**Table E41. Data abstraction of randomized controlled trials of lumbar support**

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| **Author, Year** | **Country**  **Number of Centers and Setting** | **Inclusion Criteria** | **Number Randomized, Analyzed**  **Attrition** | **Intervention** |
| Calmels 2009 | France  Single center | Age 20 to 60 years, duration of LBP 1 to 3  months  Excluded: presence of radicular pain, prior surgery or lumbar belt use (within 6 months), traumatic LBP, chronic cardiovascular or respiratory disease, contraindication to NSAID | Randomized: 217  Analyzed: 197  Attrition: 9% (20/217) | A. Lumbar support (n=102) 5-8 hours/day, 3-5  days/week (varied according to study timepoint; hours of use/week decreased over time)  B. No lumbar support (n=95) |
| Morrisette, 2014 | United States Single center | ≥18 years of age, low back pain of any duration Excluded: Prior spinal surgery, litigation related to low back pain, neurological disease or injury, systemic inflammatory disease, pregnant, acute fracture, tumor, systemic or spinal infection; 2 or more of the following: motor deficit in myotomal distribution, diminished sensation, and/or absent deep tendon reflexes | Randomized: 98 Analyzed: 98 Attrition: 0% (0/98) | A: Inextensible lumbar support, number of hours per day not specified (mean 5.0 hours/day) (n=37) + standard care B: Extensible lumbar support, mean 4.8 hours/day (n=32) + standard care C: Standard care (n=29)  All interventions administered for 2 weeks, standard care consisted of physician advice and medication and physical therapy including exercise, manual therapy, electrical stimulation, traction, cold/heat, and ultrasound |
| Oleske, 2007 | United States  Multicenter | Workers identified through a corporate  Health Information System having nontraumatic, work-related low back disorder within 8 weeks of study entry Excluded: Concomitant work-related injury or illness | Randomized: 433  Analyzed: 433  Attrition: 0% (0/433) | A. Lumbar support + education (n=222),  timing of support use not reported  B. Education only (n=211) |
| Sato, 2012 | Japan | Chronic low back pain patients attending a  university hospital clinic in Japan Excluded: LBP due to infection, osteoporosis, or malignancy | Randomized: 50  Analyzed: 40  Attrition: 20% (10/50) | A. Lumbar support (corset; n=not reported)  worn during all waking hours for 6 months except during bathing  B. No lumbar support (n=not reported) |

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| **Author, Year** | **Study Participants** | **Duration of Pain (acute, subacute, chronic)** | **Duration of**  **Followup** | **Results**  **(list results for acute, subacute and chronic separately)** |
| Calmels 2009 | Population characteristics not  reported by treatment group  Mean age 43 years  45% female  Race not reported  A vs. B  Population characteristics reported by treatment group Mean pain (VAS, scale 0-100)  60.9 vs. 59.7  Mean function (EIFEL score, scale 0-24; higher score=more disability) 10.3 vs. 10.1 | Subacute; mean  duration not reported but inclusion criteria  required pain duration 1-  3 months at baseline | 3 months  (90 days) | A vs. B  Pain, mean change in VAS, day 30: -26.8 (SD 18.2) vs. -21.3 (SD 18.7);  p=0.04  Pain, mean change in VAS, day 90: -41.5 (SD 21.5) vs. -32.0 (SD 20.0);  p=0.002  Function, mean change in EIFEL score, day 30: -5.4 (SD 4.1) vs. -4.0 (SD  4.3); p=0.02  Function, mean change in EIFEL score, day 90: -7.6 (SD 4.4) vs. -6.1 (SD  4.7); p=0.02 |
| Morrisette, 2014 | A vs. B vs. C Mean age: 50 vs. 49 vs. 45 years Female: 54% Vs. 69% vs. 62% African-American: 78% vs. 69% vs. 72% Mean pain (0-10): 7.6 vs. 7.6 vs. 7.6 Mean ODI (0-100): 40 vs. 36 vs. 34 | Mixed duration, mean 14 vs. 18 vs. 10 weeks | 2 weeks | A vs. B vs. C (mean difference from baseline) Pain (0-10 NRS): 3.3 (95% CI 2.3-4.3) vs. 3.3 (95% CI 2.2-4.4) vs. 2.4 (95% CI 1.4-3.5) at 2 w; p>0.05 for all comparisons ODI (0-100): 14.0 (95% CI 8.2-19.8) vs. 8.1 (95% CI 2.8-13.4) vs. 2.4 (95% CI -2.2-7.1) at 2 w; p=0.01 for A vs. C Patient Specific Activity Scale (0-10): -1.8 (95% CI -2.5 to -1.0) vs. -1.2 (95% CI -1.9 to -0.5) vs. -0.4 (95 %CI -1.3 to -0.4) at 2 w; p=0.01 for A vs. C ODI improved >50%: 35% (13/37) vs. 16% (5/32) vs. 10% (3/29); RR 2.25 (95% CI 0.90 to 5.62) for A vs. B, RR 3.40 (95% CI 1.07 to 10.8) for A vs. C, RR 1.51 (95% CI 0.40 to 5.77) for B vs. C ODI improved >6 points: 65% (24/37) vs. 59% (19/32) vs. 38% (11/29); RR 1.09 (95% CI 0.75 to 1.58) for A vs. B, RR 1.71 (95% CI 1.01 to 2.88) for A vs. C, RR 1.57 (95% CI 0.91 to 2.70) for B vs. C Patient Specific Activity Scale improved >2 points: 35% (13/37) vs. 31% (10/32) vs. 21% (6/29); RR 1.12 (95% CI 0.57 to 2.21) for A vs. B, RR 1.70 (95% CI 0.74 to 3.92) for A vs. C, RR 1.51 (95% CI 0.63 to 3.64) for B vs. C Pain improved >2.4 points: 70% (26/37) vs. 75% (24/32) vs. 55% (16/29); RR 0.94 (95% CI 0.70 to 1.25) for A vs. B, RR 1.27 (95% CI 0.86 to 1.88) for A vs. C, RR 1.36 (95% CI 0.93 to 2.00) for B vs. C |

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| **Author, Year** | **Study Participants** | **Duration of Pain (acute, subacute, chronic)** | **Duration of**  **Followup** | **Results**  **(list results for acute, subacute and chronic separately)** |
| Oleske, 2007 | A vs. B  Mean age 46 vs. 46 years  17% vs. 24% female  Race: 66% vs. 67% white; 34%  vs. 33% non-white  67% vs. 69% onset of LBP <2 weeks prior to study entry Mean pain (VAS, scale 0-10)  4.09 vs. 4.18  Mean function (Oswestry, scale  0-100; higher score=more disability) 24.4 vs. 24.5 | Acute or subacute;  mean duration not reported but inclusion criteria required pain duration <8 weeks at baseline | 1 year | A vs. B  Pain, coefficient of change (group A=reference group): -0.248 days; p=0.3  Function, coefficient of change (group A=reference group): -0.298 days;  p=0.8  Overall conclusion: no difference between treatment groups for pain or function outcomes |
| Sato, 2012 | *Population characteristics not*  *reported by treatment group*  Mean age not reported; range  30 to 78 years  50% female  Race not reported  Mean pain and function score not reported | Chronic; mean duration  not reported but inclusion criteria required pain duration  >3 months at baseline | 6 months | A vs. B  Function, Japanese Orthopedic Association (JOA) criteria (includes patient- assessment of pain and function), 1 month: significant difference in JOA score, favoring lumbar support: p<0.01 (no data shown); no significant difference between groups at 3 and 6 months |

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| **Author, Year** | **Adverse Events Including Withdrawals** | **Funding Source** | **Quality** | **Comments** |
| Calmels 2009 | Not reported | No external funding | Fair |  |
| Morrisette, 2014 | Not reported | Aspen Medical Products, Inc; National Institutes of Health | Fair |  |
| Oleske, 2007 | Not reported | UAW-GM National  Joint Committee on  Health and Safety | Fair |  |
| Sato, 2012 | Not reported | Not reported | Fair |  |

**Please see Appendix C. Included Studies for full study references.**