

Appendix 1 Search Strategies

CINAHL EBSCO search 31 March, 2016

#	Query
S11	S8 OR S9 OR S10
S10	S4 AND S5 AND S6 AND S7
S9	S4 AND S5 AND S7
S8	S4 AND S5 AND S6
S7	"subluxation"
S6	"pain"
S5	(MH "Shoulder")
S4	S1 OR S2 OR S3
S3	"hemiplegic"
S2	(MH "Hemiplegia")
S1	(MH "Stroke")

AMED EBSCO 31 March, 2016

Search ID#	Search Terms
S22	S19 OR S20 OR S21
S21	S15 AND S16 AND S17 AND S18
S20	S15 AND S16 AND S18
S19	S15 AND S16 AND S17
S18	TX subluxation
S17	TX pain
S16	TX shoulder
S15	S12 OR S13
S14	hemiplegic
S13	TX Hemiplegia
S12	TX stroke
S11	S8 OR S9 OR S10
S10	S4 AND S5 AND S6 AND S7
S9	S4 AND S5 AND S7
S8	S4 AND S5 AND S6
S7	"subluxation"
S6	"pain"
S5	(MH "Shoulder")
S4	S1 OR S2 OR S3
S3	"hemiplegic"
S2	(MH "Hemiplegia")
S1	(MH "Stroke")

<u>Author and Date</u>	<u>Participant numbers & study type</u>	<u>Methods of assessment of subluxation and pain</u>	<u>Outcome measures</u>	<u>Pedro score (out of 9)</u>
Hurd 1974 (17)	N=14, controlled trial	Usual care (physiotherapy) vs usual care plus hemi-sling; anthropometric measures and other clinical assessment scores (pain, strength, contracture and comfort)	No difference in subluxation, joint ranges or pain comparing both groups.	2
Moodie 1986 (20)	N=10, observational, within subject comparison	Within subject comparison of 3 orthoses (triangular bandage, Bobath, Hook hemi-harness); assessment with AP radiograph.	Only the triangular sling was effective	5
Williams 1988 (18)	N=26, observational, within subject comparison	Within subject comparison of 2 orthoses (Henderson, Bobath); assessment with AP radiograph	Both orthoses effective equally effective at reducing vertical subluxation	5
Brooke 1991 (19)	N=10, observational, within subject comparison	Within subject comparison of 2 orthoses (Harris hemi-sling, Bobath); assessment with AP radiograph	Harris Sling more effective at reducing vertical subluxation than Bobath roll	4
Zorowitz 1995 (21)	N=20, observational, within subject comparison	4 orthoses (single strap hemisling, Bobath roll, Rolyan cuff, Cavalier support); assessment with AP radiograph	Single strap hemi-sling most effective at reducing vertical subluxation compared to other orthoses	5
Dieruf 2005 (15)	N=20, observational, within subject comparison	Within subject comparison of 2 orthoses (Rolyan sling, GivMohr sling); assessment with radiographs	GivMohr significantly reduces vertical subluxation compared to Rolyan	5
Hartwig 2012 (14)	N=21, controlled trial	Usual care (physiotherapy) vs usual care plus Neurolux sling; anthropometric measures and other clinical assessment scores (pain, strength, contracture and comfort)	Shoulder-hand scores significantly improved in intervention group compared to control group. No change in subluxation when sling not worn.	7
Hesse 2013 (13)	N=40, (radiographs n=12); observational, within subject comparison	Usual care (physiotherapy) vs usual care plus Omo Neurexa orthosis; anthropometric measures and other clinical assessment scores (pain, contracture)	Subluxation reduced in 10/12 patients on radiograph. Significant reduction in clinical subluxation and significant increase in summed muscle strength (n=40).	5

Appendix 2 Summary of included trials and PEDRo scores.

Appendix 3 Excluded studies with reasons (n=19)

Acar, M. and Karatas, G. K. (2010)	No outcome of interest - Gait
Brudny et al. (1985)	Descriptive – no data
Han et al (2011)	No outcome of interest - Gait
Hesse, S. et al (2008)	Descriptive – no data
Hesse et al (2008)	German
Hesse et al. (2008)	German
Kieran et al (1984)	Descriptive – no data
Krempen JF et al (1977)	Descriptive - no data
Patterson et al (1984)	Descriptive – no data
Park, et al (2007)	No intervention
Prevost, R. (1988)	Descriptive - no data
Rajaram V and Holtz M (1985)	Descriptive - no data
Roy, C. W. and Blamire, J. G. (1989)	Descriptive - no data
Sodring, K. M. (1980)	Descriptive - no data
Spaulding, S. J. (1999)	Descriptive - no data
Sullivan BE and Rogers SL (1989)	Descriptive - no data
Werner, C. (2009.)	Descriptive - no data
Yavuzer, G. and Ergin, S. (2002)	No outcome of interest - Gait
Zorowitz, R. D. et al (1996)	No intervention

References of excluded studies

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Rajaram V, Holtz M. Shoulder forearm support for the subluxed shoulder. *Archives of Physical Medicine & Rehabilitation* 1985 Mar;66(3):191-192.

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Yavuzer G, Ergin S. Effect of an arm sling on gait pattern in patients with hemiplegia. *Archives of Physical Medicine & Rehabilitation* 2002 07/01;83(7):960.

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