

Spinal Cord Injury

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Exhaled nitric oxide levels are elevated in persons with tetraplegia and comparable to that in mild asthmatics. Radulovic M, Schilero GJ, Wecht JM, La Fountaine M, Rosado-Rivera D, Bauman WA. *Lung.* 2010 Jun;188(3):259-62. Epub 2009 Dec 15.

Bladder Management After Spinal Cord Injury in the United States 1972 to 2005. Cameron AP, Wallner LP, Tate DG, Sarma AV, Rodriguez GM, Clemens JQ. *J Urol.* 2010 May 15. [Epub ahead of print]

Clinical prospects for transplantation of OECs in the repair of brachial and lumbo-sacral plexus injuries: Opening a door. Raisman G, Carlstedt T, Choi D, Li Y. *Exp Neurol.* 2010 May 17. [Epub ahead of print]

Chronic Pain after Spinal Cord Injury: Results of a Long-Term Study. Modirian E, Pirouzi P, Soroush M, Karbalaei-Esmaeili S, Shojaei H, Zamani H. *Pain Med.* 2010 May 19. [Epub ahead of print]

Challenges, concerns and common problems: physiological consequences of spinal cord injury and microgravity. Scott JM, Warburton DE, Williams D, Whelan S, Krassioukov A. *Spinal Cord.* 2010 May 25. [Epub ahead of print]

Recovery of motoneuron and locomotor function after spinal cord injury depends on constitutive activity in 5-HT(2C) receptors. Murray KC, Nakae A, Stephens MJ, Rank M, D'Amico J, Harvey PJ, Li X, Harris RL, Ballou EW, Anelli R, Heckman CJ, Mashimo T, Vavrek R, Sanelli L, Gorassini MA, Bennett DJ, Fouad K. *Nat Med.* 2010 Jun;16(6):694-700. Epub 2010 May 30.

Occurrence and predictors of pressure ulcers during primary in-patient spinal cord injury rehabilitation. Verschueren JH, Post MW, de Groot S, van der Woude LH, van Asbeck FW, Rol M. *Spinal Cord.* 2010 Jun 8. [Epub ahead of print]

Patient preferences for next generation neural prostheses to restore bladder function. Sanders PM, Ijzerman MJ, Roach MJ, Gustafson KJ. *Spinal Cord.* 2010 Jun 8. [Epub ahead of print]

Slope analysis of somatosensory evoked potentials in spinal cord injury for detecting contusion injury and focal demyelination. Agrawal G, Sherman D, Maybhate A, Gorelik M, Kerr DA, Thakor NV, All AH. *J Clin Neurosci.* 2010 Jun 8. [Epub ahead of print] b 2009 Nov 3.

Demographic characteristics after traumatic and non-traumatic spinal cord injury: a retrospective comparison study. Cosar SN, Yemisci OU, Oztop P, Cetin N, Sarifakioglu B, Yalbuzdag SA, Ustaomer K, Karatas M. *Spinal Cord.* 2010 May 4.

<http://www.ncbi.nlm.nih.gov/pubmed/20440301>

A systematic review of pharmacologic treatments of pain after spinal cord injury. Teasell RW, Mehta S, Aubut JA, Foulon B, Wolfe DL, Hsieh JT, Townson AF, Short C; Spinal Cord Injury Rehabilitation Evidence Research Team. Arch Phys Med Rehabil. 2010 May;91(5):816-31.

<http://www.ncbi.nlm.nih.gov/pubmed/20434623>

A randomized, double-blinded, crossover pilot study assessing the effect of nabilone on spasticity in persons with spinal cord injury. Pooyania S, Ethans K, Szturm T, Casey A, Perry D. Arch Phys Med Rehabil. 2010 May;91(5):703-7.

<http://www.ncbi.nlm.nih.gov/pubmed/20434606>

Positive effect of balance training with visual feedback on standing balance abilities in people with incomplete spinal cord injury. Sayenko DG, Alekhina MI, Masani K, Vette AH, Obata H, Popovic MR, Nakazawa K. Spinal Cord. 2010 Apr 20.

<http://www.ncbi.nlm.nih.gov/pubmed/20404833>

Ankle motor skill is intact in spinal cord injury, unlike stroke: implications for rehabilitation. van Hedel HJ, Wirth B, Curt A. Neurology. 2010 Apr 20;74(16):1271-8.

<http://www.ncbi.nlm.nih.gov/pubmed/20404308>

SCIRehab: a model for rehabilitation research using comprehensive person, process and outcome data. Whiteneck G, Gassaway J. Disabil Rehabil. 2010 Apr 14.

<http://www.ncbi.nlm.nih.gov/pubmed/20392171>

Spontaneous motor rhythms of the back and legs in a patient with a complete spinal cord transection. Nadeau S, Jacquemin G, Fournier C, Lamarre Y, Rossignol S. Neurorehabil Neural Repair. 2010 May;24(4):377-83. Epub 2009 Dec 17.

<http://www.ncbi.nlm.nih.gov/pubmed/20019383>

A systematic review of the evidence supporting a role for vasopressor support in acute SCI. Ploumis A, Yadlapalli N, Fehlings MG, Kwon BK, Vaccaro AR. Spinal Cord. 2010 May;48(5):356-62. Epub 2009 Nov 24.

<http://www.ncbi.nlm.nih.gov/pubmed/19935758>

Outcome after incomplete spinal cord injury: central cord versus Brown-Séquard syndrome. Wirz M, Zörner B, Rupp R, Dietz V. Spinal Cord. 2010 May;48(5):407-14. Epub 2009 Nov 10.

<http://www.ncbi.nlm.nih.gov/pubmed/19901956>

Using the Spinal Cord Independence Measure III to measure functional recovery in a post-acute spinal cord injury program. Ackerman P, Morrison SA, McDowell S, Vazquez L. Spinal Cord. 2010 May;48(5):380-7. Epub 2009 Nov 3.

<http://www.ncbi.nlm.nih.gov/pubmed/19884897>

Assessment of disability in patients with acute traumatic spinal cord injury: A systematic review of the literature. Furlan JC, Noonan V, Singh A, Fehlings M. J Neurotrauma. 2010 Mar 31.

[Epub ahead of print]

<http://www.liebertonline.com/doi/abs/10.1089/neu.2009.1148>

Stepping with an ankle foot orthosis re-examined: A mechanical perspective for clinical decision making. Nair PM, Rooney KL, Kautz SA, Behrman AL. Clin Biomech (Bristol, Avon). 2010 Mar 31. [Epub ahead of print]

[http://www.clinbiomech.com/article/S0268-0033\(10\)00064-1/abstract](http://www.clinbiomech.com/article/S0268-0033(10)00064-1/abstract)

Shoulder joint kinetics during wheelchair propulsion on a treadmill at two different speeds in spinal cord injury patients. Gil-Agudo A, Del Ama-Espinosa A, Pérez-Rizo E, Pérez-Nombela S, Crespo-Ruiz B. Spinal Cord. 2010 Apr;48(4):290-6

<http://www.biomedsearch.com/nih/Shoulder-joint-kinetics-during-wheelchair/19773798.html>

ICF Core Sets for individuals with spinal cord injury in the early post-acute context. Kirchberger I, Cieza A, Biering-Sørensen F, Baumberger M, Charlifue S, Post MW, Campbell R, Kovindha A, Ring H, Sinnott A, Kostanjsek N, Stucki G. Spinal Cord. 2010 Apr;48(4):297-304.

<http://www.nature.com/sc/journal/v48/n4/abs/sc2009128a.html>

ICF Core Sets for individuals with spinal cord injury in the long-term context. Cieza A, Kirchberger I, Biering-Sørensen F, Baumberger M, Charlifue S, Post MW, Campbell R, Kovindha A, Ring H, Sinnott A, Kostanjsek N, Stucki G. Spinal Cord. 2010 Apr;48(4):305-12

<http://www.nature.com/sc/journal/v48/n4/abs/sc2009183a.html>

Task-specificity vs. ceiling effect: Step-training in shallow water after spinal cord injury. Keurzi J, Brown EH, Shum-Siu A, Siu A, Burke D, Morehouse J, Smith RR, Magnuson DS. Exp Neurol. 2010 Mar 17. [Epub ahead of print]

<http://www.ncbi.nlm.nih.gov/pubmed/20302862>

Bone Marrow Stromal Cell Transplantation for Treatment of Sub-acute Spinal Cord Injury in the Rat. Ide C, Nakai Y, Nakano N, Seo TB, Yamada Y, Endo K, Noda T, Saito F, Suzuki Y, Fukushima M, Nakatani T. Brain Res. 2010 Mar 19. [Epub ahead of print]

<http://www.ncbi.nlm.nih.gov/pubmed/20307513>

A Novel Classification System for Traumatic Central Cord Syndrome: The Central Cord Injury Scale (CCIS). Hohl JB, Lee JY, Horton JA, Rihn JA. Spine (Phila Pa 1976). 2010 Mar 11. [Epub ahead of print]

http://journals.lww.com/spinejournal/Abstract/publishahead/A_Novel_Classification_System_for_Traumatic.99691.aspx

Novel and direct access to the human locomotor spinal circuitry. Gerasimenko Y, Gorodnichev R, Machueva E, Pivovarova E, Semyenov D, Savochin A, Roy RR, Edgerton VR. J Neurosci. 2010 Mar 10;30(10):3700-8.

<http://www.jneurosci.org/cgi/content/abstract/30/10/3700>

Assessment of postural muscle strength in sitting: reliability of measures obtained with hand-held dynamometry in individuals with spinal cord injury. Larson CA, Tezak WD, Malley MS, Thornton W. J Neurol Phys Ther. 2010 Mar;34(1):24-31.

http://journals.lww.com/jnpt/Abstract/2010/03000/Assessment_of_Postural_Muscle_Strength_in_Sitting_.6.aspx

Down-regulation of the potassium-chloride cotransporter KCC2 contributes to spasticity after spinal cord injury. Boulenguez P, Liabeuf S, Bos R, Bras H, Jean-Xavier C, Brocard C, Stil A, Darbon P, Cattaert D, Delpire E, Marsala M, Vinay L. Nat Med. 2010 Mar;16(3):302-7. Epub 2010 Feb 28.

<http://www.nature.com/nm/journal/v16/n3/abs/nm.2107.html>

Immediate effect of transcutaneous electrical nerve stimulation on spasticity in patients with spinal cord injury. Ping Ho Chung B, Kam Kwan Cheng B. Clin Rehabil. 2010 Mar;24(3):202-10. Epub 2010 Feb 15.

<http://cre.sagepub.com/cgi/content/abstract/24/3/202>

Modified Ashworth scale reliability for measurement of lower extremity spasticity among patients with SCI. Craven BC, Morris AR. Spinal Cord. 2010 Mar;48(3):207-13. Epub 2009 Sep 29

<http://www.nature.com/sc/journal/v48/n3/abs/sc2009107a.html>

Reliability and validity of the International Spinal Cord Injury Basic Pain Data Set items as self-report measures. Jensen MP, Widerström-Noga E, Richards JS, Finnerup NB, Biering-Sørensen F, Cardenas DD. Spinal Cord. 2010 Mar;48(3):230-8. Epub 2009 Sep 29.

<http://www.nature.com/sc/journal/v48/n3/full/sc2009112a.html>

Standing balance assessment in ASIA D paraplegic and tetraplegic participants: concurrent validity of the Berg Balance Scale. Lemay JF, Nadeau S. Spinal Cord. 2010 Mar;48(3):245-50. Epub 2009 Sep 22.

<http://www.nature.com/sc/journal/v48/n3/full/sc2009119a.html>

Clinical Outcomes Using Modest Intravascular Hypothermia After Acute Cervical Spinal Cord Injury. Levi AD, Casella G, Green BA, Dietrich WD, Vanni S, Jagid J, Wang MY. Neurosurgery. 2010 Feb 23. [Epub ahead of print]

http://journals.lww.com/neurosurgery/Abstract/2010/04000/Clinical_Outcomes_Using_Modest_Intravascular.18.aspx

Afferent regulation of leg motor cortex excitability after incomplete spinal cord injury. Roy FD, Yang JF, Gorassini MA. J Neurophysiol. 2010 Feb 24. [Epub ahead of print]
<http://jn.physiology.org/cgi/content/abstract/00903.2009v1>

Behavior of spinal neurons deprived of supraspinal input. Dietz V. Nat Rev Neurol. 2010 Mar;6(3):167-74. Epub 2010 Jan 26.

<http://www.nature.com/nrneurol/journal/v6/n3/abs/nrneurol.2009.227.html>

Plantar cutaneous afferents normalize the reflex modulation patterns during stepping in chronic human spinal cord injury. Knikou M. J Neurophysiol. 2010 Mar;103(3):1304-14. Epub 2009 Dec 30.

<http://jn.physiology.org/cgi/content/abstract/00880.2009v1>