

Publications by Jakob Lorentzen

Scientific peer reviewed publications

- Willerslev-Olsen M, **Lorentzen J**, Røhder K, Ritterband-Rosenbaum A, Justiniano M, Guzzetta A, Lando AV, Jensen AB, Greisen G, Ejlersen S, Pedersen LZ, Andersen B, Liphay Behrend P, Nielsen JB. COpenhagen Neuroplastic TRaining Against Contractures in Toddlers (CONTRACT): protocol of an open-label randomised clinical trial with blinded assessment for prevention of contractures in infants with high risk of cerebral palsy. *BMJ Open*. 2021 Jul 6;11(7):e044674. doi: 10.1136/bmjopen-2020-044674. PMID: 34230015; PMCID: PMC8261878.
- **Lorentzen J**, Frisk RF, Nielsen JB, Barber L. Increased Ankle Plantar Flexor Stiffness Is Associated With Reduced Mechanical Response to Stretch in Adults With CP. *Front Bioeng Biotechnol*. 2021 Mar 25;9:604071. doi: 10.3389/fbioe.2021.604071. PMID: 33842442; PMCID: PMC8026870.
- Svane C, Nielsen JB, **Lorentzen J**. Nonsurgical Treatment Options for Muscle Contractures in Individuals With Neurologic Disorders: A Systematic Review With Meta-Analysis. *Arch Rehabil Res Clin Transl*. 2021 Jan 13;3(1):100104. doi: 10.1016/j.arct.2021.100104. PMID: 33778477; PMCID: PMC7984980.
- Forman CR, Svane C, Kruuse C, Gracies JM, Nielsen JB, **Lorentzen J**. Sustained involuntary muscle activity in cerebral palsy and stroke: same symptom, diverse mechanisms. *Brain Commun*. 2019 Nov 25;1(1):fcz037. doi: 10.1093/braincomms/fcz037. PMID: 33033798; PMCID: PMC7531180.
- Willerslev-Olsen M, **Lorentzen J**, Røhder K, Ritterband-Rosenbaum A, Damgaard Justiniano M, Guzzetta A, Lando AV, Jensen AMB, Greisen G, Ejlersen S, Zacho Greve L, Andersen B, de Liphay Behrend P, Nielsen JB. (COpenhagen Neuroplastic TRaining Against Contractures in Toddlers): Protocol of an open-label randomized clinical trial with blinded assessment for prevention of contractures in infants with high risk of cerebral palsy. Accepted in *BMC Neurology*, May 2021.
- Yamaguchi T, Beck MM, Therkildsen ER, Svane C, Forman C, **Lorentzen J**, Conway BA, Lundbye-Jensen J, Geertsen SS, Nielsen JB. Transcutaneous spinal direct current stimulation increases corticospinal transmission and enhances voluntary motor output in humans. *Physiol Rep*. 2020 Aug;8(16):e14531
- **Lorentzen J**, Nielsen JB. The benefits of strength training in cerebral palsy [published online ahead of print, 2020 Aug 8]. *Dev Med Child Neurol*. 2020;10.1111/dmcn.14625.
- Chen B, Sangari S, **Lorentzen J**, Nielsen JB, Perez MA. Bilateral and asymmetrical contributions of passive and active ankle plantar flexors stiffness to spasticity in humans with spinal cord injury. *J Neurophysiol*. 2020 Sep 1;124(3):973-984. doi: 10.1152/jn.00044.2020. Epub 2020 May 20.

- Nielsen JB, Christensen MS, Farmer SF, **Lorentzen J**. Spastic movement disorder: should we forget hyperexcitable stretch reflexes and start talking about inappropriate prediction of sensory consequences of movement? *Exp Brain Res*. 2020 Aug;238(7-8):1627-1636. doi: 10.1007/s00221-020-05792-0. Epub 2020 May 7.
- **Lorentzen J**, Frisk R, Willerslev-Olsen M, Bouyer L, Farmer SF, Nielsen JB. Gait training facilitates push-off and improves gait symmetry in children with cerebral palsy. *Hum Mov Sci*. 2020 Feb;69:102565. doi: 10.1016/j.humov.2019.102565. Epub 2020 Jan 6.
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- Forman CR, Svane C, Kruuse C, Gracies JM, Nielsen JB, **Lorentzen J**. Sustained involuntary muscle activity in cerebral palsy and stroke: same symptom, diverse mechanisms. *Brain Commun*. 2019 Nov 25;1(1):fcz037. doi: 10.1093/braincomms/fcz037. PMID: 33033798; PMCID: PMC7531180.
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- Frisk RF, **Lorentzen J**, Nielsen JB. Contribution of corticospinal drive to ankle plantar flexor muscle activation during gait in adults with cerebral palsy. *Exp Brain Res*. 2019 Mar 21. doi: 10.1007/s00221-019-05520-3. [Epub ahead of print].
- Hansen SL, **Lorentzen J**, Pedersen LT, Hendrich FL, Jorsal M, Pingel J, Nielsen JB, Kiens B. Suboptimal Nutrition and Low Physical Activity Are Observed Together with Reduced Plasma Brain-Derived Neurotrophic Factor (BDNF) Concentration in Children with Severe Cerebral Palsy (CP). *Nutrients*. 2019 Mar 14;11(3). pii:E620.
- Sgandurra G, Beani E, Inguaggiato E, **Lorentzen J**, Nielsen JB, Cioni G. Effects on Parental Stress of Early Home-Based CareToy Intervention in Low-Risk Preterm Infants. *Neural Plast*. 2019 Jan 22;2019:7517351. doi: 10.1155/2019/7517351. eCollection 2019.
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- Qvist P, Rasmussen L, **Lorentzen J**. [Cross-sectorial cooperation concerning ambulatory care patients]. *Ugeskr Laeger*. 2004 May 3;166(19):1775-8.

Popular scientific publications

- **Jakob Lorentzen** [Author Podcast, June 2020](#) Discussion of the paper '[Wearable electromyography recordings during daily life activities in children with cerebral palsy](#)' in *Dev Med Child Neurol*
<https://onlinelibrary.wiley.com/page/journal/14698749/homepage/podcasts.htm>
- **Jakob Lorentzen**, Fin Biering-Sørensen og Jens Bo Nielsen. Udfordringer ved spasticitet. Populærvideenskabelig artikel til RYK – magasin for rygmarvsskadede. Nr 2 2011
- **Jakob Lorentzen**. Hjernens Plasticitet – giver nye muligheder i genoptræning. Populærvideenskabelig artikel til fagbladet Fysioterapeuten. Nr 9 maj 2009.
- Jens Bo Nielsen og **Jakob Lorentzen**. Spasticitet – hvad er det nu lige det er? Populærvideenskabelig artikel til fagbladet Fysioterapeuten. Nr 4 februar 2009.

Dissertations

- **Lorentzen, J** 2010 , Quantitative evaluation of spasticity, PhD thesis, Department of Exercise and Sport Sciences, University of Copenhagen, Copenhagen.

Contributions to book chapters

- Jens Bo Nielsen, Maria Willerslev-Olsen, **Jakob Lorentzen**, 2018 'Pathophysiology of spasticity' Book chapter in: Neurological rehabilitation: spasticity and contracture in clinical practice and research af Anand Pandyan, Hermie J Hermens and Bernhard A. Conway. CRCPress/ Taylor and Francis Group 2018
- **Jakob Lorentzen**, Maria Willerslev-Olsen, Thomas Sinkjær, Jens Bo Nielsen, 2018. 'Functional problems in spastic patients are not caused by spasticity but by disordered motor control'. Book chapter in: Neurological rehabilitation: spasticity and contracture in clinical practice and research by Anand Pandyan, Hermie J Hermens and Bernhard A. Conway. CRCPress/ Taylor and Francis Group 2018
- Jens Bo Nielsen og **Jakob Lorentzen**, 2012 'Den foranderlige hjerne'. Book chapter in: Lotte Petersen og Tanja Thor Møller (red), Neurorehabilitering i praksis, Gads Forlag, side 65-75.
- Ingrid Poulsen & **Jakob Lorentzen**, 2006, 'Kvalitetsudvikling og sygepleje', Book chapter in: Kristoffersen NJ, Nortved F, Skaug EA (red), Grundlæggende Sygepleje 4, Munksgaard Danmark, s. 132-146.