

**Table S1.** Searches in the individual databases

|   |
|---|
| <p><b>Ageline</b><br/>         (((DE "Stroke") OR (DE "Brain Damage") OR (Stroke OR cerebrovascular accident OR cva OR acquired brain injury OR traumatic brain injury OR head injury OR tbi OR abi OR hemiplegia OR hemiparesis OR upper motor neuron lesion)) AND ((sens* OR stimulat* OR somatosens*) OR (propriocept* OR afferent OR (mobilisation OR mobilization OR mobilize OR mobilise) OR manipulat*)) AND ((DE "Feet") OR (DE "Legs") OR (foot OR leg OR lower limb OR lower extremity)) AND ((DE "Walking") OR (walk* OR gait OR mobil* OR step OR stance OR ambulat* OR weight bearing OR weight-bearing))) NOT (functional electrical stimulation OR FES)</p>  |
| <p><b>AMED (Allied and Complementary Medicine)</b></p> <ol style="list-style-type: none"> <li>1 stroke/</li> <li>2 Cerebrovascular accident/</li> <li>3 Brain injuries/</li> <li>4 Head injuries/</li> <li>5 Hemiplegia/</li> <li>6 (stroke or cerebrovascular accident or CVA or acquired brain injury or traumatic brain injury or head injury or TBI or ABI or hemiplegia or hemiparesis or upper motor neuron lesion).mp. [mp=abstract, heading words, title]</li> <li>7 1 or 2 or 3 or 4 or 5 or 6</li> <li>8 Sensation disorders/</li> <li>9 Electric stimulation/</li> <li>10 Proprioception/</li> <li>11 Mobilisation/</li> <li>12 (sens* or stimulat* or somatosens* or propriocept* or afferent or mobilisation or manipulat* or sensory or sensation or sensibility).mp. [mp=abstract, heading words, title]</li> <li>13 8 or 9 or 10 or 11 or 12</li> <li>14 Foot/</li> <li>15 Leg/</li> <li>16 (foot or leg or lower limb or lower extremity).mp. [mp=abstract, heading words, title]</li> <li>17 14 or 15 or 16</li> <li>18 Walking/</li> <li>19 Gait/</li> <li>20 Weight bearing/</li> <li>21 (walk* or gait or mobil* or step or stance or ambulat* or weight bearing or weight-bearing).mp. [mp=abstract, heading words, title]</li> <li>22 18 or 19 or 20 or 21</li> <li>23 randomised controlled trial.mp. [mp=abstract, heading words, title]</li> <li>24 Randomized controlled trials/</li> <li>25 23 or 24</li> <li>26 Functional electric stimulation/</li> <li>27 functional electric stimulation.mp. [mp=abstract, heading words, title]</li> <li>28 26 or 27</li> <li>29 7 and 13 and 17 and 22 and 25</li> <li>30 29 not 28</li> </ol> |
| <p><b>APAPsycArticles</b><br/>         (((MAINSUBJECT.EXACT("Afferent Pathways") OR MAINSUBJECT.EXACT("Proprioception") OR MAINSUBJECT.EXACT("Afferent Stimulation") OR (sensory OR sensation OR sensibility OR sens* OR stimulat* OR somatosens* OR propriocept* OR afferent OR mobilization OR mobilisation OR manipulat*)) AND (foot OR leg OR "lower limb" OR "lower extremity") AND (MAINSUBJECT.EXACT("Walking") OR MAINSUBJECT.EXACT("Gait") OR (walk* OR gait OR mobil* OR step OR stance OR ambulat* OR "weight bearing" OR "weight-bearing"))) AND ((MAINSUBJECT.EXACT("Cerebrovascular Accidents") OR MAINSUBJECT.EXACT("Traumatic Brain Injury") OR MAINSUBJECT.EXACT("Hemiparesis") AND MAINSUBJECT.EXACT("Hemiplegia")) OR (MAINSUBJECT.EXACT("Cerebrovascular Accidents") OR MAINSUBJECT.EXACT("Traumatic Brain Injury") OR MAINSUBJECT.EXACT("Hemiparesis") AND MAINSUBJECT.EXACT("Hemiplegia")) OR</p>   |

|  |   |  |              |         |
|--|---|--|--------------|---------|
| (MAINSUBJECT.EXACT("Cerebrovascular Accidents") OR MAINSUBJECT.EXACT("Traumatic Brain Injury") OR MAINSUBJECT.EXACT("Hemiparesis") OR MAINSUBJECT.EXACT("Hemiplegia") OR (stroke OR "cerebrovascular accident" OR CVA OR "acquired brain injury" OR "head injury" OR TBI OR ABI OR hemiplegia OR hemiparesis OR "upper motor neuron lesion")) AND (("randomised controlled trial" OR "randomized controlled trial" OR RCT OR "randomised control trial" OR "randomized control trial") OR (MAINSUBJECT.EXACT("Randomized Controlled Trials") OR MAINSUBJECT.EXACT("Randomized Clinical Trials")))) NOT "functional electric stimulation") AND (la.exact("ENG") AND pd(20020101-20220331))  |   |  |              |         |
| <b>APAPsycInfo</b><br>(((MAINSUBJECT.EXACT("Afferent Pathways") OR MAINSUBJECT.EXACT("Proprioception") OR MAINSUBJECT.EXACT("Afferent Stimulation") OR (sensory OR sensation OR sensibility OR sens* OR stimulat* OR somatosens* OR propriocept* OR afferent OR mobilization OR mobilisation OR manipulat*)) AND (foot OR leg OR "lower limb" OR "lower extremity") AND (MAINSUBJECT.EXACT("Walking") OR MAINSUBJECT.EXACT("Gait") OR (walk* OR gait OR mobil* OR step OR stance OR ambulat* OR "weight bearing" OR "weight-bearing"))) AND ((MAINSUBJECT.EXACT("Cerebrovascular Accidents") OR MAINSUBJECT.EXACT("Traumatic Brain Injury") OR MAINSUBJECT.EXACT("Hemiparesis") AND MAINSUBJECT.EXACT("Hemiplegia")) OR (MAINSUBJECT.EXACT("Cerebrovascular Accidents") OR MAINSUBJECT.EXACT("Traumatic Brain Injury") OR MAINSUBJECT.EXACT("Hemiparesis") AND MAINSUBJECT.EXACT("Hemiplegia")) OR (MAINSUBJECT.EXACT("Cerebrovascular Accidents") OR MAINSUBJECT.EXACT("Traumatic Brain Injury") OR MAINSUBJECT.EXACT("Hemiparesis") OR MAINSUBJECT.EXACT("Hemiplegia") OR (stroke OR "cerebrovascular accident" OR CVA OR "acquired brain injury" OR "head injury" OR TBI OR ABI OR hemiplegia OR hemiparesis OR "upper motor neuron lesion")) AND (("randomised controlled trial" OR "randomized controlled trial" OR RCT OR "randomised control trial" OR "randomized control trial") OR (MAINSUBJECT.EXACT("Randomized Controlled Trials") OR MAINSUBJECT.EXACT("Randomized Clinical Trials")))) NOT "functional electric stimulation") AND (la.exact("ENG") AND pd(20020101-20220331)) |   |  |              |         |
| <b>CINAHL</b>  |   |  |              |         |
| #  | Query   | Limiters/Expanders                       | Last Run Via | Results |
| S1   | (MH "Stroke")   | Expanders - Apply equivalent subjects    |              |         |
|  | Search modes - Boolean/Phrase   | Interface - EBSCOhost Research Databases |              |         |
|  | Search Screen - Advanced Search   |  |              |         |
|  | Database - CINAHL Complete  |  |              |         |
| S2   | (MH "Brain Injuries")   | Expanders - Apply equivalent subjects    |              |         |
|  | Search modes - Boolean/Phrase   | Interface - EBSCOhost Research Databases |              |         |
|  | Search Screen - Advanced Search   |  |              |         |
|  | Database - CINAHL Complete  |  |              |         |
| S3   | (MH "Head Injuries")  | Expanders - Apply equivalent subjects    |              |         |
|  | Search modes - Boolean/Phrase   | Interface - EBSCOhost Research Databases |              |         |
|  | Search Screen - Advanced Search   |  |              |         |
|  | Database - CINAHL Complete  |  |              |         |
| S4   | (MH "Hemiplegia")   | Expanders - Apply equivalent subjects    |              |         |
|  | Search modes - Boolean/Phrase   | Interface - EBSCOhost Research Databases |              |         |
|  | Search Screen - Advanced Search   |  |              |         |
|  | Database - CINAHL Complete  |  |              |         |
| S5   | (MH "Motor Neuron Diseases")  | Expanders - Apply equivalent subjects    |              |         |
|  | Search modes - Boolean/Phrase   | Interface - EBSCOhost Research Databases |              |         |
|  | Search Screen - Advanced Search   |  |              |         |
|  | Database - CINAHL Complete  |  |              |         |
| S6   | Stroke OR cerebrovascular accident OR cva OR acquired brain injury OR traumatic brain injury OR head injury OR tbi OR abi OR hemiplegia OR hemiparesis OR upper motor neuron lesion | Expanders - Apply equivalent subjects    |              |         |
|  | Search modes - Boolean/Phrase   | Interface - EBSCOhost Research Databases |              |         |
|  | Search Screen - Advanced Search   |  |              |         |
|  | Database - CINAHL Complete  |  |              |         |
| S7   | S1 OR S2 OR S3 OR S4 OR S5 OR S6  | Expanders - Apply equivalent subjects    |              |         |
|  | Search modes - Boolean/Phrase   | Interface - EBSCOhost Research Databases |              |         |
|  | Search Screen - Advanced Search   |  |              |         |
|  | Database - CINAHL Complete  |  |              |         |
| S8   | (MH "Sensation")  | Expanders - Apply equivalent subjects    |              |         |
|  | Search modes - Boolean/Phrase   | Interface - EBSCOhost Research Databases |              |         |

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| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S9 (MH "Sensory Stimulation")  | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S10 (MH "Somatosensory Disorders")   | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S11 (MH "Proprioception")  | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S12 (MH "Joint Mobilization")  | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S13 sens* OR stimulat* OR somatosens* propriocept* OR afferent OR mobilisation OR mobilization OR mobilize OR mobilise OR manipulat* | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S14 S8 OR S9 OR S10 OR S11 OR S12 OR S13   | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S15 (MH "Foot")  | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S16 (MH "Leg")   | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S17 (MH "Lower Extremity")   | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S18 foot OR leg OR lower limb OR lower extremity   | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S19 S15 OR S16 OR S17 OR S18   | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S20 (MH "Walking")   | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S21 (MH "Gait")  | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S22 (MH "Step")  | Expanders - Apply equivalent subjects    |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases |

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| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S23 (MH "Weight-Bearing")  | Expanders - Apply equivalent subjects        |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S24 walk* OR gait OR mobil* OR step OR stance OR ambulat* OR weight bearing OR weight-bearing                                      | Expanders - Apply equivalent subjects        |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S25 S20 OR S21 OR S22 OR S23 OR S24  | Expanders - Apply equivalent subjects        |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S26 (MH "Randomized Controlled Trials")  | Expanders - Apply equivalent subjects        |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S27 randomised controlled trial* OR randomized controlled trial* OR RCT OR randomized control trial OR randomised controlled trial | Expanders - Apply equivalent subjects        |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S28 S26 OR S27   | Expanders - Apply equivalent subjects        |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S29 (MH "Electrical Stimulation, Functional")  | Expanders - Apply equivalent subjects        |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S30 functional electrical stimulation or fes   | Expanders - Apply equivalent subjects        |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S31 S29 OR S30   | Expanders - Apply equivalent subjects        |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S32 S7 AND S14 AND S19 AND S25 AND S28 NOT S31   | Expanders - Apply equivalent subjects        |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S33 S7 AND S14 AND S19 AND S25 AND S28 NOT S31   | Limiters - Published Date: 20020101-20211231 |
| Expanders - Apply equivalent subjects  |  |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S34 S7 AND S14 AND S19 AND S25 AND S28 NOT S31   | Limiters - Published Date: 20020101-20211231 |
| Expanders - Apply equivalent subjects  |  |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |
| Search Screen - Advanced Search  |  |
| Database - CINAHL Complete   |  |
| S35 S7 AND S14 AND S19 AND S25 AND S28 NOT S31   | Limiters - Published Date: 20020101-20211231 |
| Expanders - Apply equivalent subjects  |  |
| Search modes - Boolean/Phrase  | Interface - EBSCOhost Research Databases     |

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| <p>Search Screen - Advanced Search</p> <p>Database - CINAHL Complete</p> <p>S36 S7 AND S14 AND S19 AND S25 AND S28 NOT S31 Limiters - Published Date: 20020101-20220331; English Language; Human</p> <p>Expanders - Apply equivalent subjects</p> <p>Search modes - Boolean/Phrase Interface - EBSCOhost Research Databases</p> <p>Search Screen - Advanced Search</p> <p>Database - CINAHL Complete</p>   |
| <p><b>Cochrane Library</b></p> <p>#1 (stroke OR "cerebrovascular accident" OR brain injur* OR hemiplegia OR "traumatic brain injury" OR TBI OR "acquired brain injur*" OR ABI):ti,ab,kw AND ("sens* disorder*" OR "electric* stimulation" OR propriocept* or somastosen* or stimulat* or mobil*):ti,ab,kw AND (foot OR leg OR "lower limb*" OR "lower extremit*"):ti,ab,kw AND (walk* OR gait OR "weight-bearing" or "weight bearing" OR mobil* OR step* OR stance OR ambulat*):ti,ab,kw AND ("randomised clinical trial" OR "randomized clinical trial"):ti,ab,kw with (Word variations have been searched)</p> <p>#2 #1 NOT "functional electric* stimulation"</p>   |
| <p><b>Embase</b></p> <p>1 stroke/</p> <p>2 Cerebrovascular accident/</p> <p>3 Brain injuries/</p> <p>4 Head injuries/</p> <p>5 Hemiplegia/</p> <p>6 (stroke or cerebrovascular accident or CVA or acquired brain injury or traumtatic brain injury or head injury or TBI or ABI or hemiplegia or hemiparesis or upper motor neuron lesion).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]</p> <p>7 1 or 2 or 3 or 4 or 5 or 6</p> <p>8 Sensation disorders/</p> <p>9 Electric stimulation/</p> <p>10 Proprioception/</p> <p>11 Mobilisation/</p> <p>12 (sens* or stimulat* or somatosens* or propriocept* or afferent or mobilisation or manipulat* or sensory or sensation or sensibility).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]</p> <p>13 8 or 9 or 10 or 11 or 12</p> <p>14 Foot/</p> <p>15 Leg/</p> <p>16 (foot or leg or lower limb or lower extremity).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]</p> <p>17 14 or 15 or 16</p> <p>18 Walking/</p> <p>19 Gait/</p> <p>20 Weight bearing/</p> <p>21 (walk* or gait or mobil* or step or stance or ambulat* or weight bearing or weight-bearing).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]</p> <p>22 18 or 19 or 20 or 21</p> <p>23 randomised controlled trial.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]</p> <p>24 Randomized controlled trials/</p> <p>25 23 or 24</p> <p>26 Functional electric stimulation/</p> |

|                |  |
|----------------|--|
| 27             | functional electric stimulation.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]  |
| 28             | 26 or 27 2491  |
| 29             | 7 and 13 and 17 and 22 and 25  |
| 30             | 29 not 28  |
| 31             | limit 30 to (english language and yr="2002 - 2022")  |
| <b>Emcare</b>  |  |
| 1              | stroke/  |
| 2              | Cerebrovascular accident/  |
| 3              | Brain injuries/  |
| 4              | Head injuries/   |
| 5              | Hemiplegia/  |
| 6              | (stroke or cerebrovascular accident or CVA or acquired brain injury or traumatic brain injury or head injury or TBI or ABI or hemiplegia or hemiparesis or upper motor neuron lesion).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word] |
| 7              | 1 or 2 or 3 or 4 or 5 or 6   |
| 8              | Sensation disorders/   |
| 9              | Electric stimulation/  |
| 10             | Proprioception/  |
| 11             | Mobilisation/  |
| 12             | (sens* or stimulat* or somatosens* or propriocept* or afferent or mobilisation or manipulat* or sensory or sensation or sensibility).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word]  |
| 13             | 8 or 9 or 10 or 11 or 12   |
| 14             | Foot/  |
| 15             | Leg/   |
| 16             | (foot or leg or lower limb or lower extremity).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word]  |
| 17             | 14 or 15 or 16   |
| 18             | Walking/   |
| 19             | Gait/  |
| 20             | Weight bearing/  |
| 21             | (walk* or gait or mobil* or step or stance or ambulat* or weight bearing or weight-bearing).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word]   |
| 22             | 18 or 19 or 20 or 21   |
| 23             | randomised controlled trial.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word]   |
| 24             | Randomized controlled trials/  |
| 25             | 23 or 24   |
| 26             | Functional electric stimulation/   |
| 27             | functional electric stimulation.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word]   |
| 28             | 26 or 27   |
| 29             | 7 and 13 and 17 and 22 and 25  |
| 30             | 29 not 28  |
| <b>Medline</b> |  |
| S1             | (MH "Stroke")  |
| S2             | (MH "Brain Injuries")  |
| S3             | (MH "Brain Injuries, Traumatic")   |
| S4             | (MH "Head Injuries, Closed") OR (MH "Head Injuries, Penetrating")  |
| S5             | (MH "Hemiplegia")  |
| S6             | (MH "Motor Neuron Disease")  |

|   |   |
|---|---|
| S7  | Stroke OR cerebrovascular accident OR cva OR acquired brain injury OR traumatic brain injury OR head injury OR tbi OR abi OR  |
| S8  | S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7  |
| S9  | (MH "Sensation")  |
| S10   | (MH "Physical Stimulation")   |
| S11   | (MH "Somatosensory Disorders")  |
| S12   | (MH "Proprioception")   |
| S13   | (MH "Afferent Pathways")  |
| S14   | sens* OR stimulat* OR somatosens*   |
| S15   | propriocept* OR afferent OR ( mobilisation or mobilization or mobilize or mobilise ) OR manipul*  |
| S16   | S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15  |
| S17   | (MH "Foot")   |
| S18   | (MH "Leg")  |
| S19   | (MH "Lower Extremity")  |
| S20   | foot OR leg OR lower limb OR lower extremity  |
| S21   | S17 OR S18 OR S19 OR S20  |
| S22   | (MH "Walking")  |
| S23   | (MH "Gait")   |
| S24   | (MH "Weight-Bearing")   |
| S25   | walk* OR gait OR mobil* OR step OR stance OR ambulat* OR weight bearing OR weight-bearing   |
| S26   | S22 OR S23 OR S24 OR S25  |
| S27   | randomised controlled trial* OR randomized controlled trial* OR RCT OR randomized control trial OR randomised controlled trial  |
| S28   | functional electrical stimulation OR FES  |
| S29   | S7 AND S16 AND S21 AND S26 AND S27  |
| S30   | S29 NOT S28   |
| S31   | S29 NOT S28   |
| S32   | S29 NOT S28   |
| Limiters - Date of Publication: 20020101-20221231 |   |
| Expanders - Apply equivalent subjects             |   |
| English Language                                  |   |
| <b>PEDro</b>                                      |   |
| Abstract & Title: somatosens* stroke              |   |
| Body part: Lower leg or knee                      |   |
| Published since: 2002                             |   |
| All terms matched with AND                        |   |
| <b>SPORTDiscus</b>                                |   |
| S1  | DE "STROKE"   |
| S2  | DE "BRAIN injuries"   |
| S3  | DE "HEMIPLEGIA"   |
| S4  | stroke OR cerebrovascular accident OR CVA OR acquired brain injur* OR traumatic brain injur* OR head injur* OR TBI OR ABI OR hemiplegia OR hemiparesis OR upper motor neuron lesion |
| S5  | S1 OR S3 OR S4  |
| S6  | DE "ELECTRIC stimulation"   |
| S7  | DE "PROPRIOCEPTION"   |
| S8  | DE "AFFERENT pathways"  |
| S9  | DE "MANIPULATION therapy"   |
| S10   | sens* OR stimula* OR somatosens* OR propriocept* OR afferent OR mobilisation OR mobilization OR manipul*  |
| S11   | S6 OR S7 OR S8 OR S9 OR S10   |
| S12   | DE "FOOT"   |
| S13   | DE "LEG"  |
| S14   | foot OR leg OR lower limb* OR lower extremit*   |
| S15   | S12 OR S13 OR S14   |

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| S16  | DE "WALKING"   |
| S17  | DE "GAIT disorders"  |
| S18  | DE "WEIGHT-bearing (Orthopedics)"  |
| S19  | walk* OR gait OR mobil* OR step OR stance OR ambulat* OR weight bearing OR weight-bearing                                  |
| S20  | S16 OR S17 OR S18 OR S19   |
| S21  | randomised controlled trial* OR randomized controlled trial OR RCT OR randomized control trial OR randomised control trial |
| S22  | functional electrical stimulation  |
| S23  | S5 AND S11 AND S15 AND S20 AND S21 NOT S22   |
| <b>Web of Science</b><br>((((TS=(stroke OR "cerebrovascular accident" OR "acquired brain injury" OR "traumatic brain injury" OR "head injury" OR TBI OR ABI OR hemiplegia OR hemiparesis OR "upper motor neuron lesion" )) AND TS=(sens* OR stimulat* OR somatosens* OR propriocept* OR afferent OR mobilisation OR mobilization OR manipulat* OR sensory OR sensation* OR sensibility)) AND TS=(foot OR leg OR lower extremit* OR lower limb*)) AND TS=(walk* OR gait OR mobil* OR step OR stance OR ambulat* OR "weight bearing" OR weight-bearing)) AND TS=("randomised controlled trial" OR "randomized controlled trial" OR "randomised control trial" OR "randomised control trial")) NOT TS=("functional electrical stimulation") |  |
| Database : Web of Science Core Collection  |  |



**Table S2.** Reasons for exclusion of full texts

| <b>Study/Report</b>          | <b>Reason for exclusion from full text</b>   |
|------------------------------|--|
| Alwhaibi et al. (2021)       | Visual and auditory stimulation as part of somatosensory training                                      |
| Bae et al. (2015)            | No ethical approval statement in the report  |
| Ertzgaard et al. (2018)      | Whole body stimulation, not focal. Another issue was the population – cerebral palsy and stroke mixed. |
| Hsu et al. (2013)            | Active movement from noxious stimulus  |
| In et al. (2021)             | No true control group  |
| Kim and Kang, Tae-Woo (2018) | Active movement encouraged   |
| Kwong et al. (2018a)         | No true control group  |
| Lau (2013)                   | Thesis   |
| Lee and Lee Gyuchang (2019)  | Active movement encouraged   |
| Lee et al. (2016)            | Active movement encouraged   |
| Lou et al. (2019)            | No ethical approval statement in the report  |
| Maupas et al. (2017)         | Not an RCT, no relevant outcome measure and active movement  |
| Mesci et al. (2009)          | NMES (EMG triggered)   |
| Morioka et al. (2009)        | No ethical approval statement in the report  |
| Park and Lee (2019)          | No ethical approval statement in the report and no true control  |
| Park et al. (2015)           | Not an RCT   |
| Seung-Mi Lee et al. (2017)   | No true control  |
| Sheffler et al. (2013)       | FES  |
| Sheffler et al. (2015)       | FES  |
| Sungkarat et al. (2011)      | Auditory feedback  |
| Unal et al. (2021)           | Treatment combined with exercises (active movement)  |
| van Vliet et al. 2005        | Not specifically somatosensory   |
| Xu et al. (2017)             | Active movement encouraged   |
| Yavuzer et al. (2006)        | NMES with muscle contraction   |

EMG=Electromyography; FES=Functional electrical stimulation; NMES=Neuromuscular electrical stimulation;  
RCT=Randomized controlled trial

**Table S3.** Additional information after screening reference lists and reading full texts of potential articles to include - in preparation for PRISMA flow diagram

Possible articles identified following hand search of reference lists n = 31

| Author(s) of report identified to check | Report it was identified from                 | Reason for not including/including report   |
|---|---|---|
| Byl et al. (2008)                       | Paoloni et al. (2010)                         | Upper limb  |
| Chen et al. (2010)                      | Ferreira et al. (2018)                        | Not an RCT  |
| Chen et al. (2011)                      | Goliwas et al. (2015)                         | Active movement away from stimulus  |
| Cho et al. (2013)                       | Suh et al. (2014)                             | INCLUDE   |
| Choi et al. (2020)                      | In et al. (2021)                              | No true control – both groups had taping  |
| Cordo et al. (2009)                     | Paoloni et al. (2010)                         | Involved active movement  |
| de Wit et al. (2004)                    | Ferreira et al. (2018)                        | Not somatosensory - AFOs  |
| Eckhardt et al. (2011)                  | Ferreira et al. (2018)                        | Not an RCT  |
| Esquenazi et al. (2009)                 | Ferreira et al. (2018)                        | Not RCT - Retrospective study looking at stroke records   |
| Fatone et al. (2009)                    | Ferreira et al. (2018)                        | Not an RCT  |
| Geiger et al. (2001)                    | Goliwas et al. (2015) and Lynch et al. (2007) | Visual feedback   |
| Gok et al. (Alptekin)* et al (2008)     | Goliwas et al. (2015)                         | Involved visual feedback  |
| Gök et al. (2003)                       | Ferreira et al. (2018)                        | Not an RCT  |
| Hillier & Dunsford (2006)               | Lynch et al. (2007)                           | Not an RCT – (n=3, case studies)  |
| Julkunen et al. (2005)                  | Lynch et al. (2007)                           | Not an RCT and upper limb   |
| Jung et al. (2017)                      | In et al. (2021)                              | INCLUDE   |
| Kluding et al. (2004)                   | Kluding and Santos (2008)                     | Not an RCT  |
| Kobayashi et al. (2011)                 | Ferreira et al. (2018)                        | Not an RCT  |
| Koseoglu et al. (2017)                  | In et al. (2021)                              |   |
| Lee et al. (2013)                       | Önal et al. (2022)                            | No true control and involved active movement  |
| Lim et al. (2019)                       | In et al. (2021)                              | No true control   |
| Morioka & Yagi (2003)                   | Lynch et al. (2007)                           | Exclude – no statement re ethical approval  |
| Ng & Hui Chan (2007)                    | In et al. (2021)/ Yan and Hui-Chan (2007)     | Exclude – no statement re ethical approval  |
| Ng & Hui Chan (2009)                    | In et al. (2021)/ Suh et al. (2014)           | INCLUDE   |
| Park et al. (2014)                      | Yen et al. (2019)                             | INCLUDE   |
| Smania et al. (2003)                    | Lynch et al. (2007)                           | Upper limb  |
| Steyvers et al. (2003)                  | Paoloni et al. (2010)                         | Not stroke  |
| Tyson et al. (2013)                     | Goliwas et al. (2015)/ Suh et al. (2014)      | Discussed between AA, PD and SH – cross over trial – excluded because of potential carryover of effects from one group to the other |
| Yavuzer et al. (2006)                   | Kluding and Santos (2008)                     | Exclude – muscle contraction  |

\*Study incorrectly referenced as Alptekin et al. instead of Gok et al. in the reference list of Goliwas et al.

Full texts read and added n= (4) – identified in green font in table S3.

Additional full texts read following screening of reference lists of final four additional included articles:

| Author(s) of article identified to check | Report it was identified from | Reason for not including/including report |
|--|-------------------------------|---|
| Chen et al. (2005)                       | Jung et al. (2017)            | No statement of approval                  |
| Laddha et al. (2016)                     | Jung et al. (2017)            | Muscle contraction                        |