

**THE RELATIONSHIP BETWEEN SHOULDER DISORDERS  
AND INSTRUMENT GROUP IN PROFESSIONAL  
AUSTRALIAN ORCHESTRAL MUSICIANS**

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**Background** Professional musicians have high rates of musculoskeletal disorders, but few studies have analysed the risk of shoulder pain and injury by instrument group and work environment.

**Aims/Objectives/Purpose** To assess the prevalence and impact of shoulder pain and injury, and its relation to instrument group, in professional musicians from Australian orchestras.

**Methods** 374 musicians from six professional Australian orchestras completed a physical examination and cross-sectional questionnaire concerning their demographics, duties and physical activities at work. The outcome variable, left and right shoulder pain and injury, was assessed using a subjective pain score—the visual analogue scale—and objective physical examination. Prevalence rates were estimated and associations with risk factors assessed by logistic regression.

**Results/Outcomes** Shoulder pain and injury is common amongst professional orchestral musicians. The overall estimate for right and left shoulder pain was 19% and 12% respectively. There was an association between right shoulder injury and instrument group. Woodwind (OR 2.22 95% CI 0.99 to 5.00) and upper string musicians (OR 2.28; 95% CI 1.02 to 5.09) had a significantly higher OR when compared to brass players.

**Significance/Contribution to the Field** The findings reinforce the fact that shoulder disorders are common amongst professional orchestral musicians and highlight the need for prospective research into the occupational exposures that contribute to this problem.