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Risk factors for acute and chronic injury in recreational and competitive surfers

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Risk factors for acute and chronic injury in recreational and competitive surfers.

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James Furness BHSc (Physiotherapy) is a practicing physiotherapist with over 6 years of clinical experience in the private practice, public and private hospital settings. Over the past 2 years James has been a staff member involved in the Doctor of Physiotherapy program at Bond University. His role as a tutor, assistant lecturer and clinical educator has allowed James to gain experience in the academic setting. James is currently embarking on a Master’s of Science by Research through the Faculty of Health Sciences & Medicine at Bond University. James has strong passion for musculoskeletal physiotherapy and the sport of surfing and therefore his research encompasses both of these aspects. With the sport of surfing practiced world-wide and a current paucity of research in this sport these findings are a catalyst for wider research in this area.

Questions: Are there age related differences in the incidence of acute injuries or the prevalence of chronic injuries for recreational and competitive surfers. Design:
Retrospective observational study. Participants: A total of 1,348 participants completed an online survey consisting of three sections: demographics, acute and chronic injury. Results:
Of 1,348 surfers (1,231 male, mean age 36.2 ±13.2, 117 female mean age 31.9 ±11.1), 708 (52.5%) suffered an acute injury whilst surfing in the preceding 12months. As expected those suffering an acute injury on average spent significantly (t=5.2, p<0.001) more time surfing (343.1 ±312.0 versus 263.1 ±259.9 hours/year) than those who were uninjured. Independent t tests revealed a significant difference (t=5.2, p<0.001) between age and incidence of acute injury with younger surfers (34.1 ±12.3 versus 37.8 ±13.6 years) more likely to sustain an acute injury in the previous twelve months. Of the 1,348 surfers, 477 (35.4%) suffered from a chronic injury caused or aggravated by surfing. Older surfers (39.3 ±12.0 vs. 33.9 ±13.3 years) were more likely to sustain a chronic injury (t=7.6, p<0.001) whilst surfing. Of interest there was no significant difference (t=0.38, p=0.11) between prevalence of chronic injury and hours spent surfing (309.6 ±272.0 versus 303.2 ±301.3 hours/year). Conclusion: This information aids in identifying surfers who are more at risk of acute and chronic injury. These findings reinforce the relevance of preventative surf specific conditioning (proprioceptive, strength and flexibility) exercises in at risk surfing subgroups.

Key practice points:
- Younger surfers were more at risk of suffering an acute injury (<35 years). Older surfers were more likely to suffer a chronic injury (>38 years).
- Acute injury was associated with increased hours surfing (>6.5 hours per week).
- Screening and surf specific conditioning exercises could be implemented for at risk subgroups.