**Supplementary File 1. Search strategy, by database.**

***Search Strategy for PubMed***

1. "Demyelinating Autoimmune Diseases, CNS"[Mesh]
2. “Central Nervous System Diseases"[Mesh]
3. "Motor Neuron Disease"[Mesh]
4. "Trauma, Nervous System"[Mesh]
5. OR 1-4
6. Eccentric
7. "lengthening contraction"
8. "lengthening exercise"
9. OR 6-8
10. Rehab\*
11. Train\*
12. Exercise
13. Physiother\*
14. OR 10-13
15. 5 AND 9 AND 14

***Search Strategy for PEDro***

1. eccentric ti.ab
2. neurology sub.
3. 1 AND 2

***Search Strategy for EMBASE***

1. 'eccentric muscle contraction'/exp
2. 'eccentric muscle contraction'
3. OR 1-2
4. 'central nervous system disease'/exp
5. 'central nervous system disease'
6. 'motor neuron disease'/exp
7. 'motor neuron disease'
8. 'nervous system injury'/exp
9. 'nervous system injury'
10. 'demyelinating disease'/exp
11. 'demyelinating disease'
12. OR 4-11
13. 'rehabilitation'/exp
14. 'rehabilitation'
15. 'training'/exp
16. 'training'
17. 'exercise'/exp
18. 'exercise'
19. 'physiotherapy'/exp
20. 'physiotherapy'
21. OR 13-20
22. 3 AND 12 AND 21

***Search Strategy for Cochrane***

1. Eccentric
2. MeSH descriptor: [Rehabilitation] explode all trees
3. MeSH descriptor: [Demyelinating Autoimmune Diseases, CNS] explode all trees
4. MeSH descriptor: [Central Nervous System Diseases] explode all trees
5. MeSH descriptor: [Motor Neuron Disease] explode all trees
6. MeSH descriptor: [Trauma, Nervous System] explode all trees
7. OR 2-6
8. MeSH descriptor: [Neurological Rehabilitation] explode all trees
9. Exercise
10. Train\*
11. OR 8-10
12. 1 AND 7 AND 11

***Search Strategy for Scopus***

1. Eccentric
2. Neurological
3. Train\*
4. Exercise
5. Rehab\*
6. OR 3-5
7. 1 AND 2 AND 5

***Search Strategy for Web of Science***

1. ALL=(eccentric)
2. ALL=(exercise)
3. ALL=(training)
4. ALL=(rehabilitation)
5. OR 2-4
6. ALL=(neurological)
7. 1 AND 5 AND 6

***Search Strategy for ClinicalTrials registry***

1. Condition or disease : Neurological Diseases or Conditions
2. Intervention/treatment : eccentric
3. Eligibility criteria : adult/older adult
4. Study type: interventional (clinical trial)
5. 1 AND 2 AND 3 AND 4 AND 5

**Supplementary File 2.** Rationale to reduce comparisons within studies.

|  |  |
| --- | --- |
|  | **Outcomes (tools/scales used for assessment)** |
| **Study** | **Motor Performance** | **Motor impairments** | **Health related quality of life** |
| Lattouf (2021) | **KE strength more+less affected side (1 RM estimated)****Gait (10mWT, 6MWT)** [keep : 10mWT as most recommended tool] | **Spasticity (Modified Ahsworth Scale)**a |  |
| Kadkhodaie (2020) |  | **Hand tremor (frequency, at rest, most symptomatic hand)** |  |
| Dibble (2015) | **KE strength phase ON/FF, more affected side (isometric MVC)** [keep: phase ON]**Gait (6MWT, Functional Gait Aassessment)** [keep : 6MWT as most recommended tool] | **QF CSA (MRI)** | **Health status (PDQ-39)** |
| Clark (2013) | **KE Power (60°/sec,120°/sec,180°/sec, eccentric/concentric)** [keep : 60°/sec eccentric, as most usual velocity used]**Gait (6 Gait cycles, self/max velocity)** [keep : max velocity as most recommended tool] | **RF, VM muscle activity (EMG 60°/sec,120°/sec,180°/sec, eccentric/concentric)** [keep : VM muscle activity as most related to strengthening intervention, -60°/sec] |  |
| Hayes (2011) | **KF/KE, HF/HE, DF, sum of lower-limb muscles strength (MVC, bilateral)** [keep : sum of lower-limb muscles]**Gait (10mWT self/max velocity, 6MWT)** [keep : 10mWT max velocity as most recommended tool] | **Balance (BBS)** | **Risk of Fall (TUG)****Fatigue (FSS)** |
| Dibble (2009) | **KE strength more/less affected side (isometric MVC)** [keep : more affected side]**Gait (10mWT)** |  | **Health status (PDQ-39)** |
| Dibble (2006) | **KE strength more/less affected side (isometric MVC)** [keep : more affected side]**Gait (6MWT)** | **QF, RF, VI, VL, VM Volume (MRI)** [keep : QF volume] | **Risk of Fall (TUG)** |
| Engardt (1995) | **KE strength more affected side (MVC 60°/sec,120°/sec,180°/sec, eccentric/concentric)** [keep : 60°/sec eccentric, as most usual velocity used]**Gait (30 m self/max velocity)** [keep : max velocity as most recommended tool] | **KE/KF muscle activity (EMG 60°/sec,120°/sec,180°/sec, eccentric/concentric)** [keep : 60°/sec eccentric, as most usual velocity used]**Posture rising/sitting down (body weight distribution)** [keep : rising] |  |
| Fernandez-Gonzalo (2016) | **KE+HE strength more/less affected side (isometric and dynamic MVC)** [keep : more affected side, dynamic]**KE+HE power more/less affected side** [keep : more affected side] | **QF Volume (MRI) QF average/maximal CSA (MRI)** [keep: QF average CSA]**Spasticity (Modified Ahsworth Scale)****Balance (BBS)****Spasticity (MAS)** | **Risk of Fall (TUG, talking while walking test)**[keep : TUG as most recommended tool]**Health status (SF-36)** |
| Lee (2013) | **HF/HE strength more affected (dynamic MVC, 90°/sec)** [keep : within-study analysis : HF/HE]**Gait (velocity)** |  | **Risk of Fall (TUG)** |

Abbreviations: BBS: Berg Balance Scale ; CSA: cross sectional area; DF: dorsiflexors; FSS: Fatigue Severity Scale; HE/HF: hip extensors/flexors; KE/KF: knee extensors/flexors; MRI: magnetic resistance imaging; MVC: Maximum Voluntary Contraction; PDQ-39: Parkinson's Disease Questionnaire-39; QF: *quadriceps femoris*; RF: *rectus femoris*; RM: Repetition Maximum; SF-36: Short-From 36 heath survey; TUG: Time Up and Go test; VI: *vastus intermedius*; VL: *vastus lateralis* VM: *vastus medialis*; 6MWT: 6 minutes walk test; 10mWT: 10 metre walk test.

a data provided by the authors

**Supplementary File 3.** Level of evidence according to the GRADE

Six domains are evaluated through GRADE approach: study design, RoB, indirectness, inconsistency, imprecision and publication bias.

Four levels of evidence can be attributed: ‘high’, ‘moderate’, ‘low’, and ‘very low’.

For each outcome, a sequential analysis system was used.

Each outcome was initially as ‘high’ since only RCTs were included in this review.

The QoE was downgraded to ‘moderate’, ‘low’ or ‘very low’ level using the categories:

1. RoB: ≥50% of trials had a RoB 2.0 overall judgment as ‘high’ (-2 levels) or ‘some concerns’ (-1 level);
2. ii) inconsistency: substantial heterogeneity by a visual inspection in the forest plots (I² statistic value >50% meaning substantial heterogeneity) (-1 level);
3. iii) indirectness: substantial differences exist between the target population and samples from RCTs included in this review about the population, the intervention, or the outcomes measured (-1 level);
4. iv) imprecision: a wide confidence interval of the averaged result (-1 level) or based on a total sample size < 800 participants (-1 level);
5. v) publication bias: by visualisation of the funnel plot (-1 level).

GRADE. Handbook for grading the quality of evidence and the strength of recommendations using the GRADE approach. 2013.

Balshem H, Helfand M, Schunemann HJ, et al. GRADE guidelines: 3. Rating the quality of evidence. Journal of clinical epidemiology 2011; 64(4):401-406.

Guyatt G, Oxman AD, Kunz R, et al. Corrigendum to GRADE guidelines 6. Rating the quality of evidence-imprecision. J Clin Epidemiol 2011;64:1283-1293. Journal of clinical epidemiology 2021; 137:265.

**Eccentric resistance training vs comparator on physical function: strength**

The GRADE approach was applied to the pooled analysis of 8 trials investigating the effects of eccentric resistance training compared to a control intervention/usual rehabilitation on the strength of muscles (P<0.0001 ; pooled standardised mean difference: 0.58; 95% CI 0.30 to 0.87).

|  |
| --- |
| **Overall result:** eccentric resistance training may improve muscle strength in neurological populations  |
| **Level of evidence:** Very low certainty We have very little confidence in the effect estimate. The true effect is likely to be substantially different from the estimate of effect. |
| **Risk of Bias** | We downgraded the evidence by one level as 6/8 (75%) of studies in the meta-analysis had a RoB 2.0 judgment as ‘some concerns’ or ‘high’. |
| **Inconsistency of results** | We did not downgrade the evidence due to heterogeneity of included studies as the heterogeneity between trials was not significant (P=0.93, I2=0%).  |
| **Indirectness of evidence** | Since we only included similar studies in terms of population, intervention, comparator and outcome, we did not downgrade the evidence based on this criterion.  |
| **Imprecision** | We downgraded the evidence by two levels due to imprecision as the meta-analysis had n=164<800 participants analysed, and a wide CI interval.  |
| **Publication bias** | We did not downgrade the evidence for publication bias since examination of funnel plot did not suggest serious small study effects.  |

Shading indicates the items that were downgraded.



**Eccentric resistance training vs comparator on muscle function: power**

The GRADE approach was applied to the pooled analysis of 2 trials investigating the effects of eccentric resistance training compared to a control intervention/usual rehabilitation on the power of muscles (P=0.003; pooled standardised mean difference: 0.98; 95% CI 0.32 to 1.63).

|  |
| --- |
| **Overall result:** eccentric resistance training may improve muscle power in neurological populations  |
| **Level of evidence:** Very low certainty We have very little confidence in the effect estimate. The true effect is likely to be substantially different from the estimate of effect. |
| **Risk of Bias** | We downgraded the evidence by one level as 1/2 (50%) of studies in the meta-analysis had a RoB 2.0 judgment as ‘some concerns’. |
| **Inconsistency of results** | We did not downgrade the evidence due to heterogeneity of included studies as the heterogeneity between trials was not significant (P=0.22, I2=33%).  |
| **Indirectness of evidence** | Since we only included similar studies in terms of population, intervention, comparator and outcome, we did not downgrade the evidence based on this criterion.  |
| **Imprecision** | We downgraded the evidence by two levels due to imprecision as the meta-analysis had n=63<800 participants analysed, and a wide CI interval.  |
| **Publication bias** | We did not downgrade the evidence for publication bias since examination of funnel plot did not suggest serious small study effects.  |

 Shading indicates the items that were downgraded.



**Eccentric resistance training vs comparator on gait**

The GRADE approach was applied to the pooled analysis of 8 trials investigating the effects of eccentric resistance training compared to a control intervention/usual rehabilitation on gait (P=0.28; pooled standardised mean difference: 0.27; 95% CI -0.22 to 0.75).

|  |
| --- |
| **Overall result:** eccentric resistance training may not improve gait in neurological populations  |
| **Level of evidence:** Very low certainty We have very little confidence in the effect estimate. The true effect is likely to be substantially different from the estimate of effect. |
| **Risk of Bias** | We downgraded the evidence by one level as 7/8 (100%) of studies in the meta-analysis had a RoB 2.0 judgment as ‘some concerns’ or ‘high’. |
| **Inconsistency of results** | We downgraded the evidence due to heterogeneity of included studies as the heterogeneity between trials was high (p=0.005; I2=65%).  |
| **Indirectness of evidence** | Since we only included similar studies in terms of population, intervention, comparator and outcome, we did not downgrade the evidence based on this criterion.  |
| **Imprecision** | We downgraded the evidence by two levels due to imprecision as the meta-analysis had n=209<800 participants analysed, and a wide CI interval.  |
| **Publication bias** | We did not downgrade the evidence for publication bias since examination of funnel plot did not suggest serious small study effects.  |

 Shading indicates the items that were downgraded.



**Eccentric resistance training vs comparator on muscle structure (volume)**

The GRADE approach was applied to the pooled analysis of 3 trials investigating the effects of eccentric resistance training compared to a control intervention/usual rehabilitation on muscle structure (volume) (P=0.06; pooled standardised mean difference: 0.79; 95% CI -0.02 to 1.60).

|  |
| --- |
| **Overall result:** Eccentric resistance training may not improve muscle structure in neurological populations  |
| **Level of evidence:** Very low certainty We have very little confidence in the effect estimate. The true effect is likely to be substantially different from the estimate of effect. |
| **Risk of Bias** | We did not downgrade the evidence as 2/3 (67%) of studies in the meta-analysis had a RoB 2.0 judgment as ‘high’. |
| **Inconsistency of results** | We downgraded the evidence by one level as the heterogeneity between trials was substantial (I2=66%). |
| **Indirectness of evidence** | Since we only included similar studies in terms of population, intervention, comparator and outcome, we did not downgrade the evidence based on this criterion.  |
| **Imprecision** | We downgraded the evidence by two levels due to imprecision as the meta-analysis had n=54<800 participants analysed, and a wide CI interval. |
| **Publication bias** | We did not downgrade the evidence for publication bias since examination of funnel plot did not suggest serious small study effects.  |

 Shading indicates the items that were downgraded.

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**Eccentric resistance training vs comparator on muscle activity**

The GRADE approach was applied to the pooled analysis of 8 trials investigating the effects of eccentric resistance training compared to a control intervention/usual rehabilitation on muscle activity (P=0.16; pooled standardised mean difference: 0.67; 95% CI -0.26 to 1.59).

|  |
| --- |
| **Overall result:** eccentric resistance training may not improve muscle activity in neurological populations  |
| **Level of evidence:** Very low certainty We have very little confidence in the effect estimate. The true effect is likely to be substantially different from the estimate of effect. |
| **Risk of Bias** | We downgraded the evidence by one level as 1/2 (50%) of studies in the meta-analysis had a RoB 2.0 judgment as ‘some concerns’ or ‘high’. |
| **Inconsistency of results** | We did not downgrade the evidence due to heterogeneity of included studies as the heterogeneity between trials was not significant (P=0.10, I2=63%).  |
| **Indirectness of evidence** | Since we only included similar studies in terms of population, intervention, comparator and outcome, we did not downgrade the evidence based on this criterion.  |
| **Imprecision** | We downgraded the evidence by two levels due to imprecision as the meta-analysis had n=54<800 participants analysed, and a wide CI interval.  |
| **Publication bias** | We did not downgrade the evidence for publication bias since examination of funnel plot did not suggest serious small study effects.  |

 Shading indicates the items that were downgraded.



**Eccentric resistance training vs comparator on muscle spasticity**

The GRADE approach was applied to the pooled analysis of 8 trials investigating the effects of eccentric resistance training compared to a control intervention/usual rehabilitation on muscle tone (spasticity) (P=0.55; pooled standardised mean difference: -0.15; 95% CI -0.63 to 0.33).

|  |
| --- |
| **Overall result:** eccentric resistance training may not improve muscle spasticity in neurological populations  |
| **Level of evidence:** Very low certainty We have very little confidence in the effect estimate. The true effect is likely to be substantially different from the estimate of effect. |
| **Risk of Bias** | We downgraded the evidence by one level as 1/2 (50%) of studies in the meta-analysis had a RoB 2.0 judgment as ‘some concerns’. |
| **Inconsistency of results** | We did not downgrade the evidence due to heterogeneity of included studies as the heterogeneity between trials was not significant (P=0.79, I2=0%).  |
| **Indirectness of evidence** | Since we only included similar studies in terms of population, intervention, comparator and outcome, we did not downgrade the evidence based on this criterion.  |
| **Imprecision** | We downgraded the evidence by two levels due to imprecision as the meta-analysis had n=66<800 participants analysed, and a wide CI interval.  |
| **Publication bias** | We did not downgrade the evidence for publication bias since examination of funnel plot did not suggest serious small study effects.  |

 Shading indicates the items that were downgraded.

****

**Eccentric resistance training vs comparator on balance**

The GRADE approach was applied to the pooled analysis of 3 trials investigating the effects of eccentric resistance training compared to a control intervention/usual rehabilitation on balance (P=0.51; pooled standardised mean difference: 0.66; 95% CI -1.33 to 2.66).

|  |
| --- |
| **Overall result:** eccentric resistance training may not improve balance in neurological populations  |
| **Level of evidence:** Very low certainty We have very little confidence in the effect estimate. The true effect is likely to be substantially different from the estimate of effect. |
| **Risk of Bias** | We downgraded the evidence by one level as 2/3 (100%) of studies in the meta-analysis had a RoB 2.0 judgment as ‘some concerns’. |
| **Inconsistency of results** | We downgraded the evidence due to heterogeneity of included studies as the heterogeneity between trials was very high (p<0.001, I2=93%).  |
| **Indirectness of evidence** | Since we only included similar studies in terms of population, intervention, comparator and outcome, we did not downgrade the evidence based on this criterion.  |
| **Imprecision** | We downgraded the evidence by two levels due to imprecision as the meta-analysis had n=68<800 participants analysed, and a wide CI interval.  |
| **Publication bias** | We did not downgrade the evidence for publication bias since examination of funnel plot did not suggest serious small study effects.  |

 Shading indicates the items that were downgraded.



**Eccentric resistance training vs comparator on risk of fall**

The GRADE approach was applied to the pooled analysis of 4 trials investigating the effects of eccentric resistance training compared to a control intervention/usual rehabilitation on risk of fall (P=0.003; pooled standardised mean difference: -0.67; 95% CI -1.11 to -0.23).

|  |
| --- |
| **Overall result:** eccentric resistance training may improve gait in neurological populations  |
| **Level of evidence:** Very low certainty We have very little confidence in the effect estimate. The true effect is likely to be substantially different from the estimate of effect. |
| **Risk of Bias** | We downgraded the evidence by one level as 3/4 (75%) of studies in the meta-analysis had a RoB 2.0 judgment as ‘some concerns’ or ‘high’. |
| **Inconsistency of results** | We did not downgrade the evidence due to heterogeneity of included studies as the heterogeneity between trials was not significant (P=0.22, I2=33%).  |
| **Indirectness of evidence** | Since we only included similar studies in terms of population, intervention, comparator and outcome, we did not downgrade the evidence based on this criterion.  |
| **Imprecision** | We downgraded the evidence by two levels due to imprecision as the meta-analysis had n=87<800 participants analysed, and a wide CI interval.  |
| **Publication bias** | We did not downgrade the evidence for publication bias since examination of funnel plot did not suggest serious small study effects.  |

 Shading indicates the items that were downgraded.



**Supplementary File 4.** List of excluded studies and reasons for exclusion.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Title** | **Author** | **Year** | **DOI** | **Population** | **Intervention** | **Comparator** | **Outcome** | **Design** | **Other** | **Stage** |  |
| Eccentric rehabilitation induces white matter plasticity and sensorimotor recovery in chronic spinal cord injury. | Faw, TD; Lakhani, B; Schmalbrock, P; Knopp, MV; Lohse, KR; Kramer, JLK; Liu, H; Nguyen, HT; Phillips, EG; Bratasz, A; Fisher, LC; Deibert, RJ; Boyd, LA; McTigue, DM; Basso, DM | 2021 | 10.1016/j.expneurol.2021.113853 | X | X |  | X |  |  | FT |  |
| Coexistence of neuronal intranuclear inclusion disease and amyotrophic lateral sclerosis: an autopsy case. | Sugiyama, A; Takeda, T; Koide, M; Yokota, H; Mukai, H; Kitayama, Y; Shibuya, K; Araki, N; Ishikawa, A; Isose, S; Ito, K; Honda, K; Yamanaka, Y; Sano, T; Saito, Y; Arai, K; Kuwabara, S | 2021 | 10.1186/s12883-021-02306-5 | X | X | X | X | X |  | T/A |  |
| Relationship between bone strength index of the hemiparetic tibial diaphysis and muscle strength in people with chronic stroke: influence of muscle contraction type and speed. | Yang, Z; Miller, T; Pang, MYC | 2021 | 10.1007/s00198-020-05716-2 |  | X | X | X | X |  | T/A |  |
| Magnetization Transfer Ratio and Morphometrics of the Spinal Cord Associates with Surgical Recovery in Patients with Degenerative Cervical Myelopathy. | Paliwal, M; Weber, KA 2nd; Hopkins, BS; Cantrell, DR; Hoggarth, MA; Elliott, JM; Dahdaleh, NS; Mackey, S; Parrish, TD; Dhaher, Y; Smith, ZA | 2020 | 10.1016/j.wneu.2020.09.148 |  | X | X | X |  |  | T/A |  |
| A New Surgical Approach for the Management of Acute Corneal Hydrops Complicated With Corneal Perforation. | Petrelli, M; Cohen, J; Hashemi, K; Grentzelos, MA; Kymionis, GD | 2020 | 10.1097/ICO.0000000000002377 | X | X | X | X | X |  | T/A |  |
| Comparative analysis of power, work and muscle activation during weight-stack and iso-inertial flywheel resistance exercise in young adults with cerebral palsy. | von Walden, F; Hjalmarsson, E; Reimeringer, M; Kvist, O; Raffalt, PC; Pontén, E; Fernandez-Gonzalo, R | 2020 | 10.2340/16501977-2682 |  | X |  |  |  |  | T/A |  |
| Effect of Eccentric Strength Training on Elbow Flexor Spasticity and Muscle Weakness in People With Multiple Sclerosis: Proof-of-Concept Single-System Case Series. | Manca, A; Martinez, G; Aiello, E; Ventura, L; Deriu, F | 2020 | 10.1093/ptj/pzaa055 |  |  | X |  | X |  | T/A |  |
| Sensitivity analysis of muscle properties and impact parameters on head injury risk in American football. | Mortensen, JD; Vasavada, AN; Merryweather, AS | 2020 | 10.1016/j.jbiomech.2019.109411 | X | X | X | X | X |  | T/A |  |
| Implementation of a Virtual Reality rendered in Portable Devices for Strabismus Treatment based on Conventional Visual Therapy. | Cepeda-Zapata, LK; Romero-Soto, FO; Diaz de Leon, VA; Roa-Huertas, JL; Naal-Ruiz, NE; Ibarra-Zarate, D; Alonso-Valerdi, LM | 2019 | 10.1109/EMBC.2019.8857222 | X | X | X | X | X |  | T/A |  |
| Visual search and target detection during simulated driving in Parkinson's disease. | Ranchet, M; Morgan, JC; Akinwuntan, AE; Devos, H | 2020 | 10.1016/j.aap.2019.105328 |  | X |  | X |  |  | FT |  |
| Effects of downslope walking on Soleus H-reflexes and walking function in individuals with multiple sclerosis: A preliminary study. | Hoque, M; Borich, M; Sabatier, M; Backus, D; Kesar, T | 2019 | 10.3233/NRE-192701 |  |  | X | X |  |  | T/A |  |
| EMG-Based Characterization of Walking Asymmetry in Children with Mild Hemiplegic Cerebral Palsy. | Di Nardo, F; Strazza, A; Mengarelli, A; Cardarelli, S; Tigrini, A; Verdini, F; Nascimbeni, A; Agostini, V; Knaflitz, M; Fioretti, S | 2019 | 10.3390/bios9030082 |  | X | X | X | X |  | T/A |  |
| Spinal subependymoma surgery: do no harm. Little may be more! | Soleiman, HA; Ironside, J; Kealey, S; Demetriades, AK | 2020 | 10.1007/s10143-019-01128-x | X | X | X | X | X |  | T/A |  |
| Ultrasound-Guided Percutaneous Electrical Nerve Stimulation of the Radial Nerve for a Patient With Lateral Elbow Pain: A Case Report With a 2-Year Follow-up. | Soleiman, HA; Ironside, J; Kealey, S; Demetriades, AK | 2019 | 10.2519/jospt.2019.8570 | X | X | X |  | X |  | T/A |  |
| Effects of backward-downhill treadmill training versus manual static plantarflexor stretching on muscle-joint pathology and function in children with spastic Cerebral Palsy. | Hösl, M; Böhm, H; Eck, J; Döderlein, L; Arampatzis, A | 2018 | 10.1016/j.gaitpost.2018.07.171 |  |  |  |  | X |  | T/A |  |
| Strength and Step Activity After Eccentric Resistance Training in Those With Incomplete Spinal Cord Injuries. | Stone, WJ; Stevens, SL; Fuller, DK; Caputo, JL | 2018 | 10.1310/sci17-00052 |  |  | X |  |  |  | T/A |  |
| Ambulation and physical function after eccentric resistance training in adults with incomplete spinal cord injury: A feasibility study. | Stone, WJ; Stevens, SL; Fuller, DK; Caputo, JL | 2019 | 10.1080/10790268.2017.1417804 |  |  | X |  |  |  | T/A |  |
| Long-Term Regular Eccentric Exercise Decreases Neuropathic Pain-like Behavior and Improves Motor Functional Recovery in an Axonotmesis Mouse Model: the Role of Insulin-like Growth Factor-1. | Martins, DF; Martins, TC; Batisti, AP; Dos Santos Leonel, L; Bobinski, F; Belmonte, LAO; Mazzardo-Martins, L; Cargnin-Ferreira, E; Santos, ARS | 2018 | 10.1007/s12035-017-0829-3 | X |  | X |  |  |  | T/A |  |
| Effects of Classic Progressive Resistance Training Versus Eccentric-Enhanced Resistance Training in People With Multiple Sclerosis. | Patrocinio de Oliveira, CE; Moreira, OC; Carrión-Yagual, ZM; Medina-Pérez, C; de Paz, JA | 2018 | 10.1016/j.apmr.2017.10.021 |  |  | X |  |  |  | T/A |  |
| The Subclinical Cardiomyopathy of Friedreich's Ataxia in a Pediatric Population. | Plehn, JF; Hasbani, K; Ernst, I; Horton, KD; Drinkard, BE; Di Prospero, NA | 2018 | 10.1016/j.cardfail.2017.09.012 |  | X | X | X | X |  | FT |  |
| Mechanisms contributing to gait speed and metabolic cost in children with unilateral cerebral palsy. | Pinto, TPS; Fonseca, ST; Gonçalves, RV; Souza, TR; Vaz, DV; Silva, PLP; Mancini, MC | 2018 | 10.1016/j.bjpt.2017.06.015 |  | X | X | X | X |  | T/A |  |
| Consideration of Dose and Timing When Applying Interventions After Stroke and Spinal Cord Injury. | Basso, DM; Lang, CE | 2017 | 10.1097/NPT.0000000000000165 |  | X | X | X | X |  | T/A |  |
| Effects of Exercise on Type 2 Diabetes Mellitus-Related Cognitive Impairment and Dementia. | Callisaya, M; Nosaka, K | 2017 | 10.3233/JAD-161154 | X | X |  |  | X |  | T/A |  |
| Extrarenal rhabdoid tumor presented with an immobile arm in a one-year-old boy. | Chung, C; Liu, YL; Cheng, CJ; Hsieh, KLC; Tsai, ML; Wong, TT | 2017 | 10.1016/j.braindev.2017.04.001 |  | X | X | X | X |  | T/A |  |
| Medial gastrocnemius and soleus muscle-tendon unit, fascicle, and tendon interaction during walking in children with cerebral palsy. | Barber, L; Carty, C; Modenese, L; Walsh, J; Boyd, R; Lichtwark, G | 2017 | 10.1111/dmcn.13427 |  | X |  |  | X |  | T/A |  |
| Effectiveness and feasibility of eccentric and task-oriented strength training in individuals with stroke. | Folkerts, MA; Hijmans, JM; Elsinghorst, AL; Mulderij, Y; Murgia, A; Dekker, R | 2017 | 10.3233/NRE-171433 |  |  |  |  | X |  | T/A |  |
| Blink-associated contralateral eccentric saccades as a rare sign of unilateral brain injury. | Zivi, I; Bertelli, E; Bilotti, G; Clemente, IA; Saltuari, L; Frazzitta, G | 2017 | 10.1212/WNL.0000000000003484 |  | X | X | X | X |  | T/A |  |
| Contractile behavior of the medial gastrocnemius in children with bilateral spastic cerebral palsy during forward, uphill and backward-downhill gait. | Hösl, M; Böhm, H; Arampatzis, A; Keymer, A; Döderlein, L | 2016 | 10.1016/j.clinbiomech.2016.05.008 |  | X | X |  | X |  | T/A |  |
| Is better preservation of eccentric strength after stroke due to altered prefrontal function? | Hedlund, M; Lindström, B; Sojka, P; Lundström, R; Boraxbekk, CJ | 2016 | 10.1080/13554794.2015.1130232 | X | X |  |  | X |  | T/A |  |
| Increased spinal reflex excitability is associated with enhanced central activation during voluntary lengthening contractions in human spinal cord injury. | Kim, HE; Corcos, DM; Hornby, TG | 2015 | 10.1152/jn.01074.2014 |  | X |  |  | X |  | T/A |  |
| Simulated activity but real trauma: a systematic review on Nintendo Wii injuries based on a case report of an acute anterior cruciate ligament rupture. | Müller, SA; Vavken, P; Pagenstert, G | 2015 | 10.1097/MD.0000000000000648 | X | X | X | X | X |  | T/A |  |
| A systematic review and meta-analysis of strength training in individuals with multiple sclerosis or Parkinson disease. | Cruickshank, TM; Reyes, AR; Ziman, MR | 2015 | 10.1097/MD.0000000000000411 |  |  |  |  | X |  | FT |  |
| Energy flow analysis of the lower extremity during gait in persons with chronic stroke. | Novak, AC; Li, Q; Yang, S; Brouwer, B | 2015 | 10.1016/j.gaitpost.2014.12.018 |  | X | X |  | X |  | T/A |  |
| Homocysteine-induced attenuation of vascular endothelium-dependent hyperalgesia in the rat. | Joseph, EK; Green, PG; Ferrari, LF; Levine, JD | 2015 | 10.1016/j.neuroscience.2014.10.056 | X | X | X | X | X |  | T/A |  |
| Forward stair descent with hybrid neuroprosthesis after paralysis: Single case study demonstrating feasibility. | Bulea, TC; Kobetic, R; Audu, ML; Schnellenberger, JR; Pinault, G; Triolo, RJ | 2014 | 10.1682/JRRD.2013.12.0257 |  | X | X | X | X |  | T/A |  |
| Long-term efficacy and complications of black diaphragm intraocular lens implantation in patients with traumatic aniridia. | Qiu, X; Ji, Y; Zheng, T; Lu, Y | 2015 | 10.1136/bjophthalmol-2014-305581 | X | X | X | X | X |  | T/A |  |
| Defining success in infant penetrating keratoplasty for developmental corneal opacities. | Medsinge, A; Speedwell, L; Nischal, KK | 2014 | 10.3368/aoj.64.1.81 | X | X | X | X | X |  | T/A |  |
| A biomechanical cause of low power production during FES cycling of subjects with SCI. | Szecsi, J; Straube, A; Fornusek, C | 2014 | 10.1186/1743-0003-11-123 |  | X | X |  | X |  | T/A |  |
| Muscle activation varies with contraction mode in human spinal cord injury. | Kim, HE; Thompson, CK; Hornby, TG | 2015 | 10.1002/mus.24285 |  | X | X | X | X |  | T/A |  |
| Understanding stand-to-sit maneuver: implications for motor system neuroprostheses after paralysis. | Chang, SR; Kobetic, R; Triolo, RJ | 2014 | 10.1682/JRRD.2013.12.0264 |  | X | X |  | X |  | T/A |  |
| Evaluation of fixation pattern and reading ability in patients with Leber hereditary optic neuropathy. | Altpeter, EK; Blanke, BR; Leo-Kottler, B; Nguyen, XN; Trauzettel-Klosinski, S | 2013 | 10.1097/WNO.0b013e31829d1f5b |  | X | X | X | X |  | T/A |  |
| Machine-based morphologic analysis of glioblastoma using whole-slide pathology images uncovers clinically relevant molecular correlates. | Kong, J; Cooper, LAD; Wang, F; Gao, J; Teodoro, G; Scarpace, L; Mikkelsen, T; Schniederjan, MJ; Moreno, C S; Saltz, JH; Brat, DJ | 2013 | 10.1371/journal.pone.0081049 | X | X | X | X | X |  | T/A |  |
| Visual contrast sensitivity deficits in 'normal' visual field of patients with homonymous visual field defects due to stroke: a pilot study. | Clatworthy, PL; Warburton, EA; Tolhurst, DJ; Baron, JC | 2013 | 10.1159/000354810 |  | X | X | X | X |  | T/A |  |
| Influence of contraction type, speed, and joint angle on ankle muscle weakness in Parkinson's disease: implications for rehabilitation. | Pang, MY; Mak, MK | 2012 | 10.1016/j.apmr.2012.06.004 |  | X | X |  | X |  | T/A |  |
| Transfer effects of training-induced visual field recovery in patients with chronic stroke. | Bergsma, DP; Elshout, JA; van der Wildt, GJ; van den Berg, AV | 2012 | 10.1310/tsr1903-212 |  | X | X | X | X |  | FT |  |
| Effects of intensive physical rehabilitation on neuromuscular adaptations in adults with poststroke hemiparesis. | Andersen, LL; Zeeman, P; Jørgensen, JR; Bech-Pedersen, DT; Sørensen, J; Kjær, M; Andersen, JL | 2011 | 10.1519/JSC.0b013e31822a62ef |  | X | X |  |  |  | T/A |  |
| Increased power generation in impaired lower extremities correlated with changes in walking speeds in sub-acute stroke patients. | Brincks, J; Nielsen, JF | 2012 | 10.1016/j.clinbiomech.2011.08.007 |  | X |  |  |  |  | T/A |  |
| Oculomotor behavior of hemianopic chronic stroke patients in a driving simulator is modulated by vision training. | Bergsma, DP; Leenders, MJA; Verster, JC; van der Wildt, GJ; van den Berg, AV | 2011 | 10.3233/RNN-2011-604 |  | X | X |  | X |  | T/A |  |
| Tremor during movement correlates well with disability in people with essential tremor. | Norman, KE; D'Amboise, SN; Pari, G; Héroux, ME | 2011 | 10.1002/mds.23811 | X | X | X | X | X |  | T/A |  |
| Recovery of visual-field defects after occipital lobe infarction: a perimetric study. | Çelebisoy, M; Çelebisoy, N; Bayam, E; Köse, T | 2011 | 10.1136/jnnp.2010.214387 | X | X | X | X | X |  | T/A |  |
| Visual field expansion after visual restoration therapy. | Marshall, RS; Chmayssani, M; O'Brien, KA; Handy, C; Greenstein, VC | 2010 | 10.1177/0269215510362323 | X | X | X | X | X |  | T/A |  |
| Low resonance frequency vibration affects strength of paretic and non-paretic leg differently in patients with stroke. | Tihanyi, J; Di Giminiani, R; Tihanyi, T; Gyulai, G; Trzaskoma, L; Horváth, M | 2010 | 10.1556/APhysiol.97.2010.2.3 |  | X |  |  |  |  | FT |  |
| Stroke affects locomotor steering responses to changing optic flow directions. | Lamontagne, A; Fung, J; McFadyen, B; Faubert, J; Paquette, C | 2010 | 10.1177/1545968309355985 |  | X | X | X | X |  | T/A |  |
| Neuromuscular adaptations to eccentric strength training in children and adolescents with cerebral palsy. | Reid, S; Hamer, P; A, Jacqueline; Lloyd, D | 2010 | 10.1111/j.1469-8749.2009.03409.x |  |  |  |  | X |  | T/A |  |
| Muscle torque preservation and physical activity in individuals with stroke. | Eng, JJ; Lomaglio, MJ; Macintyre, DL | 2009 | 10.1249/MSS.0b013e31819aaad1 |  | X | X |  | X |  | T/A |  |
| Long-term learning of visual functions in patients after brain damage. | Mueller, I Gall, C; Kasten, E; Sabel, BA | 2008 | 10.1016/j.bbr.2008.03.005 |  | X | X |  | X |  | T/A |  |
| Effect of botulinum toxin injection in the rectus femoris on stiff-knee gait in people with stroke: a prospective observational study. | Stoquart, GG; Detrembleur, C; Palumbo, S; Deltombe, T; Lejeune, TM | 2008 | 10.1016/j.apmr.2007.08.131 |  | X | X |  | X |  | FT |  |
| Frequency of parafunctional oral habits in patients with cerebral palsy. | Ortega, AOL; Guimarães, AS; Ciamponi, AL; Marie, SKN | 2007 | 10.1111/j.1365-2842.2006.01703.x |  | X | X | X | X |  | T/A |  |
| Determinants of walking function after stroke: differences by deficit severity. | Patterson, SL; Forrester, LW; Rodgers, MM; Ryan, AS; Ivey, FM; Sorkin, JD; Macko, RF | 2007 | 10.1016/j.apmr.2006.10.025 |  | X | X |  | X |  | FT |  |
| Temporal sensitivity in a hemianopic visual field can be improved by long-term training using flicker stimulation. | Raninen, A; Vanni, S; Hyvärinen, L; Näsänen, R | 2007 | 10.1136/jnnp.2006.099366 |  | X | X |  | X |  | T/A |  |
| Activation impairment alters muscle torque-velocity in the knee extensors of persons with post-stroke hemiparesis. | Clark, DJ; Condliffe, Elizabeth G; Patten, C | 2006 | 10.1016/j.clinph.2006.07.131 |  | X | X |  | X |  | T/A |  |
| Reliability of concentric and eccentric torque during isokinetic knee extension in post-stroke hemiparesis. | Clark, DJ; Condliffe, Elizabeth G; Patten, C | 2006 | 10.1016/j.clinbiomech.2005.11.004 |  | X | X | X | X |  | T/A |  |
| [Amblyopia and strabismus in our environment]. | Ebana MC; Ellong, A; Owona, D; Luma, H; Bella, LA | 2005 |  | X | X | X | X | X |  | T/A |  |
| What change in isokinetic knee muscle strength can be detected in men and women with hemiparesis after stroke? | Flansbjer, UB; Holmbäck, AM; Downham, D; Lexell, J | 2005 | 10.1191/0269215505cr854oa |  | X | X | X | X |  | T/A |  |
| Break-technique handheld dynamometry: relation between angular velocity and strength measurements. | Burns, S P; Spanier, DE | 2005 | 10.1016/j.apmr.2004.12.041 |  | X | X | X | X |  | T/A |  |
| Postural control in otolith disorders. | Basta, D; Todt, I; Scherer, H; Clarke, A; Ernst, A | 2005 | 10.1016/j.humov.2005.04.002 | X | X | X |  | X |  | FT |  |
| [Eccentric isokinetic strengthening in hamstrings of patients with multiple sclerosis]. | Robineau, S; Nicolas, B; Gallien, P; Petrilli, S; Durufle, A; Edan, G; Rochcongar, P | 2005 | 10.1016/j.annrmp.2004.04.005 |  |  | X |  | X |  | T/A |  |
| Application of graph theory: prediction of glycogen synthase kinase-3 beta inhibitory activity of thiadiazolidinones as potential drugs for the treatment of Alzheimer's disease. | Kumar, V; Madan, AK | 2005 | 10.1016/j.ejps.2004.10.013 |  | X | X | X | X |  | T/A |  |
| Adults with cerebral palsy: walking ability after progressive strength training. | Andersson, C; Grooten, W; Hellsten, M; Kaping, K; Mattsson, E | 2003 | 10.1017/s0012162203000446 |  | X |  |  |  |  | T/A |  |
| Kinetic analysis of planned gait termination in healthy subjects and patients with balance disorders. | O'Kane, FW; McGibbon, CA; Krebs, DE | 2003 | 10.1016/s0966-6362(02)00104-2 |  | X | X | X | X |  | T/A |  |
| Predicting anticonvulsant activity of benzamides/benzylamines: computational approach using topological descriptors. | Sardana, S; Madan, A K | 2002 | 10.1023/a:1021904803057 | X | X | X | X | X |  | T/A |  |
| Effects of osteopathic manipulative treatment and concentric and eccentric maximal-effort exercise on women with multiple sclerosis: a pilot study. | Yates, HA; Vardy, Terence C; Kuchera, Michael L; Ripley, DD; Johnson, JC | 2002 |  |  | X | X |  |  |  | T/A |  |
| Contrast dependence of perceptual grouping in brain-damaged patients with visual extinction. | Pavlovskaya, M; Sagi, D; Soroker, N | 2000 | 10.1163/156856800741289 |  | X | X | X | X |  | T/A |  |
| Effects of thoraco-lumbar electric sensory stimulation on knee extensor spasticity of persons who survived cerebrovascular accident (CVA). | Wang, RY; Chan, RC; Tsai, MW | 2000 |  |  | X | X |  | X |  | FT |  |
| Development of fatigue during repeated eccentric-concentric muscle contractions of plantar flexors in patients with stroke. | Svantesson, UM; Sunnerhagen, KS; Carlsson, US; Grimby, G | 1999 | 10.1016/s0003-9993(99)90024-2 |  | X | X |  | X |  | T/A |  |
| "Task-oriented" exercise improves hamstring strength and spastic reflexes in chronic stroke patients. | Smith, GV; Silver, KH; Goldberg, AP; Macko, RF | 1999 | 10.1161/01.str.30.10.2112 |  | X | X |  | X |  | T/A |  |
| Isokinetic assessment of spasticity in subjects with traumatic spinal cord injury (ASIA A). | Franzoi, AC; Castro, C; Cardone, C | 1999 | 10.1038/sj.sc.3100849 |  | X | X |  | X |  | T/A |  |
| Limbal transplantation after chemical injuries of the eye. | Cardoen, L; Foets, B | 1999 |  |  | X | X | X | X |  | T/A |  |
| Eccentric exercise and neuroleptic malignant syndrome. | Gralton, E; Wildgoose, J; Donovan, W M; Wilkie, J | 1998 | 10.1016/s0140-6736(98)08029-5 | X |  |  |  |  |  | T/A |  |
| The spatial distribution of visual attention in hemineglect and extinction patients. | Smania, N; Martini, M C; Gambina, G; Tomelleri, G; Palamara, A; Natale, E; Marzi, CA | 1998 | 10.1093/brain/121.9.1759 |  | X | X | X | X |  | T/A |  |
| The standing heel-rise test in patients with upper motor neuron lesion due to stroke. | Svantesson, U; Osterberg, U; Grimby, G; Sunnerhagen, KS | 1998 |  |  | X | X | X | X |  | T/A |  |
| Stretch-shortening contraction in Parkinson patients: evidence of normal muscle contraction execution with low efficiency. | Pedersen, SW; Oberg, B | 1997 |  |  | X | X | X | X |  | T/A |  |
| Gait analysis, isokinetic muscle strength measurement in patients with Parkinson's disease. | Pedersen, SW; Oberg, B; Larsson, LE; Lindval, B | 1997 |  |  | X | X |  | X |  | T/A |  |
| Isokinetic muscle strength and its association with neuropsychological capacity in cirrhotic alcoholics. | Tarter, RE; Panzak, G; Switala, J; Lu, S; Simkevitz, H; Van Thiel, D | 1997 |  | X | X | X | X | X |  | T/A |  |
| Stretch-shortening cycle in patients with upper motor neuron lesions due to stroke. | Svantesson, U; Sunnerhagen, KS | 1997 | 10.1007/s004210050166 |  | X | X |  | X |  | T/A |  |
| Community photoscreening of six to nine month old infants for amblyopiogenic risk factors. | Hope, C; Roulston, J; Hoey, C; Wong, A; Clover, G | 1994 | 10.1111/j.1442-9071.1994.tb01716.x | X | X | X | X | X |  | T/A |  |
| Neurovisual rehabilitation in cerebral blindness. | Kerkhoff, G; Münssinger, U; Meier, EK | 1994 | 10.1001/archneur.1994.00540170050016 |  | X | X | X | X |  | T/A |  |
| Eccentric and concentric muscle performance in patients with spastic paresis secondary to motor neuron disease. A preliminary report. | Griffin, JW; Tooms, RE; Vander Zwaag, R; O'Toole, ML; Bertorini, TE | 1994 | 10.1016/0960-8966(94)90004-3 |  | X | X |  | X |  | T/A |  |
| Rising and sitting down in stroke patients. Auditory feedback and dynamic strength training to enhance symmetrical body weight distribution. | Engardt, M | 1994 |  |  | X | X | X | X |  | T/A |  |
| The problem of macular sparing after unilateral occipital lesions. | Sugishita, M; Hemmi, I; Sakuma, I; Beppu, H; Shiokawa, Y | 1993 | 10.1007/BF00870664 | X | X | X | X | X |  | T/A |  |
| Adaptive control of functional neuromuscular stimulation-induced knee extension exercise. | Ezenwa, BN; Glaser, RM; Couch, W; Figoni, SF; Rodgers, MM | 1991 | 10.1682/jrrd.1991.10.0001 |  | X | X |  | X |  | FT |  |
| Group training in parkinsonism: quantitative measurements of treatment. | Pedersen, W; Oberg, B; Insulander, A; Vretman, M | 1990 |  |  | X | X | X | X |  | T/A |  |
| [Central dysregulations as a cause of movement disorders in performance sports? An analysis of movement in sports with reference to functional anatomic and neurophysiologic viewpoints]. | Sommer, HM; von Rohrscheidt, C | 1988 | 10.1055/s-2007-993660 | X | X | X | X | X |  | T/A |  |
| Visual field rehabilitation in the cortically blind? | Balliet, R; Blood, KM; Bach-y-Rita, P | 1985 | 10.1136/jnnp.48.11.1113 |  | X | X | X | X |  | T/A |  |
| Visual field recovery from scotoma in patients with postgeniculate damage. A review of 55 cases. | Zihl, J; von Cramon, D | 1985 | 10.1093/brain/108.2.335 |  | X | X | X | X |  | T/A |  |
| Restitution of visual field in patients with damage to the geniculostriate visual pathway. | Zihl, J; von Cramon, D | 1982 |  |  | X | X | X | X | X | T/A |  |
| Are the dominant eyes of amblyopes normal? | Kandel, GL; Grattan, PE; Bedell, HE | 1980 | 10.1097/00006324-198001000-00001 | X | X | X | X | X |  | T/A |  |
| [Better prognosis for amblyopics by means of full prismatic correction after monocular treatment (author's transl)]. | Pestalozzi, D; Schwarzenbach, A | 1979 |  | X | X | X | X | X |  | T/A |  |
| A displaced Stiles-Crawford effect associated with an eccentric pupil. | Bonds, AB; MacLeod, DI | 1978 |  | X | X | X | X | X |  | T/A |  |
| [On the occlusive treatment of amblyopia with eccentric fixation]. | Priegnitz, F; Zimmer, R | 1965 |  | X | X | X | X | X |  | T/A |  |
| Finishing stationary cycling too early after anterior cruciate ligament reconstruction is likely to lead to higher failure | Sonkodi, B; Varga, E; Hangody, L; Poór, G; Berkes, I |  | 10.1186/s13102-021-00377-y | X | X | X | X | X |  | T/A |  |
| X-ray diffraction analysis to explore molecular traces of eccentric contraction on rat skeletal muscle parallelly evaluated with signal protein phosphorylation levels | Hirano, K; Yamauchi, H; Nakahara, N; Kinoshita, K; Yamaguchi, M; Takemori, S |  | 10.3390/ijms222312644 | X | X | X | X | X |  | T/A |  |
| Eccentric exercise causes delayed sensory nerve conduction velocity but no repeated bout effect in the flexor pollicis brevis muscles | Ochi, E; Ueda, H; Tsuchiya, Y; Nakazato, K |  | 10.1007/s00421-021-04773-7 |  | X | X | X | X |  | T/A |  |
| Delayed onset muscle soreness (Doms): The repeated bout effect and chemotherapy-induced axonopathy may help explain the dying-back mechanism in amyotrophic lateral sclerosis and other neurodegenerative diseases | Sonkodi, B |  | 10.3390/brainsci11010108 | X | X | X | X | X |  | T/A |  |
| "going Backward": Effects of age and fatigue on posterior-directed falls in Parkinson disease | Papa, EV; Patterson, RM; Bugnariu, N |  | 10.3233/NRE-210040 |  | X | X | X | X |  | T/A |  |
| Spider as a rehabilitation tool for patients with neurological disabilities: The preliminary research | Glowinski, S; Blazejewski, A |  | 10.3390/jpm10020033 |  | X | X |  | X |  | T/A |  |
| Measuring Motor Fatigability in the Upper Limbs in Individuals With Neurologic Disorders: A Systematic Review | Brauers, L; Rameckers, E; Severijns, D; Feys, P; Smeets, R; Klingels, K |  | 10.1016/j.apmr.2019.11.015 |  | X | X |  | X |  | T/A |  |
| Reliability of isokinetic knee strength measurements in children: A systematic review and meta-analysis | Muñoz-Bermejo, L; Pérez-Gómez, J; Manzano, F; Collado-Mateo, D; Villafaina, S; Adsuar, JC |  | 10.1371/journal.pone.0226274 |  | X | X |  | X |  | T/A |  |
| Mechanomyography-based muscle fatigue detection during electrically elicited cycling in patients with spinal cord injury | Naeem, J; Hamzaid, NA; Islam, MA; Azman, AW; Bijak, M |  | 10.1007/s11517-019-01949-4 |  | X | X | X | X |  | T/A |  |
| Measuring motor fatigability in the upper limb in subjects with neurological disorders: A systematic review | Brauers, L; Rameckers, E; Severijns, D; Feys, P; Smeets, R; Klingels, K |  | 10.1111/dmcn.14244 |  | X | X |  | X |  | T/A |  |
| The mystery behind the exercise-induced muscle damage | Qamar, MM; Javed, MS; Dogar, MZUH; Basharat, A; Rasul, A |  |  |  | X | X | X | X |  | FT |  |
| Adaptation to poststroke visual field loss: A systematic review | Howard, C; Rowe, FJ |  | 10.1002/brb3.1041 |  | X | X | X | X |  | T/A |  |
| Eicosahexanoic acid (EPA) and docosahexanoic acid (DHA) in muscle damage and function | Ochi, E; Tsuchiya, Y |  | 10.3390/nu10050552 | X | X | X | X | X |  | T/A |  |
| Effect of insoles with arch support on gait pattern in patients with multiple sclerosis | Güner, S; Haghari, S; Alsancak, S; Uluğ, N; İnanıcı, F |  | 10.5606/tftrd.2018.2246 |  | X |  |  |  |  | T/A |  |
| Muscle strength and power in persons with multiple sclerosis – A systematic review and meta-analysis | Jørgensen, MLK; Dalgas, U; Wens, I; Hvid, LG |  | 10.1016/j.jns.2017.03.022 |  | X | X |  | X |  | T/A |  |
| Medial gastrocnemius fascicle function during walking in children with cerebral palsy following gastrocnemius lengthening surgery | Barber, LA; Carty, C; Walsh, J; Boyd, RN; Lichtwark, GA |  | 10.1111/dmcn.13455 |  | X | X |  |  |  | T/A |  |
| How to restore shoulder external rotation in erb’s palsy | Afzal, F; Manzoor, S; Afzal, A |  |  | X | X | X | X | X |  | T/A |  |
| The effect of maximal strength training on strength, walking, and balance in people with multiple sclerosis: A pilot study | Karpatkin, HI; Cohen, ET; Klein, S; Park, D; Wright, C; Zervas, M |  | 10.1155/2016/5235971 |  | X |  |  | X |  | FT |  |
| Promoting Physical Activity Through a Manual Wheelchair Propulsion Intervention in Persons with Multiple Sclerosis | Rice, IM; Rice, LA; Motl, RW |  | 10.1016/j.apmr.2015.06.011 |  | X | X | X | X |  | T/A |  |
| Pronounced decrease in concentric strength following stroke due to pre-frontally mediated motor inhibition | Hedlund, M; Lindström, B; Sojka, P; Lundström, R; Olsson, C-J |  | 10.1016/j.physio.2015.03.3368 |  | X | X | X | X |  | T/A |  |
| Chronic stroke patients show early and robust improvements in muscle and functional performance in response to eccentric-overload flywheel resistance training: A pilot study | Fernandez-Gonzalo, R; Nissemark, C; Åslund, B; Tesch, PA; Sojka, P |  | 10.1186/1743-0003-11-150 |  |  | X |  | X |  | T/A |  |
| Beware the kettlebell | Calzetta, MA; Barnes, MB |  |  | X | X | X | X | X |  | T/A |  |
| Treatment of muscle haematomas in haemophiliacs with special emphasis on percutaneous drainage | De La Corte-Rodriguez, H; Rodriguez-Merchan, EC |  | 10.1097/MBC.0000000000000159 | X | X | X | X | X |  | T/A |  |
| Effects of 8 weeks of water-based exercise on the lower limb muscles strength in parkinson's patients | Azizi, S; Kargarfard, M; Azizi, R |  |  |  | X |  |  | X |  | T/A |  |
| An overview of animal models of pain: Disease models and outcome measures | Gregory, NS; Harris, AL; Robinson, CR; Dougherty, PM; Fuchs, PN; Sluka, KA |  | 10.1016/j.jpain.2013.06.008 | X | X | X | X | X |  | T/A |  |
| Positive and negative work during walking in children with cerebral palsy | Van De Walle, P; Hallemans, A; Molenaers, G; De Beeck, NO; Desloovere, K |  | 10.1016/j.gaitpost.2013.07.155 |  | X | X |  | X |  | T/A |  |
| Mirror training to augment cross-education during resistance training: A hypothesis | Howatson, G; Zult, T; Farthing, JP; Zijdewind, I; Hortobágyi, T |  | 10.3389/fnhum.2013.00396 | X | X | X | X | X |  | T/A |  |
| 160th ENMC International Workshop (First ENMC practical care workshop) Exercise training in patients with muscle diseases. 20-22 June 2008, Naarden, The Netherlands. | Vissing, J; van Engelen, BGM |  | 10.1016/j.nmd.2012.08.005 | X | X | X | X | X |  | T/A |  |
| Isokinetic assessment of muscle function: Our experience with patients afflicted with selected diseases of the nervous system | Lexell, J; Flansbjer, U-B; Brogårdh, C |  | 10.3233/IES-2012-0478 |  | X | X |  | X |  | T/A |  |
| Isokinetic knee extension and flexion strength in individuals with hemiparesis after stroke | Flansbjer, UB; Lexell, J |  | 10.3233/IES-2012-0446 |  | X | X |  | X |  | T/A |  |
| Torque-angle relationship are better preserved during eccentric compared to concentric contractions in patients with stroke | Hedlund, M; Sojka, P; Lundström, R; Lindström, B |  | 10.3233/IES-2012-0455 |  | X | X |  | X |  | T/A |  |
| Strength and aerobic requirements during stair ambulation in persons with chronic stroke and healthy adults | Novak, AC; Brouwer, B |  | 10.1016/j.apmr.2011.10.009 |  | X | X |  | X |  | T/A |  |
| Insufficient loading in stroke subjects during conventional resistance training | Hedlund, M; Sojka, P; Lundström, R; Lindström, B |  | 10.3109/14038196.2012.658861 |  | X | X | X | X |  | T/A |  |
| Ankle muscle weakness in individuals with parkinson's disease: The influence of contraction type, speed, and joint angle | Pang, MYC; Mak, MKY |  | 10.1016/j.hkpj.2011.08.026 |  | X | X |  | X |  | T/A |  |
| Atrophy and intramuscular fat in specific muscles of the thigh: Associated weakness and hyperinsulinemia in stroke survivors | Ryan, AS; Buscemi, A; Forrester, L; Hafer-Macko, CE; Ivey, FM |  | 10.1177/1545968311408920 |  | X | X |  | X |  | T/A |  |
| The positive effect of mirror visual feedback on arm control in children with Spastic Hemiparetic Cerebral Palsy is dependent on which arm is viewed | Smorenburg, ARP; Ledebt, A; Feltham, MG; Deconinck, FJA; Savelsbergh, GJP |  | 10.1007/s00221-011-2789-6 |  | X | X |  | X |  | T/A |  |
| Chemodenervation of the antagonist muscle | Gaber, TA; Azer, A; Basu, B; Mannemela, S |  | 10.1007/s00415-011-6026-9 |  | X | X |  | X |  | T/A |  |
| Analgesics and Anti-inflammatory Medications in Sports: Use and Abuse | Feucht, CL; Patel, DR |  | 10.1016/j.pcl.2010.02.004 | X | X | X | X | X |  | T/A |  |
| Upper limb targeted complex rehabilitationwith mechanotherapy in acute stroke patients | Samsygina, OM; Ivanova, GE; Kovrazhkina, EA |  | 10.1159/000321266 |  | X |  |  |  |  | T/A |  |
| Elbow Tendinopathy and Tendon Ruptures: Epicondylitis, Biceps and Triceps Ruptures | Rineer, CA; Ruch, DS |  | 10.1016/j.jhsa.2009.01.022 | X | X | X | X | X |  | FT |  |
| Disorders of the Achilles tendon | Duerden, JD; Keeling, JJ |  | 10.1097/BCO.0b013e3282f379ad | X | X | X | X | X |  | T/A |  |
| One session of whole body vibration increases voluntary muscle strength transiently in patients with stroke | Tihanyi, TK; Horváth, M; Fazekas, G; Hortobágyi, T; Tihanyi, J |  | 10.1177/0269215507077814 |  | X |  |  |  |  | T/A |  |
| Functional output improvement in FES cycling by means of forced smooth pedaling | Szecsi, J; Krause, P; Krafczyk, S; Brandt, T; Straube, A |  | 10.1249/mss.0b013e3180334966 |  | X |  |  | X |  | T/A |  |
| The Safety and Feasibility of High-Force Eccentric Resistance Exercise in Persons With Parkinson's Disease | Dibble, LE; Hale, T; Marcus, RL; Gerber, JP; LaStayo, PC |  | 10.1016/j.apmr.2006.05.016 |  |  |  |  | X |  | T/A |  |
| Reproducibility analysis of isokinetic strength measurements of shoulder and elbow muscles in subjects with spinal cord injury | Kakebeeke, TH; Lechner, HE; Handschin, C |  | 10.3233/ies-2005-0215 |  | X | X | X | X |  | T/A |  |
| Eccentric exercise in patients with chronic health conditions: a systematic review | Roig M; Shadgan B; Reid WD | 2008 |  | X |  |  |  | X |  | FT |  |
| Uphill and downhill walking in multiple sclerosis: a randomized controlled trial [with consumer summary] | Samaei A; Bakhtiary AH; Hajihasani A; Fatemi E; Motaharinezhad F | 2016 |  |  | X |  |  |  |  | T/A |  |
| One session of whole body vibration increases voluntary muscle strength transiently in patients with stroke [with consumer summary] | Tihanyi TK; Horvath M; Fazekas G; Hortobagyi T; Tihanyi J | 2007 |  |  | X |  |  |  |  | T/A |  |
| Effects of concentric and eccentric control exercise on gross motor function and balance ability of paretic leg in children with spastic hemiplegia | Park SI; Kim M-S; Choi JD | 2016 |  |  | X |  |  |  |  | T/A |  |
| Effects of backward-downhill treadmill training versus manual static plantarflexor stretching on muscle-joint pathology and function in children with spastic cerebral palsy [with consumer summary] | Hosl M; Bohm H; Eck J; Doderlein L; Arampatzis A | 2018 |  |  | X |  |  |  |  | T/A |  |
| Effects of high resistance training in patients with myotonic dystrophy | Tollback A; Eriksson S; Wredenberg A; Jenner G; Vargas R; Borg K; Ansved T | 1999 |  |  | X | X |  | X |  | T/A |  |
| The effect of a high resistance exercise program in slowly progressive neuromuscular disease | Kilmer DD; McCrory MA; Wright NC; Aitkens SG; Bernauer EM | 1994 |  |  | X |  |  |  |  | T/A |  |
| Physical activity and exercise for chronic pain in adults: an overview of Cochrane reviews (Cochrane review) [with consumer summary] | Geneen LJ; Moore RA; Clarke C; Martin D; Colvin LA; Smith BH | 2017 |  | X | X |  |  | X |  | FT |  |
| Effectiveness of surgical and non-surgical management of crouch gait in cerebral palsy: a systematic review [with consumer summary] | Galey SA; Lerner ZF; Bulea TC; Zimbler S; Damiano DL | 2017 |  |  | X | X |  | X |  | FT |  |
| Efficacy of gait training using a treadmill with and without visual biofeedback in patients after stroke: a randomized study | Druzbicki M; Guzik A; Przysada G; Kwolek A; Brzozowska-Magon A | 2015 |  |  | X |  |  |  |  | T/A |  |
| Combined effects of Botulinum toxin and casting treatments on lower limb spasticity after stroke | Farina S; Migliorini C; Gandolfi M; Bertolasi L; Casarotto M; Manganotti P; Fiaschi A; Smania N | 2008 |  |  | X | X |  |  |  | T/A |  |
| The effect of exercise training in improving motor performance and corticomotor excitability in people with early Parkinson's disease | Fisher BE; Wu AD; Salem GJ; Song J; Lin C-HJ; Yip J; Cen S; Gordon J; Jakowec M; Petzinger G | 2008 |  |  | X | X |  |  |  | FT |  |
| A randomized controlled trial of early surgery in Duchenne muscular dystrophy | Manzur AY; Hyde SA; Rodillo E; Heckmatt JZ; Bentley G; Dubowitz V | 1992 |  |  | X |  |  |  |  | FT |  |
| Reduction of spasticity in cerebral palsy using feedback of the tonic stretch reflex: a controlled study | O'Dwyer N; Neilson P; Nash J | 1994 |  |  | X | X |  | X |  | T/A |  |
| Blood Flow Restriction Exercise for Those With SCI | McDaniel, J | 2021 |  | X | X |  |  |  |  | T/A |  |
| Effects of Flywheel Exercise on Muscle and Walking Function in Teenagers and Young Adults With Cerebral Palsy | Fernandez Gonzalo, R | 2017 |  |  |  |  |  | X |  | T/A |  |
| Investigation of the Effects of Selective Exercise Training in Multiple Sclerosis | Firat, T | 2021 |  |  |  |  |  |  | X | FT | no data available |
| Intensive cycle ergometer training improves gait speed and endurance in patients with Parkinson's disease: a comparison with treadmill training | Arcolin, I; Pisano, F; Delconte, C; Godi, M; Schieppati, M; Mezzani, A; Picco, D; Grasso, M; Nardone, A | 2016 | 10.3233/RNN-150506 |  | X |  |  |  |  | T/A |  |
| Training and Parkinson's | Signorile, J | 2018 |  |  | X |  |  |  |  | T/A |  |
| Botulinum Toxin Type A and Kinesitherapy of Post-stroke Patients | Melo, A | 2009 |  |  | X |  |  | X |  | T/A |  |
| Comparison of Concentric or Eccentric Virtual Reality Training Program in Subacute-stroke Patients With Hemispatial Neglect | Deog Young, K | 2020 |  |  | X |  |  |  |  | T/A |  |
| Eccentric Contraction-based Resistance Exercise for Chronic Stroke Patients | Lim, JY | 2020 |  |  |  |  |  |  | X | FT | no data available |
| Improving Stretching Interventions for Children With Cerebral Palsy | O'Brien TD | 2016 |  |  | X |  |  |  |  | FT |  |
| Stretching in Children and Adolescents With Spastic Cerebral Palsy | Kruse, A | 2020 |  |  | X |  |  |  |  | FT |  |
| Progressive Functional Strength Training in Unilateral Spastic Cerebral Palsy | Kara, OK | 2015 |  |  | X |  |  |  |  | T/A |  |
| Amblyopia and Stereoptic Games for Vision | Steffen, H | 2021 |  | X | X | X |  | X |  | T/A |  |
| Treadmill in the Rehabilitation of Parkinsonian Gait | Tassorelli, C | 2019 |  |  | X |  |  | X |  | T/A |  |
| Radial Extracorporeal Shock Wave Therapy for Spastic Plantar Flexor Muscles in Young Children With Cerebral Palsy | Jia, F | 2016 |  |  | X |  |  | X |  | T/A |  |
| Tendon Vibrations Effect on Upper Limb Motor Recovery After Recent Stroke | Yelnik, A | 2021 |  |  | X |  |  |  |  | T/A |  |
| Intervention Assessing the Role of Exercise Program and Nutrition Supplement for Sarcopenia | Chan, R | 2017 |  |  | X |  |  |  |  | T/A |  |
| Effects of Sleep Deprivation on Blood Hormones and Inflammatory Status After Exercise Induced-muscle Damage | Mello, MT | 2013 |  |  | X |  | X | X |  | T/A |  |
| The Effects of Functional Power Training on Frail and Pre-frail Community - Dwelling Older Adults in Singapore | Wee, SL | 2020 |  | X |  |  |  |  |  | FT |  |
| Study of Epicutaneously Applied Ketoprofen Transfersome® Gel With or Without Combination With Oral Celecoxib for the Treatment of Muscle Pain Induced by Eccentric Exercise | X pert Med GmbH |  |  |  | X |  |  |  | X | T/A |  |
| Different Proprioceptive Neuromuscular Facilitation (PNF) Technique in Patients With Knee Osteoarthritis | Can, F | 2021 |  | X | X |  |  |  |  | FT |  |
| Effect of Open Kinetic Chain Shoulder Exercises on Scapulothoracic Muscle Activity on Stable and Unstable Ground | Canli, K | 2022 |  |  | X |  |  |  |  | T/A |  |
| Exercises With Elastic Bands and Stability in Proprioception and Strength in Female Athletes of Taekwondo | Investigación en Hemofilia y, Fisioterapia | 2020 |  | X | X |  |  |  |  | T/A |  |
| Somatosensory Dysfunction as the Underlying Mechanism of Upper Limbs Motor Blocks in People With Parkinson's Disease | Nieuwboer, A | 2016 |  |  | X |  |  | X |  | T/A |  |
| Vibrational-proprioceptive Resistance Exercise Training Versus Neuromuscular Electrical Stimulation Training in Elderly People With Muscle Weakness | Kern, H | 2014 |  | X |  |  |  |  |  | T/A |  |
| Pilates Method in People With HAM/TSP | Pedreira, E | 2018 |  |  | X |  |  |  |  | T/A |  |
| Effect of Body Suspension and Tilting Exercises in Parkinson's Disease | De Oliveira, CB | 2016 |  |  | X |  |  |  |  | T/A |  |
| Whole-body Electromyostimulation in Inpatient Rehabilitation | Mooren, F | 2020 |  |  | X |  |  |  |  | T/A |  |
| Functional Vision in TBI | Schuchard, R | 2013 |  |  | X |  |  | X |  | T/A |  |
| Detection and Treatment of Sarcopenia and Myosteatosis in Older African Americans | Harris-Love, M | 2021 |  |  | X |  |  |  |  | T/A |  |
| Kabat Technique and Neuromuscular Effect in Patients With Bell's Palsy | Saeed, A | 2020 |  | X | X |  |  |  |  | T/A |  |
| Contralateral Strength-training After Anterior Cruciate Ligament (ACL) Reconstruction | Maffiuletti, NA | 2015 |  | X |  |  |  |  |  | T/A |  |
| Effects of Eccentric Training Intervention in Older Adults | Lim, JY | 2019 |  | X |  |  |  |  |  | T/A |  |
| Somatic Yoga and Meditation for Cancer Survivors With Pain From Neuropathy | Galantino, ML | 2019 |  | X | X |  |  |  |  | FT |  |
| Two Resistance Training Protocols to Reduce the Risk of Falls in Parkinson's Disease | Intzandt, B | 2016 |  |  | X |  |  |  | X | T/A |  |
| The Effect of Isokinetic Strengthening Training | Cheng, YY | 2022 |  |  |  | X |  |  |  | T/A |  |
| Mobility Training Using a Bionic Knee Orthosis in Patients Chronic Post-Stroke: A Case Series | Byl, NN | 2011 |  |  | X |  |  | X |  | T/A |  |
| The Effect of the Reverse Nordic Curl Exercise on Quadriceps Femoris Muscles Injury Rate Among Soccer Players | Al Attar, WSA | 2021 |  | X |  |  | X |  |  | T/A |  |
| Resistance Exercise Modify Cardiovascular Responses of Professors During Teaching and Sleep | Teixeira-Araujo, AA | 2014 |  | X | X |  | X |  |  | T/A |  |
| High Intensity Interval Training in Chronic Stroke Patients | Smania, N | 2016 |  |  | X |  |  |  |  | T/A |  |
| Low-Volume Interval Training and Resistance Exercise in Individual With Stroke | Abd Manaf, MH | 2021 |  |  |  |  |  |  | X | FT | no data available |
| Effects of Variable Load Exercise on Aging Atrophy | Pisot, R | 2020 |  | X |  |  |  |  |  | T/A |  |
| Physical Exercises for Temporomandibular Disorders | Bernhardt, O | 2022 |  | X |  |  |  |  |  | FT |  |
| Efficacy of Exercise on Post Needling Soreness | Fernández-de-las-Peñas, C | 2019 |  | X |  |  |  |  |  | FT |  |
| Exercise and Neuroprotection in Older Persons With Multiple Sclerosis | Jørgensen, MLK | 2024 |  |  |  |  |  |  | X | T/A | no data available |
| Metabolic Health in Individuals With Spinal Cord Injury (SCI) | Yarar-Fisher, C | 2022 |  |  | X |  |  |  |  | T/A |  |
| Maximizing Mechanisms of Muscle Hypertrophy to Combat Sarcopenia in Older Adults | Stec, MJ | 2012 |  | X |  |  |  | X |  | T/A |  |
| Muscle Damage and Disuse Atrophy | University of Exeter | 2019 |  | X | X |  |  |  |  | FT |  |
| Muscle Weakness and Post-traumatic Knee OA | Chmielewski, T | 2013 |  | X |  |  |  |  |  | T/A |  |
| Daily Undulating Periodization Methods With Parkinson's Disease | Signorile, JF | 2019 |  | X |  |  |  |  |  | T/A |  |
| Structural and Metabolic Determinants of Sarcopenia and the Efficacy of Concentric vs. Eccentric Exercise Training | Narici, MV | 2017 |  | X |  |  |  |  |  | T/A |  |
| Effects of Parmigiano Reggiano on Muscle and Inflammatory Response to Eccentric Resistance Training in Older Adults | Moro, T | 2022 |  | X |  |  |  |  |  | T/A |  |
| Effects of High-velocity Resistance Training and Creatine Supplementation in Healthy Aging Males | Candow, DG | 2018 |  | X | X |  | X |  |  | T/A |  |
| Reducing Falls With RENEW in Older Adults Who Have Fallen | Lastayo, PC | 2014 |  | X |  |  |  |  |  | T/A |  |
| Eccentric Resistance Training in Adults with and without Spinal Cord Injuries | Stone, W J; Stevens, SL; Fuller, DK; Caputo, JL |  |  |  |  | X |  |  |  | T/A |  |
| Michigan Initiative for Anterior Cruciate Ligament Rehabilitation (MiACLR): A Protocol for a Randomized Clinical Trial | Rodriguez, K; Garcia, SA; Spino, C; Lepley, LK; Pang, Y; Wojtys, E; Bedi, A; Angelini, M; Ruffino, B; Bolley, T; Block, C; Kellum, J; Swartout, A; Palmieri-Smith, RM | 2020 | 10.1093/ptj/pzaa169 | X |  |  |  |  |  | T/A |  |
| The mechanisms of adaptation for muscle fascicle length changes with exercise: Implications for spastic muscle | Davis, JF; Khir, AW; Barber, L; Reeves, ND; Khan, T; DeLuca, M; Mohagheghi, AA | 2020 | 10.1016/j.mehy.2020.110199 |  |  |  |  | X |  | T/A |  |
| Neuromuscular effects of dorsiflexor training with and without blood flow restriction | Kjeldsen, SS; Næss-Schmidt, ET; Hansen, GM; Nielsen, JF; Stubbs, PW | 2019 | 10.1016/j.heliyon.2019.e02341 | X |  | X |  | X |  | FT |  |
| Whole-body vibration on parallel bar device for gait and balance rehabilitation in stroke patients | de Morais, AV; Tomaz, G, Jr; Lazzareschi, L; de Almeida, DV; dos Santos, MF; da Silva Boschi, SRM; Martini, SC; Scardovelli, TA; da Silva, AP | 2019 | 10.1007/s42600-019-00014-1 |  | X |  |  | X |  | FT |  |
| Isometric training and long-term adaptations: Effects of muscle length, intensity, and intent: A systematic review | Oranchuk, DJ; Storey, AG; Nelson, AR; Cronin, JB | 2019 | 10.1111/sms.13375 |  |  |  |  | X |  | T/A |  |
| Effects of lengthening velocity during eccentric training on vastus lateralis muscle hypertrophy | Marzilger, R; Bohm, S; Mersmann, F; Arampatzis, A | 2019 | 10.3389/fphys.2019.00957 | X | X |  |  | X |  | T/A |  |
| Rehabilitation for Geriatric Patients | LoGiudice, RJ; Starr, L | 2018 | 10.1002/9781119380627 | X |  |  |  |  |  | T/A |  |
| Physiological responses to different neuromuscular movement task during eccentric bench press | Wilk, M; Stastny, P; Golas, A; Nawrocka, M; Jelen, K; Zajac, A; Tufano, JJ | 2018 |  | X | X |  |  |  |  | FT |  |
| Effects of wearing a compression garment during night sleep on recovery from high-intensity eccentric-concentric quadriceps muscle fatigue | Shimokochi, Y; Kuwano, S; Yamaguchi, T; Abutani, H; Shima, N | 2017 | 10.1519/JSC.0000000000002116 | X | X |  |  |  |  | T/A |  |
| Gelatinases and physical exercise: A systematic review of evidence from human studies | Lo Presti, R; Hopps, E; Caimi, G | 2017 | 10.1097/MD.0000000000008072 | X | X |  | X | X |  | T/A |  |
| Similar movements are associated with drastically different muscle contraction velocities | Hagen, DA; Valero-Cuevas, FJ | 2017 | 10.1016/j.jbiomech.2017.05.019 | X | X |  |  | X |  | T/A |  |
| Clinical applications of iso-inertial, eccentric-overload (YoYo™) resistance exercise | Tesch, PA; Fernandez-Gonzalo, R; Lundberg, TR | 2017 | 10.3389/fphys.2017.00241 |  |  |  |  | X |  | T/A |  |
| Moderate load eccentric exercise; A distinct novel training modality | Hoppeler, H | 2016 | 10.3389/fphys.2016.00483 |  |  |  |  | X |  | T/A |  |
| New approaches to visual rehabilitation training for patients with visual field defects | Li, M; Zhu, W; Sun, X | 2015 | 10.3760/cma.j.issn.0412-4081.2015.07.020 |  | X |  |  |  |  | T/A |  |
| Development of a portable gait rehabilitation system for home-visit rehabilitation | Yano, H; Tanaka, N; Kamibayashi, K; Saitou, H; Iwata, H | 2015 | 10.1155/2015/849831 |  | X | X |  | X |  | T/A |  |
| Computations underlying the visuomotor transformation for smooth pursuit eye movements | Scott Murdison, T; Leclercq, G; Lefèvre, P; Blohm, G | 2015 | 10.1152/jn.00273.2014 |  | X | X |  | X |  | T/A |  |
| C-tactile fibers contribute to cutaneous allodynia after eccentric exercise | Nagi, SS; Mahns, DA | 2013 | 10.1016/j.jpain.2013.01.009 | X | X |  |  | X |  | T/A |  |
| Peroneus quartus and functional ankle instability | Lotito, G; Pruvost, J; Collado, H; Coudreuse, J-M; Bensoussan, L; Curvale, G; Viton, J-M; Delarque, A | 2011 | 10.1016/j.rehab.2011.05.004 | X | X | X |  | X |  | T/A |  |
| Cystic transverse limb of the articular branch: A pathognomonic sign for peroneal intraneural ganglia at the superior tibiofibular joint | Spinner, RJ; Desy, NM; Amrami, KK | 2006 | 10.1227/01.NEU.0000219820.31012.22 | X | X | X | X | X |  | T/A |  |
| Enhanced temporal summation of pressure pain in the trapezius muscle after delayed onset muscle soreness | Nie, H; Arendt-Nielsen, L; Madeleine, P; Graven-Nielsen, T | 2006 | 10.1007/s00221-005-0196-6 | X | X | X |  | X |  | T/A |  |
| Upper extremity movement pattern of a common drinking task in well elderly women: A pilot study | Maitra, KK; Junkins, MD | 2004 | 10.1002/oti.198 | X |  | X |  | X |  | T/A |  |
| The influence of eccentric contractions and stretch on alpha motoneuron excitability in normal subjects and subjects with spasticity. | Rochester, L; Vujnovich, A; Newstead, D; Williams, M | 2001 |  |  |  | X |  |  |  | T/A |  |
| Aging muscle: Functional consequences, assessment, rehabilitation program | Dehail, P; Bourdel-Marchasson, I | 2001 |  |  |  |  |  | X |  | T/A |  |
| Home program of physical therapy: Effect on disabilities of patients with total hip arthroplasty | Sashika, H; Matsuba, Y; Watanabe, Y | 1996 | 10.1016/S0003-9993(96)90111-2 | X | X |  |  |  |  | T/A |  |
| Muscle function after exercise-induced muscle damage and rapid adaptation | Clarkson, PM; Nosaka, K; Braun, B | 1992 | 10.1249/00005768-199205000-00004 |  |  | X |  | X |  | T/A |  |
| Formulation and Simulation of the Neuron Response to Temperature Stimulation | Yamaura, I; Matsumoto, G | 1973 | 10.11239/jsmbe1963.11.395 | X |  |  |  |  | X | T/A |  |
| Eccentric Exercise Training: Modalities, Applications and Perspectives | Isner-Horobeti, ME; Dufour, SP; Vautravers, P; Geny, B; Coudeyre, E; Richard, R |  | 10.1007/s40279-013-0052-y |  |  |  |  | X |  | T/A |  |
| MUSCLE PROTEIN-CHANGES FOLLOWING ECCENTRIC EXERCISE IN HUMANS | Reischman, F; Scordilis, SP; Clarkson, PM; Evans, WJ | 1991 | 10.1007/BF00571547 |  |  |  |  | X |  | T/A |  |
| Eccentric exercise induces chronic alterations in musculoskeletal nociception in the rat | Alvarez, P; Levine, JD; Green, PG | 2010 | 10.1111/j.1460-9568.2010.07359.x | X | X |  |  | X |  | T/A |  |
| Eccentric training for motor rehabilitation of Parkinsonian patients | Dini, M; Corbianco, S; Ciappetta, C; Bongioanni, P; Rossi, B | 2009 |  |  |  |  |  |  | X | T/A |  |
| TRANSCRIPTIONAL DEFICITS IN OXIDATIVE PHOSPHORYLATION WITH STATIN MYOPATHY | Hubal, MJ; Reich, KA; De Biase, A; Bilbie, C; Clarkson, PM; Hoffman, EP; Thompson, PD | 2011 | 10.1002/mus.22081 |  | X |  | X |  |  | T/A |  |
| Adenosine A(3) receptor stimulation induces protection of skeletal muscle from eccentric exercise-mediated injury | Wang, RB; Urso, ML; Zambraski, EJ; Rader, EP; Campbell, KP; Liang, BT | 2010 | 10.1152/ajpregu.00060.2010 | X | X |  |  | X |  | T/A |  |
| Enhanced Corticospinal Excitability and Volitional Drive in Response to Shortening and Lengthening Strength Training and Changes Following Detraining | Tallent, J; Goodall, S; Gibbon, KC; Hortobagyi, T; Howatson, G | 2017 | 10.3389/fphys.2017.00057 | X |  |  |  |  |  | T/A |  |
| Distinct brain activation patterns for human maximal voluntary eccentric and concentric muscle actions | Fang, Y; Siemionow, V; Sahgal, V; Xiong, FQ; Yue, GH | 2004 | 10.1016/j.brainres.2004.07.035 | X | X | X |  | X |  | T/A |  |
| Update of Nutritional Antioxidants and Antinociceptives on Improving Exercise-Induced Muscle Soreness | Leelayuwat, N |  | 10.1016/B978-0-12-805094-1.00019-8 |  |  |  |  | X |  | T/A |  |
| FURTHER IMPAIRMENT OF MUSCLE PHOSPHATE KINETICS BY LENGTHENING EXERCISE IN DMD BMD CARRIERS - AN IN-VIVO P-31-NMR SPECTROSCOPY STUDY | Barbiroli, B; McCully, KK; Iotti, S; Lodi, R; Zaniol, P; Chance, B | 1993 | 10.1016/0022-510X(93)90192-2 |  | X | X |  | X |  | T/A |  |
| Greater movement-related cortical potential during human eccentric versus concentric muscle contractions | Fang, Y; Siemionow, V; Sahgal, V; Xiong, FQ; Yue, GH | 2001 | 10.1152/jn.2001.86.4.1764 | X | X |  |  | X |  | T/A |  |
| Implications of Impaired Endurance Performance following Single Bouts of Resistance Training: An Alternate Concurrent Training Perspective | Doma, K; Deakin, GB; Bentley, DJ | 2017 | 10.1007/s40279-017-0758-3 | X |  |  |  | X |  | T/A |  |
| Regional increases in brain signal variability are associated with pain intensity reductions following repeated eccentric exercise bouts | Boissoneault, J; Sevel, L; Stennett, B; Alappattu, M; Bishop, M; Robinson, M | 2020 | 10.1002/ejp.1532 | X |  |  |  | X |  | T/A |  |
| Acute effects from the half-squat performed using a repetition versus differential approach in youth soccer players | Coutinho, D; Abade, E; Goncalves, B; Santos, S; Schollhorn, W; Sampaio, J | 2022 | 10.1186/s13102-022-00413-5 | X |  |  |  | X |  | T/A |  |
| Does exercise-induced muscle damage impair subsequent motor skill learning? | Leite, CMF; Profeta, VLD; Chaves, SFN; Benine, RPC; Bottaro, M; Ferreira, JB | 2019 | 10.1016/j.humov.2019.102504 | X | X |  |  |  |  | T/A |  |
| Neuromuscular disturbance outlasts other symptoms of exercise-induced muscle damage | Deschenes, MR; Brewer, RE; Bush, JA; McCoy, RW; Volek, JS; Kraemer, WJ | 2000 | 10.1016/S0022-510X(00)00258-6 | X | X |  |  |  |  | T/A |  |
| ECCENTRIC CONTRACTIONS INDUCE RAPID ISOMETRIC TORQUE DROP IN DYSTROPHIN-DEFICIENT DOGS | Tegeler, CJ; Grange, RW; Bogan, DJ; Markert, CD; Case, D; Kornegay, JN; Childers, MK | 2010 | 10.1002/mus.21699 | X | X |  |  | X |  | T/A |  |
| Fiber-type susceptibility to eccentric contraction-induced damage of hindlimb-unloaded rat AL muscles | Vijayan, K; Thompson, JL; Norenberg, KM; Fitts, RH; Riley, DA | 2001 | 10.1152/jappl.2001.90.3.770 | X | X |  |  | X |  | T/A |  |
| Characterization of recovered walking patterns and motor control after contusive spinal cord injury in rats | Hansen, CN; Linklater, W; Santiago, R; Fisher, LC; Moran, S; Buford, JA; Basso, DM | 2012 | 10.1002/brb3.71 | X | X |  |  | X |  | T/A |  |
| ACTN3 genotype is associated with increases in muscle strength in response to resistance training in women | Clarkson, PM; Devaney, JM; Gordish-Dressman, H; Thompson, PD; Hubal, MJ; Urso, M; Price, TB; Angelopoulos, TJ; Gordon, PM; Moyna, NM; Pescatello, LS; Visich, PS; Zoeller, RF; Seip, RL; Hoffman, EP | 2005 | 10.1152/japplphysiol.01139.2004 | X |  |  | X |  |  | T/A |  |
| Psychological Influences Predict Recovery Following Exercise Induced Shoulder Pain | Parr, J; Borsa, P; Fillingim, R; Kaiser, K; Tillman, MD; Manini, TM; Gregory, C; George, S | 2014 | 10.1055/s-0033-1345179 | X | X |  |  | X |  | T/A |  |
| Response of rat muscle to acute resistance exercise defined by transcriptional and translational profiling | Chen, YW; Nader, GA; Baar, KR; Fedele, MJ; Hoffman, EP; Esser, KA | 2002 | 10.1113/jphysiol.2002.021220 | X | X |  | X | X |  | T/A |  |
| Electrically stimulated hind limb muscle contractions increase adult hippocampal astrogliogenesis but not neurogenesis or behavioral performance in male C57BL/6J mice | Gardner, JC; Dvoretskiy, SV; Yang, YY; Venkataraman, S; Lange, DA; Li, SP; Boppart, AL; Kim, N; Rendeiro, C; Boppart, MD; Rhodes, JS | 2020 | 10.1038/s41598-020-76356-z | X | X |  | X | X |  | T/A |  |
| Sense of Effort Determines Lower Limb Force Production During Dynamic Movement in Individuals With Poststroke Hemiparesis | Simon, AM; Kelly, BM; Ferris, DP | 2009 | 10.1177/1545968308331163 |  | X | X |  |  |  | T/A |  |
| Neural adaptations with chronic physical activity | Enoka, RM | 1997 | 10.1016/S0021-9290(96)00170-4 | X |  |  |  | X |  | T/A |  |
| Effect of Load, Angle, and Contraction Type on Clinically Assessed Knee Joint Position Sense | Haggerty, AL; Simon, JE; Grooms, DR; Russell, JA | 2021 | 10.1123/jsr.2020-0552 | X | X |  |  | X |  | T/A |  |
| Muscle force redistributes segmental power for body progression during walking | Neptune, RR; Zajac, FE; Kautz, SA | 2004 | 10.1016/S0966-6362(03)00062-6 | X | X |  |  | X |  | T/A |  |
| Knee strength measurement: Can we switch between isokinetic dynamometers? | Paulus, J; Pauls, J; Radizzi, L; Krecke, L; Bury, T; Le Goff, C; Laly, A; Schwartz, C; Forthomme, B; Kaux, JF; Croisier, JL |  | 10.3233/IES-193193 | X | X |  |  | X |  | T/A |  |
| Alterations in Osteopontin Modify Muscle Size in Females in Both Humans and Mice | Hoffman, EP; Gordish-Dressman, H; Mclane, VD; Devaney, JM; Thompson, PD; Visich, P; Gordon, PM; Pescatello, LS; Zoeller, RF; Moyna, NM; Angelopoulos, TJ; Pegoraro, E; Cox, GA; Clarkson, PM | 2013 | 10.1249/MSS.0b013e31828093c1 |  | X |  | X | X | X | T/A |  |
| SENSITIVITY OF MUSCLE PROTON SPIN-SPIN RELAXATION-TIME AS AN INDEX OF MUSCLE ACTIVATION | Yue, G; Alexander, AL; Laidlaw, DH; Gmitro, AF; Unger, EC; Enoka, RM | 1994 | 10.1152/jappl.1994.77.1.84 | X | X |  |  | X |  | T/A |  |
| Damaged muscle fibers might masquerade as hybrid fibers - a cautionary note on immunophenotyping mouse muscle with mouse monoclonal antibodies | Begam, M; Roche, JA |  | 10.4081/ejh.2018.2896 | X | X |  | X | X | X | T/A |  |
| CONTRALESIONAL SPATIAL BIAS IN CHRONIC HEMIANOPIA: THE ROLE OF (EC)CENTRIC FIXATION, SPATIAL CUEING AND VISUAL SEARCH | Kuhn, C; Bublak, P; Jobst, U; Rosenthal, A; Reinhart, S; Kerkhoff, G | 2012 | 10.1016/j.neuroscience.2012.03.020 |  | X |  |  | X |  | T/A |  |
| Variable rescue of microtubule and physiological phenotypes in mdx muscle expressing different miniaturized dystrophins | Nelson, DM; Lindsay, A; Judge, LM; Duan, D; Chamberlain, JS; Lowe, DA; Ervasti, JM | 2018 | 10.1093/hmg/ddy113 | X | X |  | X | X | X | T/A |  |
| A review of current literature on physiological tests and soft tissue biomarkers applicable to work-related upper limb disorders | Saxton, JM | 2000 | 10.1093/occmed/50.2.121 | X | X |  |  | X |  | T/A |  |
| The mechanisms of massage and effects on performance, muscle recovery and injury prevention | Weerapong, P; Hume, PA; Koht, GS |  | 10.2165/00007256-200535030-00004 | X | X |  |  | X |  | T/A |  |
| Decomposition of surface EMG signals from cyclic dynamic contractions | De Luca, CJ; Chang, SS; Roy, SH; Kline, JC; Nawab, SH | 2015 | 10.1152/jn.00555.2014 | X | X | X |  | X |  | T/A |  |
| Thigh muscle segmentation of chemical shift encoding-based water-fat magnetic resonance images: The reference database MyoSegmenTUM | Schlaeger, S; Freitag, F; Klupp, E; Dieckmeyer, M; Weidlich, D; Inhuber, S; Deschauer, M; Schoser, B; Bublitz, S; Montagnese, F; Zimmer, C; Rummeny, EJ; Karampinos, DC; Kirschke, JS; Baum, T | 2018 | 10.1371/journal.pone.0198200 | X | X | X |  | X |  | T/A |  |
| Sarcomere lesion damage occurs mainly in slow fibers of reloaded rat adductor longus muscles | Vijayan, K; Thompson, JL; Riley, DA | 1998 | 10.1152/jappl.1998.85.3.1017 | X | X |  | X | X |  | T/A |  |
| Five myofibrillar lesion types in eccentrically challenged, unloaded rat adductor longus muscle - A test model | Thompson, JL; Balog, EM; Fitts, RH; Riley, DA | 1999 | 10.1002/(SICI)1097-0185(19990101)254:1<39::AID-AR6>3.0.CO;2-K | X | X |  | X | X |  | T/A |  |
| Non-invasive assessment of muscle injury in healthy and dystrophic animals with electrical impedance myography | Sanchez, B; Iyer, SR; Li, J; Kapur, K; Xu, S; Rutkove, SB; Lovering, RM | 2017 | 10.1002/mus.25559 | X | X |  | X | X |  | T/A |  |
| Correlation of personality assessments with standard selection criteria for neurosurgical residency applicants | Lubelski, D; Healy, AT; Friedman, A; Ferraris, D; Benzel, EC; Schlenk, R | 2016 | 10.3171/2015.7.JNS15880 | X | X | X | X | X |  | T/A |  |
| Endpoint measures in the mdx mouse relevant for muscular dystrophy pre-clinical studies | Kobayashi, YM; Rader, EP; Crawford, RW; Campbell, KP | 2012 | 10.1016/j.nmd.2011.08.001 | X | X |  | X | X |  | T/A |  |
| CORTICAL VOLUNTARY ACTIVATION OF THE HUMAN KNEE EXTENSORS CAN BE RELIABLY ESTIMATED USING TRANSCRANIAL MAGNETIC STIMULATION | Sidhu, SK; Bentley, DJ; Carroll, TJ | 2009 | 10.1002/mus.21064 | X | X |  |  | X |  | T/A |  |
| An in vivo rodent model of contraction-induced injury in the quadriceps muscle | Pratt, SJP; Lawlor, MW; Shah, SB; Lovering, RM | 2012 | 10.1016/j.injury.2011.09.015 | X | X |  | X | X |  | T/A |  |
| Chronic administration of a leupeptin-derived calpain inhibitor fails to ameliorate severe muscle pathology in a canine model of Duchenne muscular dystrophy | Childers, MK; Bogan, JR; Bogan, DJ; Greiner, H; Holder, M; Grange, RW; Kornegay, JN |  | 10.3389/fphar.2011.00089 | X | X |  | X | X |  | T/A |  |
| Visual perceptions of head-fixed and trunk-fixed anterior posterior axes | Darling, WG; Butler, AJ; Williams, TE | 1996 |  | X | X | X |  | X |  | T/A |  |
| Muscular torque generation during imposed joint rotation: torque-angle relationships when subjects' only goal is to make a constant effort | Burgess, PR; Jones, LF; Buhler, CF; Dewald, JPA; Zhang, LQ; Rymer, WZ |  | 10.1080/0899022021000037791 | X | X | X |  | X |  | T/A |  |
| SERCA1 overexpression minimizes skeletal muscle damage in dystrophic mouse models | Mazala, DAG; Pratt, SJP; Chen, DP; Molkentin, JD; Lovering, RM; Chin, ER | 2015 | 10.1152/ajpcell.00341.2014 | X | X |  | X | X |  | T/A |  |
| Lower limb force production and bilateral force asymmetries are based on sense of effort | Simon, AM; Ferris, DP | 2008 | 10.1007/s00221-008-1288-x | X | X | X |  | X |  | T/A |  |
| Dysferlin stabilizes stress-induced Ca2+ signaling in the transverse tubule membrane | Kerr, JP; Ziman, AP; Mueller, AL; Muriel, JM; Kleinhans-Welte, E; Gumerson, JD; Vogel, SS; Ward, CW; Roche, JA; Bloch, RJ | 2013 | 10.1073/pnas.1307960110 | X | X |  | X | X |  | T/A |  |
| The Proton Pump Inhibitor Lansoprazole Improves the Skeletal Phenotype in Dystrophin Deficient mdx Mice | Sali, A; Many, GM; Gordish-Dressman, H; van der Meulen, JH; Phadke, A; Spurney, CF; Cnaan, A; Hoffman, EP; Nagaraju, K | 2013 | 10.1371/journal.pone.0066617 | X | X |  | X | X |  | T/A |  |
| Understanding muscle coordination of the human leg with dynamical simulations | Zajac, FE | 2002 | 10.1016/S0021-9290(02)00046-5 | X | X | X |  | X |  | T/A |  |
| beta-Sarcoglycan gene transfer decreases fibrosis and restores force in LGMD2E mice | Pozsgai, ER; Griffin, DA; Heller, KN; Mendell, JR; Rodino-Klapac, LR | 2016 | 10.1038/gt.2015.80 | X | X |  | X | X |  | T/A |  |
| Effects of Reinnervation of the Biarticular Shoulder-Elbow Muscles on Joint Kinematics and Electromyographic Patterns of the Feline Forelimb during Downslope Walking | Livingston, BP; Nichols, TR |  | 10.1159/000371542 |  | X | X |  | X |  | T/A |  |
| Contributions of the individual ankle plantar flexors to support, forward progression and swing initiation during walking | Neptune, RR; Kautz, SA; Zajac, FE | 2001 | 10.1016/S0021-9290(01)00105-1 | X | X | X |  | X |  | T/A |  |
| Losartan Restores Skeletal Muscle Remodeling and Protects Against Disuse Atrophy in Sarcopenia | Burks, TN; Andres-Mateos, E; Marx, R; Mejias, R; Van Erp, C; Simmers, JL; Walston, JD; Ward, CW; Cohn, RD | 2011 | 10.1126/scitranslmed.3002227 | X | X | X | X | X |  | T/A |  |
| DYSTROPHIN-DEFICIENT MDX MUSCLE-FIBERS ARE PREFERENTIALLY VULNERABLE TO NECROSIS INDUCED BY EXPERIMENTAL LENGTHENING CONTRACTIONS | Weller, B; Karpati, G; Carpentier, S | 1990 | 10.1016/0022-510X(90)90005-8 | X | X | X | X | X |  | T/A |  |
| Early response of heat shock proteins to functional overload of the soleus and plantaris in rats and mice | Huey, KA; Burdette, S; Zhong, H; Roy, RR | 2010 | 10.1113/expphysiol.2010.054692 | X | X | X | X | X |  | T/A |  |
| Immunohistochemical myofiber typing and high-resolution myofibrillar lesion detection in LR White embedded muscle | Thompson, JL; Vijayan, K; Riley, DA | 2000 | 10.1002/1097-0029(20000615)49:6<589::AID-JEMT9>3.0.CO;2-8 | X | X | X | X | X |  | T/A |  |
| Mechanisms Mediating Vibration-Induced Chronic Musculoskeletal Pain Analyzed in the Rat | Dina, OA; Joseph, EK; Levine, JD; Green, PG | 2010 | 10.1016/j.jpain.2009.08.007 | X | X | X | X | X |  | T/A |  |
| Genetic deletion of trkB.T1 increases neuromuscular function | Dorsey, SG; Lovering, RM; Renn, CL; Leitch, CC; Liu, XY; Tallon, LJ; Sadzewicz, LD; Pratap, A; Ott, S; Sengamalay, N; Jones, KM; Barrick, C; Fulgenzi, G; Becker, J; Voelker, K; Talmadge, R; Harvey, BK; Wyatt, RM; Vernon-Pitts, E; Zhang, C; Shokat, K; Fraser-Liggett, C; Balice-Gordon, RJ; Tessarollo, L; Ward, CW | 2012 | 10.1152/ajpcell.00469.2010 | X | X | X | X | X |  | T/A |  |

T/A:title/abstract; FT: full text

**Supplementary File 5.** Adherence scoring for the ACSM guideline recommendations for resistance training, from Hendrey et al (2018).

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Frequency** | **Intensity** | **Type of exercise** | **Specificity** | **Repetitions** | **Sets** | **Patterns** | **Progressivity** |  | **TOTAL** |
| **Rating** | 0 : < 2d/wk1: ≥ 2d/wk | 0 : RM/ max force : not determined0 : not based on ACSM guidelines1 : adapted and adjusted to participant  | 0 : not all major muscle groups1 : all major muscle groups | 0 : no0,5 : partially, RoM or contraction type1 : RoM and contraction type | 0 : not adapted/precised1 : precised | 0 : not detailed1 : adapted to objective | 0 : <1-2 minutes (between sets), or <48h (between sessions)0.5 : partially, between sets or sessions1: between sets and between sessions | 0 : no progression or reported1 : progression |  |  |
| **Study** |  |  |  |  |  |  |  |  |  |  |
| Lattouf 2021 | 1 | 1 | 0 | 0.5 | 1 | 1 | 0.5 | 0 |  | **5** |
| Kadkhodaie 2020 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |  | **6** |
| Dibble 2015 | 1 | 1 | 0 | 0.5 | 0 | 0 | 0.5 | 1 |  | **4** |
| Clarke 2012 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  | **8** |
| Hayes 2011 | 1 | 0 | 1 | 0.5 | 0 | 0 | 1 | 1 |  | **4.5** |
| Dibble 2009 | 1 | 1 | 0 | 0.5 | 0 | 0 | 0.5 | 1 |  | **4** |
| Engardt 1995 | 1 | 1 | 0 | 0.5 | 0 | 0 | 1 | 1 |  | **4.5** |
| Fernandez-Gonzalo 2016 | 1 | 0 | 0 | 0.5 | 1 | 1 | 0.5 | 0 |  | **3.5** |
| Lee 2013 | 1 | 0 | 0 | 0.5 | 1 | 1 | 0.5 | 0 |  | **4** |
| Dibble 2006 | 1 | 1 | 0 | 0.5 | 0 | 0 | 0.5 | 1 |  | **4** |

Hendrey G, Holland AE, Mentiplay BF, Clark RA, Williams G. Do Trials of Resistance Training to Improve Mobility After Stroke Adhere to the American College of Sports Medicine Guidelines? A Systematic Review. Archives of physical medicine and rehabilitation. 2018;99(3): 584-597 e51

**Supplementary File 6.** Standardised mean difference (95% CI) of effect of eccentric resistance training versus comparator (usual rehabilitation, or control) on muscle structure (A, n=83), muscle activity (B, n=54), spasticity (C, n=68), balance (D, n=66), and risk of fall (E, n=77) immediately after the intervention.



