Resistance Training

for Special Populations

Quick Reference Guide

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Ann M. Swank

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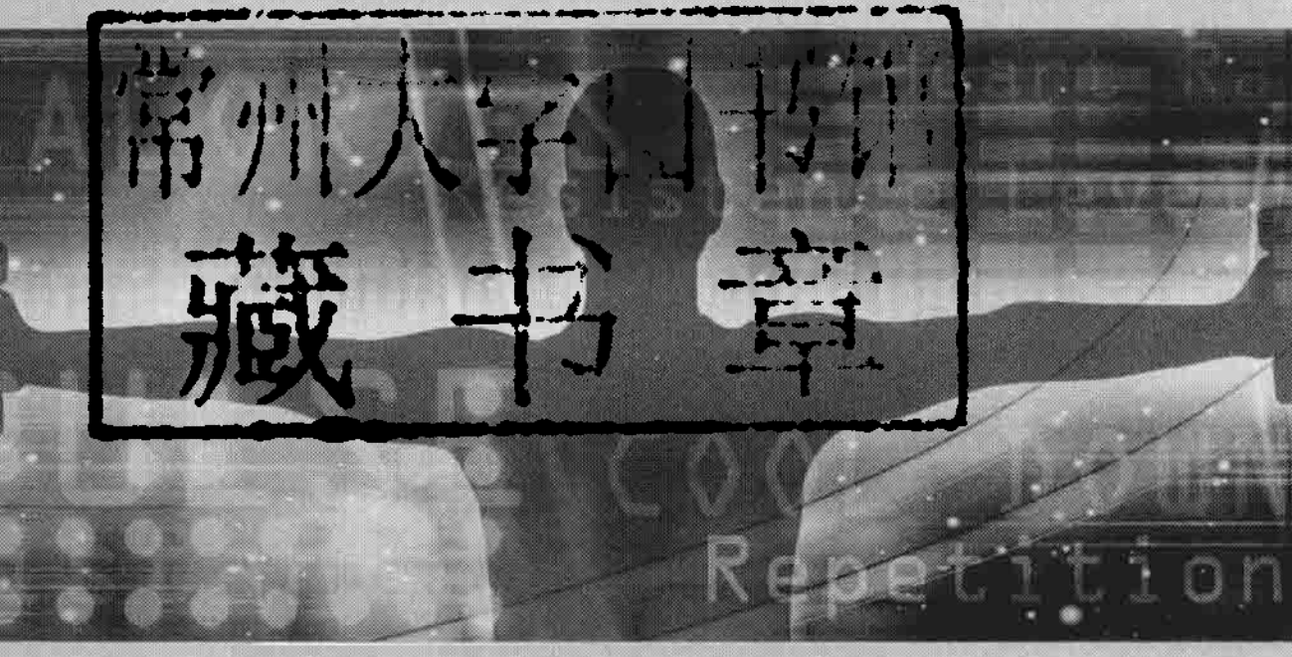

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Resistance Training for Special Populations Quick Reference Guide

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Dedication

To Carmen, Comehere, Ranger, Jake, Spike, Mookie, Sam, Sebastion, Santino, Puffer, Judy, Sheri, and Ricki for their inspiration, support, and encouragement

Preface

Resistance Training for Special Populations Quick Reference Guide is an abbreviated version of the textbook ***Resistance Training for Special Populations*** with a focus on the exercise programming variables. Like the main textbook, the quick reference guide offers evidence-based strategies for developing resistance-training programs for a variety of individuals with various medical conditions. National organizations such as the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), American Heart Association (AHA), and the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) support resistance training for all individuals as part of a well-rounded fitness program. Most current exercise programming texts for special populations focus on the cardiovascular recommendations. The current text is focused on designing and modifying effective resistance-training programs with the understanding that a complete health and fitness program should also include cardiovascular and flexibility training.

The textbook is composed of 17 chapters. Chapter 1 presents background information on resistance-training program design and the factors

such as dosage, rest periods, frequency, and other considerations when developing a program. Chapter 2 presents a "pictorial essay" of each of the different exercises recommended in the subsequent 15 chapters, each of which presents a special population including older adults; individuals with osteoporosis, osteoarthritis, low back pain, and chronic heart failure; obese adults and obese youths; individuals with type 1 and type 2 diabetes, coronary heart disease, chronic obstructive pulmonary disease, intellectual disabilities, and cancer; stroke survivors; and pregnant women. This list is by no means an exhaustive one, but rather it presents special medical conditions for which sufficient evidence exists to support safe and effective resistance training.

Each of the 15 chapters that addresses a special condition is organized to cover program design considerations, a sample 24-week program, and a case study derived from using the 24-week program. The 24-week sample programs provide readers with a starting point for development of the appropriate resistance-training program for their own clients or patients. The study questions pose specific considerations for a given condition that need to be addressed by altering the resistance-training program, such as an injury or the presence of a specific comorbidity. Accompanying the text is a CD containing summaries of the exercise programs developed for each population and space for the student to modify the program as needed. This template offers an evidence-based program as a starting point that can be modified in a variety of ways to fit the needs of individual clients and patients.

As indicated by the author biographies, the contributors for this text are a "who's who" in the

strength and conditioning arena. The authors and contributors for the introductory chapters and each of the special populations bring a substantial level of expertise and experience to the table. Each author was able to convey their expertise in a way that students should find helpful as they design programs for their clients and patients.

The audience for whom this text is written is diverse. This textbook would be relevant for any undergraduate or graduate programs on strength and conditioning, athletic training, exercise science, or exercise physiology and prephysical therapy. Each of these graduate and undergraduate programs would have at least one class, and possibly several, that address principles of exercise training, exercise programming, and strength and conditioning for which this textbook would be appropriate. In addition, this textbook could serve as a reference text for the practicing clinician serving in health and wellness clinics, as personal or athletic trainers, or in the area of rehabilitation medicine.

Historically, it was not long ago that resistance training was contraindicated for many medical conditions because of the physiological changes associated with training, such as increased blood pressure and so on. As research has been done, findings indicate that resistance training is safe, beneficial, and effective for many of these populations. *Resistance-Training for Special Populations: Quick Reference Guide* presents sample programs for a variety of special populations and provides the student or clinician with an opportunity to vary the template program provided or develop their own program.

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