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Title:

Quality of life changes following peripheral blood stem cell transplantation and participation in a mixed-type, moderate-intensity, exercise program.

[Davies, P. S. W.](#)¹ [Parker, T.](#)² [Bashford, J.](#)³ [Newman, B.](#)⁴ [Hayes, S.](#)^{2,4}
sc.hayes@qut.edu.au

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Article

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Abstract:

Summary: The purpose of this investigation was to evaluate the impact of undertaking peripheral blood stem cell transplantation (PBST) on quality of life (QoL), and to determine the effect of participating in a mixed-type, moderate-intensity exercise program on QoL. It was also an objective to determine the relationship between peak aerobic capacity and QoL in PBST patients. QoL was assessed via the CARES questionnaire and peak aerobic capacity by a maximal graded treadmill test, pretransplant (PI), post transplant (PII) and following a 12-week intervention period (PIII). At PII, 12 patients were divided equally into a control or exercise intervention group. Undergoing a PBST was associated with a statistically but not clinically significant decline in QoL ($P < 0.05$). Following the intervention, exercising patients demonstrated an improved QoL when compared with pretransplant ratings ($P < 0.01$) and nonexercising transplant patients ($P < 0.05$). Moreover, peak aerobic capacity and QoL were correlated ($P < 0.05$). The findings demonstrated that exercise participation following oncology treatment is associated with a reduction in the number and severity of endorsed problems, which in turn leads to improvements in global, physical and psychosocial QoL. Furthermore, a

relationship between fitness and QoL exists, with those experiencing higher levels of fitness also demonstrating higher QoL. *Bone Marrow Transplantation* (2004) 33, 553-558. doi:10.1038/sj.bmt.1704378 Published online 12 January 2004
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Author Affiliations:

¹Children's Nutrition Research Centre, Department of Pediatrics and Child Health, University of Queensland, Queensland, Australia

²School of Human Movements Studies, Faculty of Health, Queensland University of Technology, Queensland, Australia

³The Wesley Hospital, Queensland, Australia

⁴Centre for Public Health Research, Faculty of Health, Queensland University of Technology, Queensland, Australia

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