

## Review information

### Authors

[Empty name]<sup>1</sup>

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Citation example: [Empty name]. NKR-nakke pico 2. Ledmobilisering vs. ingen ledmobilisering. Cochrane Database of Systematic Reviews [Year], Issue [Issue].

## Characteristics of studies

### Characteristics of included studies

#### *Cleland 2005*

<b>Methods</b>	
<b>Participants</b>	
<b>Interventions</b>	
<b>Outcomes</b>	
<b>Identification</b>	
<b>Notes</b>	From Gross (b) (2015)

### Risk of bias table

<b>Bias</b>	<b>Authors' judgement</b>	<b>Support for judgement</b>
Incomplete outcome data	Low risk	From Gross (b) (2015)
Blinding of outcome assessors	High risk	From Gross (b) (2015)
Sequence Generation	Low risk	From Gross (b) (2015)
Other sources of bias	Unclear risk	

Allocation concealment	Low risk	From Gross (b) (2015)
Blinding of participants and personnel	Low risk	From Gross (b) (2015)
Selective outcome reporting	Low risk	From Gross (b) (2015)

**Gonzalez-Iglesias 2009 JO**

<b>Methods</b>	
<b>Participants</b>	
<b>Interventions</b>	
<b>Outcomes</b>	
<b>Identification</b>	
<b>Notes</b>	From Gross (b) (2015)

**Risk of bias table**

<b>Bias</b>	<b>Authors' judgement</b>	<b>Support for judgement</b>
Incomplete outcome data	Low risk	From Gross (b) (2015)
Blinding of outcome assessors	High risk	From Gross (b) (2015)
Sequence Generation	Low risk	From Gross (b) (2015)
Other sources of bias	Unclear risk	
Allocation concealment	Low risk	From Gross (b) (2015)
Blinding of participants and personnel	High risk	From Gross (b) (2015)
Selective outcome reporting	Unclear risk	From Gross (b) (2015)

**Gonzalez-Iglesias 2009 MT**

<b>Methods</b>	
<b>Participants</b>	
<b>Interventions</b>	
<b>Outcomes</b>	
<b>Identification</b>	
<b>Notes</b>	From Gross (b) (2015)

**Risk of bias table**

<b>Bias</b>	<b>Authors' judgement</b>	<b>Support for judgement</b>
Incomplete outcome data	Low risk	From Gross (b) (2015)
Blinding of outcome assessors	High risk	
Sequence Generation	Low risk	From Gross (b) (2015)
Other sources of bias	Unclear risk	
Allocation concealment	Low risk	From Gross (b) (2015)
Blinding of participants and personnel	High risk	From Gross (b) (2015)
Selective outcome reporting	Unclear risk	From Gross (b) (2015)

**Hoving 2002**

<b>Methods</b>	<b>Study design:</b> Randomized controlled trial <b>Study grouping:</b> Parallel group
<b>Participants</b>	<b>Baseline Characteristics</b> Intervention <ul style="list-style-type: none"> <li>● <i>no of males (%)</i>: 43.3</li> <li>● <i>mean age (SD)</i>: 44.6 (12.4)</li> </ul>

	<ul style="list-style-type: none"> <li>● <i>symptom duration weeks</i>: 70 % &lt; 12 uger</li> <li>● <i>symptom characteristics</i>:</li> </ul> <p>Control</p> <ul style="list-style-type: none"> <li>● <i>no of males (%)</i>: 64 (43.7)</li> <li>● <i>mean age (SD)</i>: 45.9 (10.5)</li> <li>● <i>symptom duration weeks</i>: 81.3 % &lt; 12 uger</li> <li>● <i>symptom characteristics</i>:</li> </ul> <p><b>Included criteria:</b> The eligibility criteria were age between 18 and 70 years, pain or stiffness in the neck for at least 2 weeks, neck symptoms reproducible during physical examination, willingness to adhere to treatment and measurement regimens, no physical therapy or manual therapy for neck pain during the previous 6 months, no involvement in litigation, and written informed consent. Patients with concurrent headaches, nonradicular pain in the upper extremities, and low back pain were not excluded, but neck pain had to be the main symptom for all patients.</p> <p><b>Excluded criteria:</b> patients whose history, signs, and symptoms suggested a potential nonbenign cause (including previous surgery of the neck) or evidence of a specific pathologic condition, such as malignancy, neurologic disease, fracture, herniated disc, or systemic rheumatic disease</p> <p><b>Pretreatment:</b></p>
<b>Interventions</b>	<p><b>Intervention Characteristics</b></p> <p>Intervention</p> <ul style="list-style-type: none"> <li>● <i>description</i>: manual therapy (defined as the use of passive movements included “hands-on” muscular mobilization techniques)</li> <li>● <i>duration (weeks)</i>: 6</li> <li>● <i>number of treatments (total)</i>: max 6</li> </ul> <p>Control</p> <ul style="list-style-type: none"> <li>● <i>description</i>: Each patient in this group received standardized care from his or her general practitioner, including advice on prognosis, advice on psychosocial issues, advice on self-care (heat application, home exercises), advice on ergonomics (for example, size of pillow, work position), and encouragement to await further recovery. The treatment protocol was similar to the practice guidelines for low back pain issued by the Dutch College of General Practitioners (28). Patients received an educational booklet containing ergonomic advice and exercises (29). Medication, including paracetamol or nonsteroidal antiinflammatory drugs, was prescribed on a time-contingent basis if necessary.</li> <li>● <i>duration (weeks)</i>: 6</li> </ul>

	<ul style="list-style-type: none"> <li>● <i>number of treatments (total): 3</i></li> </ul> <p><b>Outcomes</b></p> <p><i>smerte (pain) end of treatment</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type:</b> ContinuousOutcome</li> </ul> <p><i>Smerte (pain) (Follow - up - 4-12 weeks)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type:</b> ContinuousOutcome</li> </ul> <p><i>Funktionsevne (level of function) Follow-up (4-12 weeks)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type:</b> ContinuousOutcome</li> </ul> <p><i>Forbrug af smertestillende medicin (Use of medicin) (Follow-up 4-12 weeks)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type:</b> DichotomousOutcome</li> </ul> <p><i>Tilbage til arbejde (Return to work ) (Follow-up 4-12 weeks)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type:</b> DichotomousOutcome</li> </ul> <p><i>Sygefravær - dage (Sickleave) (Follow-up 4-12 weeks)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type:</b> ContinuousOutcome</li> </ul> <p><i>Livskvalitet ( QoL) (Follow-up 4-12 weeks)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type:</b> ContinuousOutcome</li> </ul> <p><i>Frafald</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type:</b> DichotomousOutcome</li> </ul> <p><i>Skade på a.vertebralis (Injury on a.vertebralis)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type:</b> DichotomousOutcome</li> </ul>
<p><b>Identification</b></p>	<p><b>Sponsorship source:</b> Netherlands Organization for Scientific Research(904-66-068) and the Fund for Investigative Medicine of the HealthInsurance Council (OG95-008).</p> <p><b>Country:</b> Holland</p> <p><b>Setting:</b> Patients with nonspecific neck pain referred to one of four research centers by general practitioners</p> <p><b>Comments:</b></p> <p><b>Authors name:</b> Hoving J L, Koes B W, et al</p> <p><b>Institution:</b> From Institute for Research in Extramural Medicine, Vrije Universiteit Medical Centre, Amsterdam, the Netherlands; Cabrini Medical Centre, Malvern, and Monash University, Melbourne, Victoria, Australia; Erasmus</p>

	<p>University Rotterdam, Rotterdam, the Netherl  <b>Email:</b> Jan.Hoving@med.monash.edu.au.  <b>Address:</b> Cabrini Medical Centre, Suite 41, 183 Wattleree Road, Malvern, 3144 Victoria, Australia;</p>
<b>Notes</b>	<p><i>Tina Metodekonsulent Povlsen on 27/01/2016 19:51</i></p> <p><b>Interventions</b>                  The median number of visits was 6 (interquartilerange, 5 to 6) in the manual therapy group, 9 (interquartilerange, 7 to 12) in the physical therapy group, and 2 (interquartile range, 1 to 4) in the continued caregroup.</p> <p><i>Nkr45 Nakkemerter on 28/01/2016 01:37</i></p> <p><b>Outcomes</b>                  "improvement og average pain" efter 7 uger, Intention to treatPain follow -up er efter 13 uger NDI er anvendt efter 7 uger13 ugers opfølgning er fra Hoving 2006NDI efter 13 uger: I: 7.2 (6.7), C: 6.5 (7.1)</p> <p><i>Nkr45 Nakkemerter on 28/01/2016 03:58</i></p> <p><b>Identification</b>                  Hoving 2002 er primært studie, og Hoving 2006 indgår med data efter 13 uger</p>

Risk of bias table

Bias	Authors' judgement	Support for judgement
Incomplete outcome data	Low risk	
Blinding of outcome assessors	High risk	Two research assistants who were experienced physical therapists and were blinded to treatment allocation performed physical examinations at baseline and follow-up.
Sequence Generation	Low risk	a computer-generated random-sequence table.
Other sources of bias	Low risk	Apparently no other bias
Allocation concealment	Low risk	A researcher who was not involved in the project prepared opaque, sequentially numbered sealed envelopes that contained folded cards indicating one of the three interventions.

Blinding of participants and personnel	Unclear risk	Not described
Selective outcome reporting	Low risk	

**Pikula 1999**

<b>Methods</b>	<p><b>Study design:</b> Randomized controlled trial</p> <p><b>Study grouping:</b> Parallel group</p>
<b>Participants</b>	<p><b>Baseline Characteristics</b></p> <p>Thoracic manipulation</p> <ul style="list-style-type: none"> <li>● <i>no of males (%)</i>: 4 (33.3)</li> <li>● <i>mean age (SD)</i>: 39.5 (5.92)</li> <li>● <i>symptom duration weeks</i>: &lt; 2 weeks</li> <li>● <i>symptom characteristics</i>:</li> </ul> <p>placebo manipulation</p> <ul style="list-style-type: none"> <li>● <i>no of males (%)</i>: 3 (25.0)</li> <li>● <i>mean age (SD)</i>: 44.2 (6.98)</li> <li>● <i>symptom duration weeks</i>: &lt; 2 weeks</li> <li>● <i>symptom characteristics</i>:</li> </ul> <p><b>Included criteria:</b> unilateral neck pain and stiffness for less than two weeks and a self report of good general health.</p> <p><b>Excluded criteria:</b> radiculitis or pain into the arm or hand, neurological deficits of the brachial plexus roots, history of fracture, tumor, infection, spondylo-arthropathy, history of trauma, previous treatment by spinal manipulative therapy of the cervical spine, history of any other treatment of the cervical spine(physiotherapy, medication), previous neck surgery, workers' compensation or disability insurance issues, a condition potentially aggravated by electrical devices, i.e. heart pacemaker</p> <p><b>Pretreatment:</b></p>
<b>Interventions</b>	<p><b>Intervention Characteristics</b></p> <p>Thoracic manipulation</p> <ul style="list-style-type: none"> <li>● <i>description</i>: unilateral cervical manipulation: lateral flexion followed by ipsilateral rotation</li> <li>● <i>duration (weeks)</i>: one treatment</li> <li>● <i>number of treatments (total)</i>: 1</li> </ul>

	<p>placebo manipulation</p> <ul style="list-style-type: none"> <li>● <i>description</i>: detuned ultrasound</li> <li>● <i>duration (weeks)</i>: one treatment (8 min.)</li> <li>● <i>number of treatments (total)</i>: 1</li> </ul>
<p><b>Outcomes</b></p>	<p><i>smerte (pain) end of treatment</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type</b>: ContinuousOutcome</li> </ul> <p><i>Smerte (pain) (Follow - up - 4-12 weeks)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type</b>: ContinuousOutcome</li> </ul> <p><i>Funktionsevne (level of function) Follow-up (4-12 weeks)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type</b>: ContinuousOutcome</li> </ul> <p><i>Forbrug af smertestillende medicin (Use of medicin) (Follow-up 4-12 weeks)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type</b>: DichotomousOutcome</li> </ul> <p><i>Tilbage til arbejde (Return to work ) (Follow-up 4-12 weeks)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type</b>: DichotomousOutcome</li> </ul> <p><i>Sygefravær - dage (Sickleave) (Follow-up 4-12 weeks)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type</b>: ContinuousOutcome</li> </ul> <p><i>Livskvalitet ( QoL) (Follow-up 4-12 weeks)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type</b>: ContinuousOutcome</li> </ul> <p><i>Frafald</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type</b>: DichotomousOutcome</li> </ul> <p><i>Skade på a.vertebralis (Injury on a.vertebralis)</i></p> <ul style="list-style-type: none"> <li>● <b>Outcome type</b>: DichotomousOutcome</li> </ul>
<p><b>Identification</b></p>	<p><b>Sponsorship source</b>: Ikke oplyst</p> <p><b>Country</b>: Canada</p> <p><b>Setting</b>: pilot study from a single private chiropractic office</p> <p><b>Comments</b>:</p> <p><b>Authors name</b>: John R Pikula</p>



	<p><b>Institution:</b> Privat praksis  <b>Email:</b> not provided  <b>Address:</b> 189 Brant Avenue, Brantford Ontario N3T3J1</p>
<b>Notes</b>	<p><i>Nkr45 Nakkesmerter on 27/01/2016 05:25</i>  <b>Population</b>                  intervention: spinal unilateral manipulationcomparison: detuned ultrasound</p>

Risk of bias table

Bias	Authors' judgement	Support for judgement
Incomplete outcome data	High risk	Judgement Comment: Blandt andet ingen data om ekskluderede patienter.
Blinding of outcome assessors	Unclear risk	Judgement Comment: Not described
Sequence Generation	Low risk	Quote: "a random numbers list."
Other sources of bias	Low risk	
Allocation concealment	Unclear risk	Judgement Comment: Not described
Blinding of participants and personnel	Unclear risk	Judgement Comment: Not described
Selective outcome reporting	Low risk	Judgement Comment: Umiddelbart virker de på forhånd beskrevne data at være inkluderet

Footnotes

Characteristics of excluded studies

*Allison 2002*

<b>Reason for exclusion</b>	Wrong patient population
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***Björklund 2012***

Reason for exclusion	Wrong setting
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***Bonk 2000***

Reason for exclusion	Wrong patient population
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***Bronfort 2012***

Reason for exclusion	Wrong comparator
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***Cleland 2007***

Reason for exclusion	Wrong comparator
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***Conforti 2013***

Reason for exclusion	Wrong patient population
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***Dziedzic 2005***

Reason for exclusion	
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***Escortell Mayor 2011***

Reason for exclusion	Wrong comparator
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***Giebel 1997***

Reason for exclusion	Wrong patient population
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***Hemmila 2005***

Reason for exclusion	Wrong patient population
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***Howe 1983***

Reason for exclusion	Wrong patient population
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***Hurwitz 2005***

Reason for exclusion	Wrong intervention
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***Hurwitz 2006***

Reason for exclusion	Wrong study design
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***Jensen 1995***

Reason for exclusion	Wrong patient population
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***Jull 2002***

Reason for exclusion	Wrong patient population
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***Kjellman 2002***

Reason for exclusion	Wrong intervention
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***KlaberMoffett 1990***

Reason for exclusion	Wrong patient population
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***Koes 1992***

Reason for exclusion	A mix of back and neck pain
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***Krass, 2008***

Reason for exclusion	
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***Lin 2013***

Reason for exclusion	Wrong patient population
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***Maiers 2007***

Reason for exclusion	Wrong setting
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***Mansilla Ferragut 2009***

Reason for exclusion	Wrong setting
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***Martínez Segura 2006***

Reason for exclusion	Wrong comparator
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***Mealy 1986***

Reason for exclusion	Wrong patient population
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***Metcalfe 2006***

Reason for exclusion	Wrong setting
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***Moodley 2002***

Reason for exclusion	Wrong comparator
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***Pool 2010***

Reason for exclusion	Wrong comparator
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***Provinciali 1996***

Reason for exclusion	Wrong patient population
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***Reid 2014***

Reason for exclusion	Wrong patient population
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***Scholten Peeters 2003***

Reason for exclusion	Wrong patient population
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***Sloop 1982***

Reason for exclusion	Wrong patient population
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***Vasseljen 1995***

Reason for exclusion	Wrong intervention
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***Walker 2013***

Reason for exclusion	Wrong patient population
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### ***Whittingham 2001***

<b>Reason for exclusion</b>	Wrong patient population
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#### *Footnotes*

### **Characteristics of studies awaiting classification**

#### *Footnotes*

### **Characteristics of ongoing studies**

#### *Footnotes*

## **References to studies**

### **Included studies**

#### ***Cleland 2005***

[Empty]

#### ***Gonzalez-Iglesias 2009 JO***

[Empty]

#### ***Gonzalez-Iglesias 2009 MT***

[Empty]

#### ***Hoving 2002***

Hoving, J. L.; Vet, H. C.; Koes, B. W.; Mameren, Hv; Devillé, W. L.; Windt, D. A.; Assendelft, W. J.; Pool, J. J.; Scholten, R. J.; Korthals-de Bos, I. B.; Bouter, L. M.. Manual therapy, physical therapy, or continued care by the general practitioner for patients with neck pain: long-term results from a pragmatic randomized clinical trial. *Clinical journal of pain* 2006;22(4):370-7. [DOI: 10.1097/01.ajp.0000180185.79382.3f]

Hoving, Jan Lucas; Koes, Bart W; de Vet, Henrica C W; van der Windt, Danielle A W M; Assendelft, Willem J J; van Mameren, Henk; Deville, Walter L J M; Pool, Jan J M; Scholten, Rob J P M; Bouter, Lex M. Manual therapy, physical therapy, or continued care by a general practitioner for patients with neck pain. A randomized, controlled trial.. *Annals of internal medicine* 2002;136(10):713-22. [DOI: 200205210-00006 [pii]]

### ***Pikula 1999***

Pikula, J. R.. The effect of spinal manipulative therapy (SMT) on pain reduction and range of motion in patients with acute unilateral neck pain: a pilot study. *Journal of the Canadian Chiropractic Association* 1999;43(2):111-119. [DOI: ]

### **Excluded studies**

#### ***Allison 2002***

Allison, G. T.; Nagy, B. M.; Hall, T.. A randomized clinical trial of manual therapy for cervico-brachial pain syndrome -- a pilot study.. *Manual therapy* 2002;7(2):95-102. [DOI: S1356689X02904534 [pii]]

#### ***Björklund 2012***

Björklund, M.; Djupsjöbacka, M.; Svedmark, Å; Häger, C.. Effects of tailored neck-shoulder pain treatment based on a decision model guided by clinical assessments and standardized functional tests. A study protocol of a randomized controlled trial. *BMC Musculoskeletal Disorders* 2012;13. [DOI: <http://dx.doi.org/10.1186/1471-2474-13-75>]

#### ***Bonk 2000***

Bonk, A. D.; Ferrari, R.; Giebel, G. D.; Edelmann, M.; Huser, R.. Prospective, randomized, controlled study of activity versus collar, and the natural history for whiplash injury, in Germany. *Journal of Musculoskeletal Pain* 2000;8(1-2):123-32. [DOI: ]

#### ***Bronfort 2012***

Bronfort, G.; Evans, R.; Anderson, A. V.; Svendsen, K. H.; Bracha, Y.; Grimm, R. H.. Spinal manipulation, medication, or home exercise with advice for acute and subacute neck pain: a randomized trial. *Annals of Internal Medicine* 2012;156(1 Pt 1):1-10. [DOI: <http://dx.doi.org/10.7326/0003-4819-156-1-201201030-00002>]

#### ***Cleland 2007***

Cleland JA; Glynn P; Whitman JM; Eberhart SL; MacDonald C; Childs JD. Short-term effects of thrust versus nonthrust mobilization/manipulation directed at the thoracic spine in patients with neck pain: a randomized clinical trial.. *Physical Therapy* 2007;87(4):431-440 10p. [DOI: 10.2522/ptj.20060217]

**Conforti 2013**

Conforti, M.; Fachinetti, G. P.. High power laser therapy treatment compared to simple segmental physical rehabilitation in whiplash injuries (1 degrees and 2 degrees grade of the Quebec Task Force classification) involving muscles and ligaments. *Muscles Ligaments Tendons J* 2013;3(2):106-11. [DOI: 10.11138/mltj/2013.3.2.106]

**Dziedzic 2005**

[Empty]

**Escortell Mayor 2011**

Escortell-Mayor, E.; Riesgo-Fuertes, R.; Garrido-Elustondo, S.; Asunsolo-Del Barco, A.; Diaz-Pulido, B.; Blanco-Diaz, M.; Bejerano-Alvarez, E.; Tema-Tens Group. Primary care randomized clinical trial: manual therapy effectiveness in comparison with TENS in patients with neck pain. *Manual therapy* 2011;16(1):66-73. [DOI: <http://dx.doi.org/10.1016/j.math.2010.07.003>]

**Giebel 1997**

Giebel,G. D.; Edelmann,M.; Huser,R.. Sprain of the cervical spine: early functional vs. immobilization treatment. *Zentralblatt fur Chirurgie* 1997;122(7):517-521. [DOI: ]

**Hemmila 2005**

Hemmila, H. M.. Bone setting for prolonged neck pain: a randomized clinical trial. *J Manipulative Physiol Ther* 2005;28(7):508-15. [DOI: 10.1016/j.jmpt.2005.07.008]

**Howe 1983**

Howe,D. H.; Newcombe,R. G.; Wade,M. T. . Manipulation of the cervical spine--a pilot study.. *Journal of the Royal College of General Practitioners* 1983;33(254):574-579. [DOI: ]

**Hurwitz 2005**

Hurwitz EL; Morgenstern H; Vassilaki M; Chiang L. Frequency and clinical predictors of adverse reactions to chiropractic care in the UCLA Neck Pain Study.. *Spine* (03622436) 2005;30(13):1477-1484 8p. [DOI: 00007632-200507010-00003 [pii]]

**Hurwitz 2006**

Hurwitz, E. L.; Goldstein, M. S.; Morgenstern, H.; Chiang, L. -M. The impact of psychosocial factors on neck pain and disability outcomes among primary care patients: Results from the UCLA neck pain study.. *Disability and rehabilitation* 2006;28(21):1319-1329. [DOI: ]



**Jensen 1995**

Jensen, I.; Nygren, A.; Gamberale, F.; Goldie, I.; Westerholm, P.; Jonsson, E.. The role of the psychologist in multidisciplinary treatments for chronic neck and shoulder pain: a controlled cost-effectiveness study.. Scandinavian journal of rehabilitation medicine 1995;27(1):19-26. [DOI: ]

**Jull 2002**

Jull, G.; Trott, P.; Potter, H.; Zito, G.; Niere, K.; Shirley, D.; Emberson, J.; Marschner, I.; Richardson, C.. A randomized controlled trial of exercise and manipulative therapy for cervicogenic headache. Spine 2002;27(17):1835-1842. [DOI: <http://dx.doi.org/10.1097/00007632-200209010-00004>]

**Kjellman 2002**

Kjellman, G.; Oberg, B.. A randomized clinical trial comparing general exercise, McKenzie treatment and a control group in patients with neck pain.. Journal of Rehabilitation Medicine 2002;34(4):183-190. [DOI: ]

**KlaberMoffett 1990**

Klaber Moffett, JA; Hughes, GJ; Griffiths, P.. An investigation of the effects of cervical traction. Part 1: Clinical effectiveness. Clinical rehabilitation 1990;4(3):205-211. [DOI: 10.1177/026921559000400304]

**Koes 1992**

Koes BW.; Bouter LM.; van Mameren H.; Essers AH.; Versteegen GM.; Hofhuizen DM.; Houben JP.; Knipschild PG.. Randomised clinical trial of manipulative therapy and physiotherapy for persistent back and neck complaints: results of one year follow up.. BMJ (Clinical research ed.) 1992;304(6827):601-5. [DOI: ]

**Krass, 2008**

[Empty]

**Lin 2013**

Lin, Jian Hua; Shen, Tong; Chung, Raymond Chi Keung; Chiu, Thomas Tai Wing. The effectiveness of Long's manipulation on patients with chronic mechanical neck pain: A randomized controlled trial.. Manual Therapy 2013;18(4):308-315 8p. [DOI: 10.1016/j.math.2012.11.005]

**Maiers 2007**

Maiers MJ.; Hartvigsen J.; Schulz C.; Schulz K.; Evans RL.; Bronfort G.. Chiropractic and exercise for seniors with low back pain or neck pain: the design of two randomized clinical trials.. BMC musculoskeletal disorders 2007;8:94. [DOI: 10.1186/1471-2474-8-94]

**Mansilla Ferragut 2009**

Mansilla-Ferragut, P.; Fernández-de-Las Peñas, C.; Alburquerque-Sendín, F.; Cleland, J. A.; Bosca-Gandía, J. J.. Immediate effects of atlanto-occipital joint manipulation on active mouth opening and pressure pain sensitivity in women with mechanical neck pain. *Journal of manipulative and physiological therapeutics* 2009;32(2):101-6. [DOI: 10.1016/j.jmpt.2008.12.003]

**Martínez Segura 2006**

Martínez-Segura, R.; Fernández-de-las-Peñas, C.; Ruiz-Sáez, M.; López-Jiménez, C.; Rodríguez-Blanco, C.. Immediate effects on neck pain and active range of motion after a single cervical high-velocity low-amplitude manipulation in subjects presenting with mechanical neck pain: a randomized controlled trial. *Journal of manipulative and physiological therapeutics* 2006;29(7):511-7. [DOI: 10.1016/j.jmpt.2006.06.022]

**Mealy 1986**

Mealy,K.; Brennan,H.; Fenelon,G. C.. Early mobilization of acute whiplash injuries. *British medical journal (Clinical research ed.)* 1986;292(6521):656-657. [DOI: ]

**Metcalfe 2006**

Metcalfe,S.; Reese,H.; Sydenham,R.. Effect of high-velocity low-amplitude manipulation on cervical spin muscle strength: a randomized clinical trial.. *Journal of Manual & Manipulative Therapy* 2006;14(3):152-158. [DOI: ]

**Moodley 2002**

Moodley M; Brantingham JW. The relative effectiveness of spinal manipulation and ultrasound in mechanical pain: pilot study.. *Journal of Chiropractic Medicine* 2002;1(4):184-188 5p. [DOI: 10.1016/S0899-3467(07)60034-2]

**Pool 2010**

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**Provinciali 1996**

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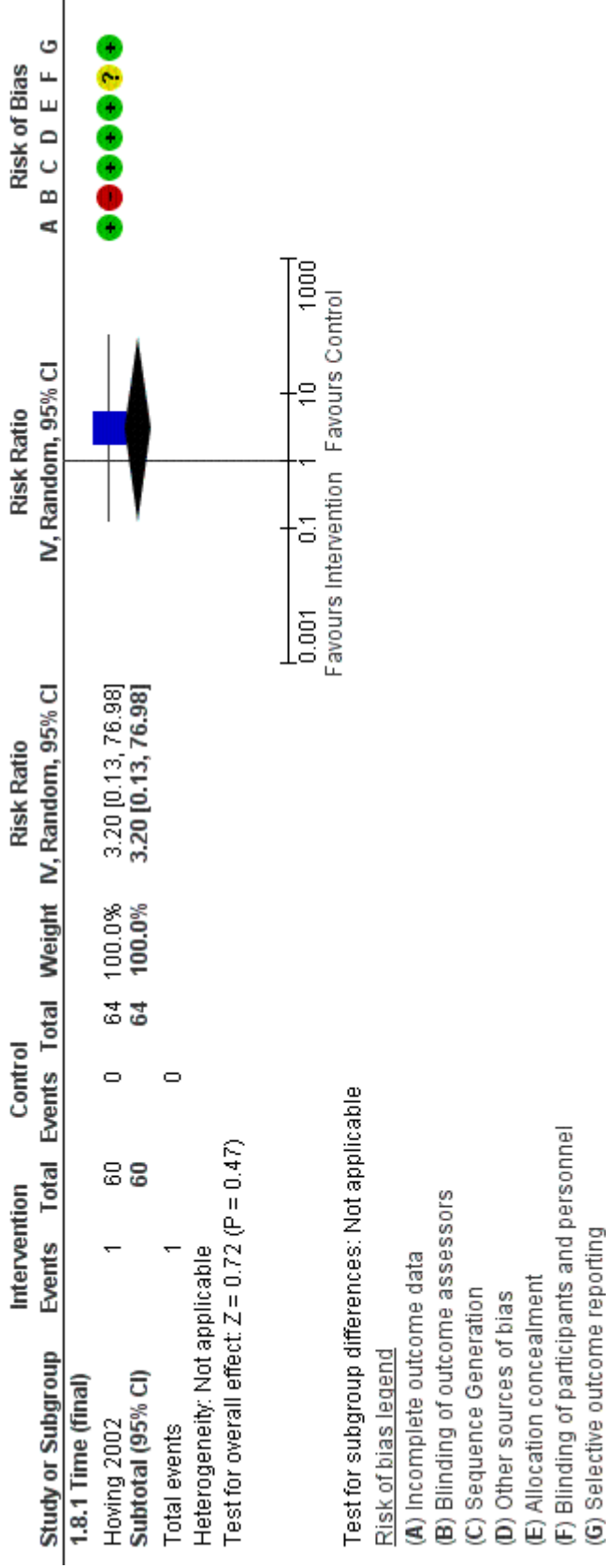
**Data and analyses****1 Intervention vs Control**

Outcome or Subgroup	Studies	Participants	Statistical Method	Effect Estimate
1.1 smerte (pain) end of treatment	5		Mean Difference (IV, Random, 95% CI)	Subtotals only
1.1.1 VAS 0-10	5	274	Mean Difference (IV, Random, 95% CI)	-1.70 [-2.25, -1.15]
1.2 Smerte (pain) (Follow - up - 4-12 weeks)	2		Mean Difference (IV, Random, 95% CI)	Subtotals only
1.2.1 VAS 0-10	2	169	Mean Difference (IV, Random, 95% CI)	-1.44 [-2.78, -0.10]

1.3 Funktionsevne (level of function) Follow-up (4-12 weeks)	0	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable		
1.4 Sygefravær - dage (Sickleave) (Follow-up 4-12 weeks)	0	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable		
1.5 Livskvalitet ( QoL) (Follow-up 4-12 weeks)	0	0	0	Mean Difference (IV, Fixed, 95% CI)	Not estimable		
1.6 Forbrug af smertestillende medicin (within 48 hours) (Follow-up 4-12 weeks)	0			Risk Ratio (IV, Fixed, 95% CI)	Subtotals only		
1.7 Tilbage til arbejde (Return to work ) (Follow-up 4-12 weeks)	0			Risk Ratio (IV, Fixed, 95% CI)	No totals		
1.8 Frafald	1			Risk Ratio (IV, Random, 95% CI)	Subtotals only		
1.8.1 Time (final)	1	124		Risk Ratio (IV, Random, 95% CI)	3.20 [0.13, 76.98]		
1.9 Skade på a.vertebralis (Injury on a.vertebralis)	0			Risk Ratio (IV, Fixed, 95% CI)	Subtotals only		

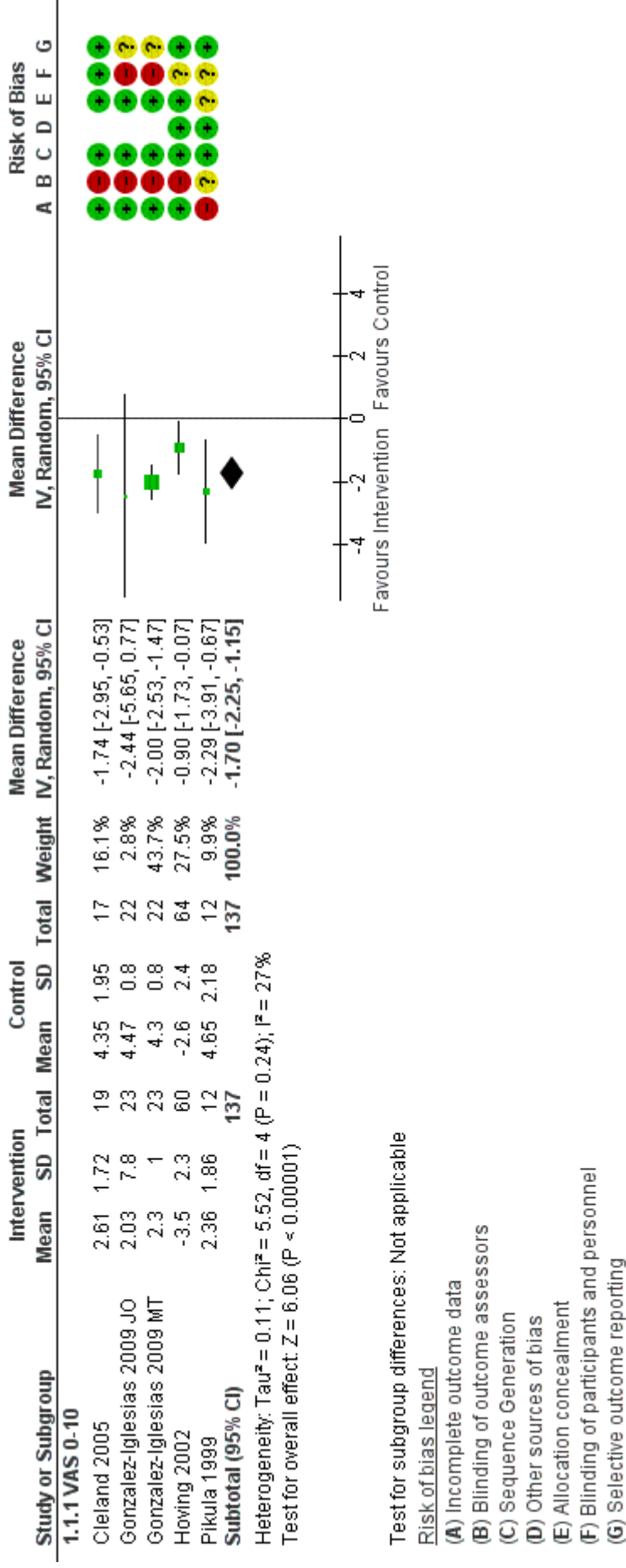
## Figures

### Figure 5 (Analysis 1.8)



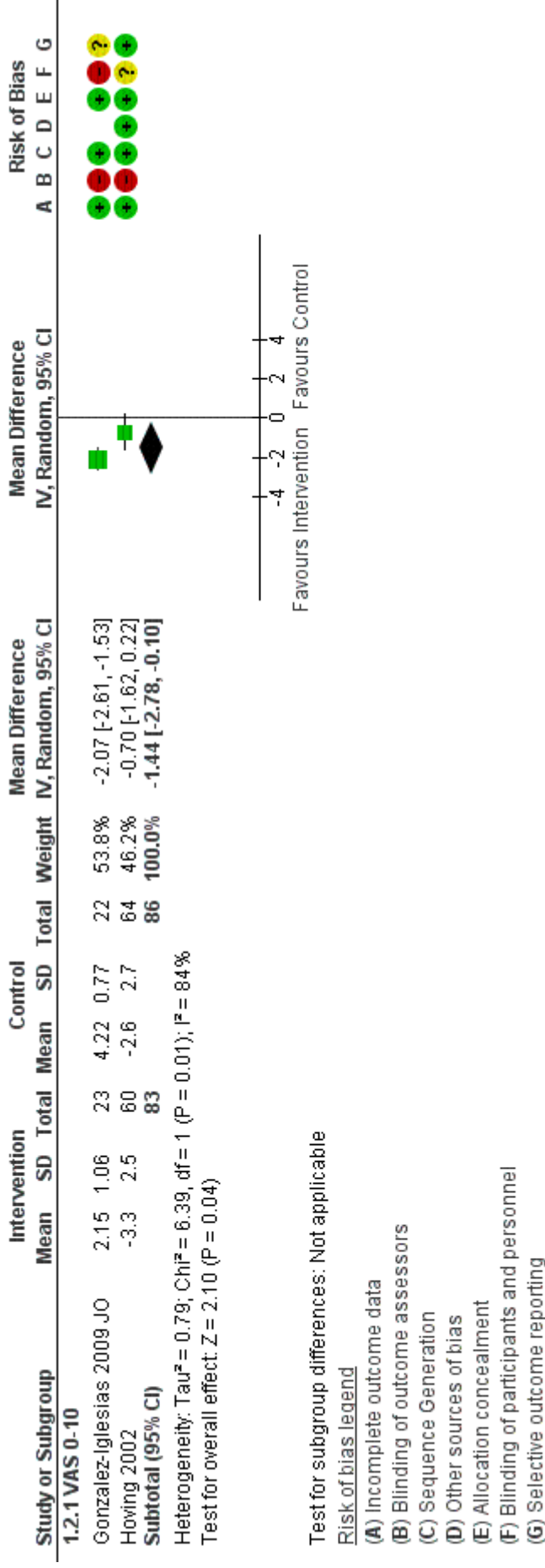
Forest plot of comparison: 1 Intervention vs Control, outcome: 1.8 Frafaid.

**Figure 6 (Analysis 1.1)**



Forest plot of comparison: 1 Intervention vs Control, outcome: 1.1 smerte (pain) end of treatment.

Figure 7 (Analysis 1.2)



Forest plot of comparison: 1 Intervention vs Control, outcome: 1.2 Smerte (pain) (Follow - up - 4-12 weeks).