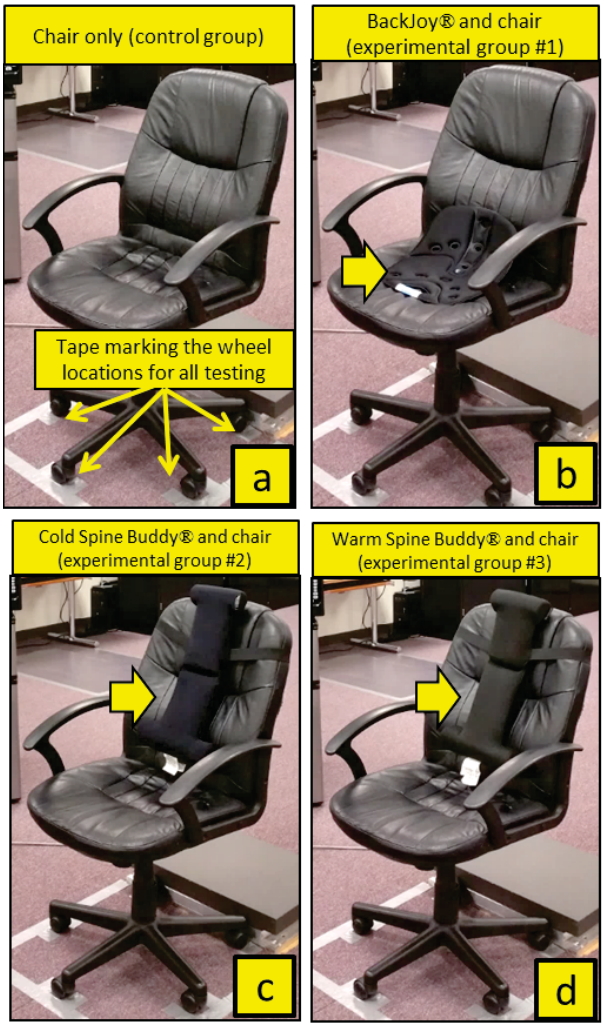
Image of the four study groups: (a) chair only, (b) BackJoy® SitSmart Relief product, (c) Freezer-cooled Spine Buddy® LT1 H/C, and (d) microwave-heated Spine Buddy® LT1 H/C. Masking tape was used to mark the specific location on the floor for the chair wheels to ensure similar placement between participants.



Comparison of the BackJoy® SitSmart Relief and Spine Buddy® LT1 H/C chair supports on neck and back pain short-term (project completed spring 2015 by **Ward J, Coats J**)

Objective: The BackJoy® SitSmart Relief and Spine Buddy® LT1 H/C chair supports are both marketed to relieve neck and back pain. The latter product is designed to be cooled or heated. The study purpose was to determine if the products relieved symptoms of neck or low back pain.
Methods: Forty-eight college students (age= 27.5 ± 6.3 years, height= 1.72 ± 0.08 m, body mass= 78.7 ± 19.8 kg, hours seated that day 4.3 ± 2.8 hrs: mean ± SD) completed a Nordic Musculoskeletal Questionnaire (NMQ) pain instrument. They were then randomized to sit in a stationary office chair for 12 minutes under one of four conditions: office chair only (control group), BackJoy® SitSmart Relief and chair, freezer-cooled Spine Buddy® LT1 H/C and chair, or microwave-heated Spine Buddy® LT1 H/C and chair. Participants then completed a post-test NMQ. A between-within repeated-measures analysis of variance (ANOVA) using between-subjects factor intervention (group) and within-subjects factor time (baseline and post-test) was utilized to analyze study data.
Results: The main effect of "time" across the whole sample was statistically significant for neck (p=0.000), upper back (p=0.032), and lower back (p=0.000) pain; however, there was no statistically significant interaction effect between intervention and time. Thus, as long as the participant sat down and rested they improved similarly no matter which group they were in.
Conclusions: Preliminarily, the results of this research suggest the addition of an extra support to an office chair did not reduce pain any greater than resting in a chair by itself short-term.