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## The role of resistance exercise in chronic disease: Prescription guidelines and application in clinical practice

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Physical activity has long been recognized as an effective method of preventative therapy that may enhance health outcomes, such as muscular fitness, functional ability and quality of life. Although much of the efficacy of physical activity as preventative therapy has centered on aerobic exercise, appropriately prescribed resistance exercise has been shown to provide significant improvements in several physiological and psychological parameters. With the beneficial relationship between health factors and chronic disease established, major health organizations have recently developed resistance exercise guidelines; however, few address the specific needs of chronic disease patients. This review defines the role of resistance exercise in chronic disease, with specific reference to cardiovascular disease, breast and prostate cancers, and aging and sarcopenia. The application of the acute program variables and their influence on exercise prescription and training adaptations is presented with resistance exercise guidelines and application recommendations provided. It is essential that those involved with resistance exercise prescription for chronic disease patients (i.e., rehabilitation specialists, exercise physiologists) utilize a phase-specific approach in order to optimize the potential health-related benefits associated with resistance exercise. The concepts presented represent an important approach to effective resistance exercise prescription for chronic diseases patients.

## **Biography**

Stephen P Bird is a Senior Lecturer in Exercise Rehabilitation at Charles Sturt University, School of Human Movement Studies. He has published more than 30 journal papers, 32 invited papers, 22 conference proceedings, 21 professional industry reports, and presented 23 invited conferences addresses internationally across 4 countries. He was awarded the Vice-Chancellor's Award for Professional Excellence (2012), Strength of America Award, NSW Sports Safety Award, AAESS Medal, NSCA Graduate Research Award and ISC Scholar Award. Professional appointments occupied by Dr Bird include sports science consultant to Musashi Performance Nutrition, Basketball WA High Performance Program and the Perth Wildcats.

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