activation in the subthalamic region depends on stimulation polarity.** medRxiv [preprint before peer review] 2024 epub [PubMed Free Full Text](#)
2. Cagle JN, de Araujo T, Johnson KA, Yu J, Fany L, Sarmiento FP, Little S, Okun MS, Wong JK, de Hemptinne C. **Chronic intracranial recordings in the globus pallidus reveal circadian rhythms in Parkinson's disease.** Nat Commun 2024 15(1):4602 [PubMed Free Full Text](#)
3. Damianova M, Gancheva D, Gabrovski K, Karazapryanov P, Milenova Y, Popivanov ID, Minkin K. **Is PDQ-39 a reliable measure of quality of life of patients at advanced stages of Parkinson's disease considered for deep brain stimulation.** Heliyon 2024 10(10):e31325 [PubMed Free Full Text](#)

4. Dib A, Polo G, Danaila T, Laurencin C, Prange S, Thobois S. **Falsely reassuring impedance in a patient with deep brain stimulation: a case report.** J Neurol 2024 epub [PubMed](#)
5. Fang H, Berman S, Wang Y, Yang Y. **Robust adaptive deep brain stimulation control of in-silico non-stationary Parkinsonian neural oscillatory dynamics.** J Neural Eng epub [PubMed](#) [Free Full Text](#)
6. Farooqi H, Vitek JL, Escobar Sanabria D. **Deep brain stimulation pulse sequences to optimally modulate frequency-specific neural activity.** J Neural Eng 2024 epub [PubMed](#) [Free Full Text](#)
7. Fauser M, Payonk JP, Weber H, Statz M, Winter C, Hadar R, Appali R, van Rienen U, Brandt MD, Storch A. **Subthalamic nucleus but not entopeduncular nucleus deep brain stimulation enhances neurogenesis in the SVZ-olfactory bulb system of Parkinsonian rats.** Front Cell Neurosci 2024 18:1396780 [PubMed](#)[Free Full Text](#)
8. Fenoy AJ, Chu ZD, Ritter RJ 3rd, Conner CR, Kralik SF. **Evaluating functional connectivity differences between DBS ON/OFF states in essential tremor.** Neurotherapeutics 2024 epub e00375 [PubMed](#) [Free Full Text](#)
9. Filip P, Lasica A, Uhrová T, Mana J, Růžička F, Keller J, Mueller K, Burdová K, Kiakou D, Jech R. **Mixed anxiety-depressive disorder in Parkinson's disease associated with worse resting state functional response to deep brain stimulation of subthalamic nucleus.** Heliyon 2024 10(10):e30698 [PubMed](#) [Free Full Text](#)
10. Filip P, Mana J, Lasica A, Keller J, Urgošík D, May J, Mueller K, Jech R, Bezdicek O, Růžička F. **Structural and microstructural predictors of cognitive decline in deep brain stimulation of subthalamic nucleus in Parkinson's disease.** Neuroimage Clin 2024 42:103617 [PubMed](#) [Free Full Text](#)
11. Fitzgerald PB, Hoy K, Richardson KE, Gainsford K, Segrave R, Herring SE, Daskalakis ZJ, Bittar RG. **No consistent antidepressant effects of deep brain stimulation of the bed nucleus of the stria terminalis.** Brain Sci 2024 14(5):499 [PubMed](#) [Free Full Text](#)
12. Flores FJ, Dalla Betta I, Tauber J, Schreier D, Stephen EP, Wilson MA, Brown EN. **Spike-wave discharges during low-current thalamic deep brain stimulation in mice.** bioRxiv [preprint before peer review] 2024 epub [PubMed](#) [Free Full Text](#)
13. Gao Y, Wang S, Wang A, Fan S, Ge Y, Wang H, Gao D, Wang J, Mao Z, Zhao H, Zhang H, Shi L, Liu H, Zhu G, Yang A, Bai Y, Zhang X, Liu C, Wang Q, Li R, Liang K, Brown KG, Cui Z, Han C, Zhang J, Meng F. **Comparison of children and adults in deep brain stimulation for Tourette syndrome: a large-scale multicenter study of 102 cases with long-term follow-up.** BMC Med 2024 22(1):218 [PubMed](#) [Free Full Text](#)
14. Ha J, Lee D, Ahn JH, Cho JW, Lee JI, Fasano A, Park SJ, Youn J. **Deep brain stimulation in patients with cardiac implantable electronic devices: pulse width pitfalls.** Mov Disord Clin Pract 2024 epub [PubMed](#)[Free Full Text](#)

15. Hou JF, Nayeem MOG, Caplan KA, Ruesch EA, Caban-Murillo A, Criado-Hidalgo E, Ornellas SB, Williams B, Pearce AA, Dagdeviren HE, Surets M, White JA, Shapiro MG, Wang F, Ramirez S, Dagdeviren C. **An implantable piezoelectric ultrasound stimulator (ImPULS) for deep brain activation.** Nat Commun 2024 15(1):4601 [PubMed](#) [Free Full Text](#)
16. Jia Q, Duan Y, Liu Y, Liu J, Luo J, Song Y, Xu Z, Zhang K, Shan J, Mo F, Wang M, Wang Y, Cai X. **High-performance bidirectional microelectrode array for assessing sevoflurane anesthesia effects and in situ electrical stimulation in deep brain regions.** ACS Sens 2024 epub [PubMed](#)
17. Kandadai RM, Kola S, Alugolu R, Borgohain R. **Caregiver burden in Parkinson's disease patients post-deep brain stimulation: a neglected aspect.** Ann Indian Acad Neurol 2024 27(2):116-117 [PubMed](#) [Free Full Text](#)
18. Kaufmann E, Peltola J, Colon AJ, Lehtimäki K, Majtanik M, Mai JK, Bóné B, Bentes C, Coenen V, Gil-Nagel A, Goncalves-Ferreira AJ, Ryvlin P, Taylor R, Brionne TC, Gielen F, Song S, Boon P; MORE study group. **Long-term evaluation of anterior thalamic deep brain stimulation for epilepsy in the European MORE registry.** Epilepsia 2024 epub [PubMed](#) [Free Full Text](#)
19. Kaur G, Ganey Y, Rodriguez W, Tseng S, Orozco L, Chand P. **Deep brain stimulation for medication refractory tremor in Leber optic neuropathy plus syndrome.** Cureus 2024 16(4):e58255 [PubMed](#) [Free Full Text](#)
20. Kellogg MA, Ernst LD, Spencer DC, Datta P, Klein E, Bhati MT, Shivacharan RS, Nho YH, Barbosa DAN, Halpern CH, Raslan A. **Dual treatment of refractory focal epilepsy and obsessive-compulsive disorder with intracranial responsive neurostimulation.** Neurol Clin Pract 2024 14(4):e200318 [PubMed](#)
21. Levinson S, Miller M, Iftekhhar A, Justo M, Arriola D, Wei W, Hazany S, Avecillas-Chasin JM, Kuhn TP, Horn A, Bari AA. **A structural connectivity atlas of limbic brainstem nuclei.** Front Neuroimaging 2024 3:1405806. Erratum 2023 1:1009399 [PubMed](#) [Free Full Text](#)
22. Lin S, Li N, Shu Y, Wang T, Huang P, Pan Y, Sun B, Zhang C, Li D, Wu Y. **Superior cerebellar peduncle deep brain stimulation for cerebral palsy.** J Neurosurg 2024 epub 1-11 [PubMed](#) [Free Full Text](#)
23. Liu J, Chen S, Chen J, Wang B, Zhang Q, Xiao L, Zhang D, Cai X. **Structural brain connectivity guided optimal contact selection for STN-DBS.** World Neurosurg 2024 epub [PubMed](#)
24. Loehrer PA, Bopp MHA, Dafsari HS, Seltenreich S, Knake S, Nimsky C, Timmermann L, Pedrosa DJ, Belke M. **Microstructure predicts non-motor outcomes following deep brain stimulation in Parkinson's disease.** NPJ Parkinsons Dis 2024 10(1):104 [PubMed](#) [Free Full Text](#)
25. Marano M, Barbieri FR, Sucapane P, Pagano S, Marruzzo D, Di Lazzaro V, Ricciuti R. **Screw bubbling with air embolism, an unusual complication of a frameless deep brain stimulation.** J Neurosurg Sci 2024 epub [PubMed](#)
26. Nasir A, Alam SM, Naeem N. **Gender gap in deep brain stimulation for Parkinson's disease: preliminary results of a retrospective study.** Neurosurg Rev 2024 47(1):218 [PubMed](#)

27. Neimat JS, Bina RW, Koenig SC, Demirors E, Guida R, Burke R, Melodia T, Jimenez J. **A novel closed-loop electrical brain stimulation device featuring wireless low-energy ultrasound power and communication.** Neuromodulation 2024 epub [PubMed](#)
28. Nguyen MX, Brown AM, Lin T, Sillitoe RV, Gill JS. **Targeting DBS to the centrolateral thalamic nucleus improves movement in a lesion-based model of acquired cerebellar dystonia in mice.** bioRxiv [preprint before peer review] 2024 epub [PubMed](#) [Free Full Text](#)
29. Okoroafor F, Beattie H, Qiang Z, Yianni J. **Fragile X-associated tremor/ataxia syndrome treated with multitarget deep brain stimulation.** BMJ Case Rep 2024 17(5):e259452 [PubMed](#)
30. Patel R, Burroughs L, Higgins A, Zauber SE, Isbaine F, Schneider D, Hohman R, Gupta K. **Bilateral deep brain stimulation of the ventral intermediate nucleus of the thalamus improves objective acoustic measures of essential vocal tremor.** Neurosurgery 2024 epub [PubMed](#)
31. Peeters J, Van Bogaert T, Boogers A, Gransier R, Wouters J, De Vloo P, Vandenberghe W, Barbe MT, Visser-Vandewalle V, Nuttin B, Dembek TA, Mc Laughlin M. **Electrophysiological sweet spot mapping in deep brain stimulation for Parkinson's disease patients.** Brain Stimul 2024 epub [PubMed](#) [Free Full Text](#)
32. Polat S, Erdem M, Çekinmez M. **Comparison of apathy and cognitive symptoms in pre- and postoperative period in deep brain stimulation surgery.** Psychiatry Clin Psychopharmacol 2023 33(4):238-245 [PubMed](#) [Free Full Text](#)
33. Rajamani N, Friedrich H, Butenko K, Dembek T, Lange F, Navrátil P, Zvarova P, Hollunder B, de Bie RMA, Odekerken VJJ, Volkmann J, Xu X, Ling Z, Yao C, Ritter P, Neumann WJ, Skandalakis GP, Komaitis S, Kalyvas A, Koutsarnakis C, Stranjalis G, Barbe M, Milanese V, Fox MD, Kühn AA, Middlebrooks E, Li N, Reich M, Neudorfer C, Horn A. **Deep brain stimulation of symptom-specific networks in Parkinson's disease.** Nat Commun 2024 15(1):4662 [PubMed](#) [Free Full Text](#)
34. Remore LG, Rifi Z, Tsolaki E, Ward MJ, Wei W, Tolossa M, Locatelli M, Bari AA. **Ventral intermediate nucleus of the thalamus, dentatorubrothalamic tract, and caudal zona incerta: stimulation of which structure provides ongoing tremor control in patients with essential tremor?** Neurosurg Focus 2024 56(6):E15 [PubMed](#) [Free Full Text](#)
35. Sandoval-Bonilla BA, Vargas MFC, Nuñez MA, Parpaley Y, Codeiro JG, Cosio JF, de la Torre RAP, Garcia-Muñoz L. **Adequate control of seizures in a case of lead migration and neuromodulation of the posterior Sylvian junction: a case report.** Surg Neurol Int 2024 15:124 [PubMed](#) [Free Full Text](#)
36. Shah-Zamora D, Karl J, Pearce J 3rd, Verhagen Metman L. **Elimination of STN stimulation-induced dyskinesias with VIM-DBS.** Mov Disord Clin Pract 2024 epub [PubMed](#)
37. Shan M, Mao H, Hu T, Xie H, Ye L, Cheng H. **Deep brain stimulation of the subthalamic nucleus for a patient with drug resistant juvenile myoclonic epilepsy: 1 year follow-up.** Neurol Sci 2024 epub [PubMed](#)

38. Skandalakis GP, Neudorfer C, Payne CA, Bond E, Tavakkoli AD, Barrios-Martinez J, Trutti AC, Koutsarnakis C, Coenen VA, Komaitis S, Hadjipanayis CG, Stranjalis G, Yeh FC, Banihashemi L, Hong J, Lozano AM, Kogan M, Horn A, Evans LT, Kalyvas A. **Establishing connectivity through microdissections of midbrain stimulation-related neural circuits.** Brain 2024 epub awae173 [PubMed Free Full Text](#)
39. Sobstyl M, Kowalska M, Konopko M, Wierzbicka A, Karamon K, Nagańska E. **Deep brain stimulation of the subiculum in the treatment for refractory temporal lobe epilepsy due to unilateral mesial temporal lobe sclerosis.** Epilepsy Behav Rep 2024 27:100677 [PubMed Free Full Text](#)
40. Sorrentino Z, Riklan J, Lloyd G, Lucke-Wold B, Mampre D, Quintin S, Zakare-Fagbamila R, Still M, Chandra V, Foote K, Giasson B, Hilliard J. **Analysis of alpha-synuclein harvested from intra-cranial instruments used in deep brain stimulation surgery for Parkinson's disease.** Res Sq [preprint before peer review] 2024 epub [PubMed Free Full Text](#)
41. Spruijt LE, Mosch A, Hoffmann CFE, van Nieuwkoop C, Tijsterman JD, Zutt R, van der Gaag NA, Contarino MF. **Mycobacterium bovis Infection of a deep brain stimulation system following intravesical bacillus Calmette-Guérin (BCG) instillation.** J Parkinsons Dis 2024 epub [PubMed Free Full Text](#)
42. Steinhardt J, Zittel S, Tadic V, Tronnier V, Moll C, Bäumer T, Münchau A, Rasche D, Brüggemann N. **GPI/GPe borderland— a potential sweet spot for deep brain stimulation for chorea in Huntington's disease?**Neurol Res Pract 2024 6(1):28 [PubMed Free Full Text](#)
43. Suresh H, Mithani K, Warsi N, Ochi A, Otsubo H, Drake JM, Rutka JT, Kerr E, Smith ML, Breitbart S, Yau I, McRae L, Chau V, Weiss S, Jain P, Donner E, Fasano A, Gorodetsky C, Ibrahim GM. **Add-on deep brain stimulation versus continued vagus nerve stimulation for childhood epilepsy (ADVANCE): a partially randomized patient preference trial.** Ann Neurol 2024 epub [PubMed Free Full Text](#)
44. Ujihara M, Kobayashi M, Hirata S, Takabatake K, Wakiya K, Fujimaki T. **Deep brain stimulation leads to long-term improvement of neuropathic tremor due to chronic inflammatory demyelinating polyneuropathy: a case report.** NMC Case Rep J 2024 11:109-112 [PubMed Free Full Text](#)
45. Unadkat P, Vo A, Ma Y, Peng S, Nguyen N, Niethammer M, Tang CC, Dhawan V, Ramdhani R, Fenoy A, Caminiti SP, Perani D, Eidelberg D. **Deep brain stimulation of the subthalamic nucleus for Parkinson's disease: a network imaging marker of the treatment response.** Res Sq [preprint before peer review] 2024 epub [PubMed Free Full Text](#)
46. Vincent KF, Zhang ER, Cho AJ, Kato-Miyabe R, Mallari OG, Moody OA, Obert DP, Park GH, Solt K. **Electrical stimulation of the ventral tegmental area restores consciousness from sevoflurane-, dexmedetomidine-, and fentanyl-induced unconsciousness in rats.** Brain Stimul 2024 17(3):687-697 [PubMed Free Full Text](#)
47. Wang Q, Zhang Y, Xue H, Zeng Y, Lu G, Fan H, Jiang L, Wu J. **Lead-free dual-frequency ultrasound implants for wireless, biphasic deep brain stimulation.** Nat Commun 2024 15(1):4017 [PubMed Free Full Text](#)

48. Wang X, Chen M, Shen Y, Li Y, Li S, Xu Y, Liu Y, Su F, Xin T. **A longitudinal electrophysiological and behavior dataset for PD rat in response to deep brain stimulation.** Sci Data 2024 11(1):500 [PubMedFree Full Text](#)
49. Warren AEL, Butson CR, Hook MP, Dalic LJ, Archer JS, Macdonald-Laurs E, Schaper FLWVJ, Hart LA, Singh H, Johnson L, Bullinger KL, Gross RE, Morrell MJ, Rolston JD. **Targeting thalamocortical circuits for closed-loop stimulation in Lennox-Gastaut syndrome.** Brain Commun 2024 6(3):fcae161 [PubMed Free Full Text](#)
50. Wu Y, Li Y, Li H, Wang T, Huang P, Wu Y, Sun B, Pan Y, Li D. **Prediction of subthalamic stimulation efficacy on isolated dystonia via support vector regression.** Heliyon 2024 10(10):e31475 [PubMed Free Full Text](#)
51. Wu Z, Ren Z, Gao R, Sun K, Sun F, Liu T, Zheng S, Wang W, Zhang G. **Impact of subthalamic nucleus deep brain stimulation at different frequencies on neurogenesis in a rat model of Parkinson's disease.** Heliyon 2024 10(10):e30730 [PubMed Free Full Text](#)
52. Xu M, Hu B, Wang Z, Zhu L, Lin J, Wang D. **Mathematical derivation and mechanism analysis of beta oscillations in a cortex-pallidum model.** Cogn Neurodyn 2024 18(3):1359-1378 [PubMed](#)
53. Yuzkan S, Hasimoglu O, Balsak S, Mutlu S, Karagulle M, Kose F, Altinkaya A, Tugcu B, Kocak B. **Utility of diffusion tensor imaging and generalized q-sampling imaging for predicting short-term clinical effect of deep brain stimulation in Parkinson's disease.** Acta Neurochir (Wien) 2024 166(1):217 [PubMed Free Full Text](#)
54. Zhang F, Mithani K, Breitbart S, Yan H, Fasano A, Ibrahim GM, Gorodetsky C. **Actigraph-based quantification of sleep in children with dystonia undergoing deep brain stimulation.** Neurosurg Focus 2024 56(6):E17 [PubMed Free Full Text](#)
55. Zhang Q, Wang Y, Wang F, Jiang D, Song Y, Yang L, Zhang M, Wang Y, Ruan Y, Fang J, Fei F. **Septal stimulation attenuates hippocampal seizure with subregion specificity.** Epilepsia Open 2024 epub [PubMed Free Full Text](#)
56. Zhao Z, Ren Z, Hu Y, Yu K, Yin F, Li J, Zhang G. **Long-term follow-up of pallidal deep brain stimulation for craniocervical dystonia: is the globus pallidus internus the best target?** Neurosurg Focus 2024 56(6):E16 [PubMed Free Full Text](#)

Dorsal Root Ganglion Stimulation (now 277 citations)

1. Fiedler AM, Piedade GS, Assumpção de Monaco B, Taylor RR, Williams MD, Danny JL, Minor A, Cordeiro JG. **Synergistic neuromodulation therapy for persistent spinal pain: a proof of-concept trial on the use of spinal cord and dorsal root ganglion stimulation.** Acta Neurol Belg 2024 epub [PubMed](#)
2. Tabatabaei P, Kakas P, Bredemo L, Salomonsson J. **Low-frequency dorsal root stimulation is effective for various pain etiologies and pain locations.** Pain Pract 2024 epub [PubMed Free Full Text](#)

3. Vallejo R, Fishman MA, Shah B, Kim P, Benyamin R, Vetri F, Tilley DM, Cedeno DL. **Targeted nerve root stimulation alleviates intractable chronic limb pain associated with complex regional pain syndrome - a prospective multi-center feasibility study.** Pain Physician 2024 27(4):213-222 [PubMed](#) [Free Full Text](#)

Gastric Electrical Stimulation (now 528 citations)

1. Bills S, Shine A, Williams JC, Mathur P, Kedar A, Daniels M, Abell TL. **Difference in cyclic versus non-cyclic symptom patterns in patients with the symptoms of gastroparesis undergoing bioelectric therapy.** Dig Dis Sci 2024 69(5):1722-1730 [PubMed](#)
2. Cassidy DJ, Gerull W, Zike VM, Awad MM. **Clinical outcomes of a large, prospective series of gastric electrical stimulation patients using a multidisciplinary protocol.** J Am Coll Surg 2024 epub [PubMed](#)

Peripheral Nerve Stimulation (now 798 citations)

1. Davids M, Vendramini L, Klein V, Ferris N, Guerin B, Wald LL. **Experimental validation of a PNS-optimized whole-body gradient coil.** Magn Reson Med 2024 epub [PubMed](#)
2. Goree JH, Grant SA, Dickerson DM, Ilfeld BM, Eshraghi Y, Vaid S, Valimahomed AK, Shah JR, Smith GL, Finneran JJ, Shah NN, Guirguis MN, Eckmann MS, Antony AB, Ohlendorf BJ, Gupta M, Gilbert JE, Wongsarnpigoon A, Boggs JW. **Randomized placebo-controlled trial of 60-day percutaneous peripheral nerve stimulation treatment indicates relief of persistent postoperative pain, and improved function after knee replacement.** Neuromodulation 2024 epub [PubMed](#) [Free Full Text](#)
3. Hatheway J, Hersel A, Song J, Engle M, Gutierrez G, Khemlani V, Kapural L, Moore G, Ajakwe R, Trainor D, Hah J, Staats PS, Lynch P, Makous J, Heit G, Kottalgi S, Desai MJ. **Clinical study of a micro-implantable pulse generator for the treatment of peripheral neuropathic pain: 3-month and 6-month results from the COMFORT-randomised controlled trial.** Reg Anesth Pain Med 2024 epub rapm-2023-105264 [PubMed](#)[Free Full Text](#)
4. Leapo LA, Miller ME, Hoyen HA, Pinault GC, Triolo RJ. **Implanted pulse generators in lower extremity neuroprostheses: a 25-year review.** Neuromodulation 2024 epub [PubMed](#)
5. Liu J, Grayden DB, Keast JR, Booth LC, May CN, John SE. **Feasibility of endovascular stimulation of the femoral nerve using a stent-mounted electrode array.** J Neural Eng 2024 21(3) [PubMed](#) [Free Full Text](#)
6. Liu Y, Yan H, Wan C, Xi Q, Huang M, Wang Y, Qi L, Zhang J, Tao S. **Short-term supraorbital nerve stimulation and pain relief for acute and subacute ophthalmic herpetic neuralgia: a randomized controlled crossover trial.** Pain Physician 2024 27(4):203-212 [PubMed](#) [Free Full Text](#)
7. Losanno E, Badi M, Roussinova E, Bogaard A, Delacombaz M, Shokur S, Micera S. **An investigation of manifold-based direct control for a brain-to-**

- body neural bypass.** IEEE Open J Eng Med Biol 2024 5:271-280 [PubMed Free Full Text](#)
8. McGreevy K, McGreevy K. **Peripheral nerve stimulation uses high-frequency electromagnetic technology to power an implanted neurostimulator with a separate receiver for the treatment of chronic pain in the lower extremities.** Pain Physician 2024 27(4):223-227 [PubMed Free Full Text](#)
 9. Membrilla JA, Cuadrado ML, González-García N, Porta-Etessam J, Sánchez-Soblechero A, Lozano Ros A, Gonzalez-Martinez A, Gago-Veiga AB, Quintas S, Rodríguez Vico JS, Jaimes A, Llorente Ayuso L, Roa J, Estebas C, Díaz-de-Terán J. **Clinical predictors of therapeutic failure of occipital nerve stimulation in refractory chronic cluster headache.** Cephalalgia 2024 44(5):3331024241254078 [PubMed Free Full Text](#)

Sacral Nerve Stimulation (now 1230 citations)

1. Biardeau X, Wojtanowski A, Tilborghs S, De Jonckheere J, Vermersch P, De Wachter S. **Acute autonomic nervous system response to direct sacral nerve root stimulation in lower urinary tract dysfunction: a new approach to understand the mechanism of action of sacral nerve modulation.** J Urol 2024 epub [PubMed](#)
2. Ghijssels L, Verbakel I, Bou Kheir G, Van de Putte D, Hervé F, Goessaert AS, Pauwaert K, Beeckman D, Ooms M, Everaert K. **Symptom assessment of candidates for sacral neuromodulation therapy with urologic and colorectal conditions: time for a holistic approach? Results and findings from a prospective single-center study.** Neuromodulation 2024 epub [PubMed](#)
3. Kyaw HY, Krause HG, Goh JTW. **Percutaneous tibial nerve stimulation for the overactive bladder: a single-arm trial.** Aust N Z J Obstet Gynaecol 2024 epub [PubMed](#)
4. Mass-Lindenbaum M, Arévalo-Vega D, Aleuanlli I, Santis-Moya F, Maluenda A, Dines E, Cohen-Vaizer M, Saavedra Á, Raby T, Blumel B, Cuevas R, Pohlhammer S, Alarcon G, Albornoz MA, Pizarro-Berdichevsky J. **Sacral neuromodulation therapy for urinary and defecatory disorders: experience in a Latin American public hospital.** Rev Bras Ginecol Obstet 2024 46:e-rbgo11 [PubMed Free Full Text](#)
5. Werneburg GT, Hettel D, Adler A, Mukherjee SD, Goldman HB, Rackley RR, Zillioux J, Martin SE, Gill BC, Shoskes DA, Miller AW, Vasavada SP. **Sacral neuromodulation device biofilm differs in the absence and presence of infection, harbors antibiotic resistance genes, and is reproducible in vitro.** Neurourol Urodyn 2024 epub [PubMed Free Full Text](#)

Spinal Cord Stimulation (now 3312 citations)

1. Bakare AO, Stephens K, Sanchez KR, Liu V, Zheng L, Goel V, Guan Y, Sivanesan E. **Spinal cord stimulation attenuates paclitaxel-induced gait**

- impairment and mechanical hypersensitivity via peripheral neuroprotective mechanisms in tumor-bearing rats.** Reg Anesth Pain Med 2024 epub rapm-2024-105433 [PubMed](#)
2. Fasse A, Newton T, Liang L, Agbor U, Rowland C, Kuster N, Gaunt RA, Pirondini E, Neufeld E. **A novel CNN-based image segmentation pipeline for individualized feline spinal cord stimulation modeling.** J Neural Eng 2024 epub [PubMed Free Full Text](#)
 3. Fiedler AM, Piedade GS, Assumpção de Monaco B, Taylor RR, Williams MD, Danny JL, Minor A, Cordeiro JG. **Synergistic neuromodulation therapy for persistent spinal pain: a proof-of-concept trial on the use of spinal cord and dorsal root ganglion stimulation.** Acta Neurol Belg 2024 epub [PubMed](#)
 4. Khabbass M, Saleki M, Bretherton B, Baranidharan G. **Improvement in health-related quality of life with spinal cord stimulation in complex regional pain syndrome: a single-center, retrospective study.** Neuromodulation 2024 epub [PubMed](#)
 5. Lee CL, ShakerKhaivadi S, Sitthinamsuwan B, Jirachapitak S, Srirabheebhat P. **Retrograde epidural spinal cord stimulation for the treatment of intractable neuropathic pain following spinal cord and cauda equina injuries: a case report and literature review.** Asian J Neurosurg 2024 19(1):73-78 [PubMed Free Full Text](#)
 6. Leech HX, Provenzano DA, DeRiggi L, Oliver-Smith D. **Delayed development of spinal stenosis at the spinal cord stimulator percutaneous lead entry point: case report and literature review.** Reg Anesth Pain Med 2024 epub rapm-2024-105499 [PubMed](#)
 7. Provenzano DA, Leech J, Bendersky M, Azalde R. **Defining short- and long-term programming requirements in patients treated with 10-kHz spinal cord stimulation.** Neuromodulation 2024 epub [PubMed](#)
 8. Rogers ER, Capogrosso M, Lempka SF. **Biophysics of frequency-dependent variation in paresthesia and pain relief during spinal cord stimulation.** J Neurosci 2024 epub [PubMed](#)
 9. Tito F, Sindaco G, Eggington S, Tacconi E, Borghetti F, Corbo M, Pari G. **Optimizing healthcare expenditure for spinal cord stimulation in Italy: the value of battery longevity improvement and a direct-to-implant approach.** J Health Econ Outcomes Res 2024 11(1):149-156 [PubMed Free Full Text](#)
 10. Yong RJ, Tran OV, McGovern AM, Patil PG, Gilligan CJ. **Long-term reductions in opioid medication use after spinal stimulation: a claims analysis among commercially-insured population.** J Pain Res 2024 17:1773-1784 [PubMed Free Full Text](#)
 11. Zhou L, Chen F, Pan Y, Wang L, Xu L, Huang P, Wang L, Luo N, Li P, Li D, Liu J. **Spinal cord stimulation for postural abnormalities in Parkinson's disease: 1-year prospective pilot study.** BMC Neurol 2024 24(1):167 [PubMed Free Full Text](#)

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