Guiding the Young Athlete

Look after the kids—they are our future and were us years ago.

(11/11/2000)
This book is dedicated to the memory of Dr John Leigh McNee, who passed away unexpectedly on 3 February 1999, aged 57.
## Contents

**Acknowledgments** viii  
**About the authors** ix  
**Preface** xi  

1. Changes to the body during childhood 1  
2. Chronic health disorders and exercise 27  
3. Management of common injuries 44  
4. Training for speed, endurance and flexibility 85  
5. Training for strength 117  
6. Enhancing recovery 130  
7. Nutrition and exercise 139  

**Further reading** 162  
**Index** 167
Acknowledgments

The editors gratefully acknowledge the invaluable assistance of Judith Jenkins, who proofread the original manuscript; and Debbie Noon, who produced most of the figures.
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In the field of sports medicine, Dr John McNee will be remembered for his enormous commitment to the education of parents and coaches in the area of Children in Sport. He was a dynamic presenter who passionately defended the interests of youngsters. He was also extensively involved with Queensland Athletics and the Brisbane Strikers until his unexpected death on 3 February, 1999.
Preface

The purpose of this book is to provide information and advice to teachers, coaches and parents who wish to improve the fitness and health of young children and adolescents.

Scientists have long been aware of significant physiological differences between adults and children, yet most practical advice relating to fitness for children has been incomplete. In this book, we attempt to explain differences in the potential for exercise between children and adults and advice is offered on how children can exercise safely and effectively.

The book is organised into seven chapters. Chapter 1 compares key anatomical and physiological differences between girls and boys and between adults and children. These differences are important for understanding that activities and exercises performed by adults can be quite often dangerous for children. For example, performing low-intensity exercise in the heat carries a much greater risk of injury for children than it does for adults. This has
clear implications for the timing of events for children, the frequency of rest breaks, availability of drinks and so on.

The main message carried by Chapter 2 is that exercise and sport can help give all children, irrespective of their health, some degree of functional and psychological independence. Improvements in general fitness, heart, lung and muscle function coupled with social and psychological development all contribute to a more complete development of the child. Chapter 2 also explains how children with the more common chronic health problems can make the most of the opportunities offered by exercise and sport.

Chapter 3 reviews common injuries which children unfortunately sometimes suffer in the course of normal sporting activities. While this chapter contains some material that is technical and is presented from a medical perspective, we feel that if the injuries and their treatments were described in any less detail, valuable information would be lost. It is not our intention that this chapter turns children away from exercise and sport. Rather, we hope that the explanations and advice we have included may help in promoting a rapid recovery to full health should a child become injured.

We review the methods for improving speed, endurance and flexibility in Chapter 4. These components of fitness, coupled with strength development (Chapter 5), are potential areas where children may be expected, unreasonably and often with a considerable degree of risk, to follow similar training practices to adults. By using and applying some of the material covered in Chapter 1, we explain what to do and what not to do when speed, endurance, flexibility and strength are developed with children. Children have a smaller capacity for muscle growth, their bones are immature and they have a lower capacity for the
delivery and use of oxygen: these and other key physiological and anatomical differences all contribute to how we must view training with children differently to how we approach training with adults. In Chapters 4 and 5, therefore, we explain what children can reasonably be expected to do and what they can realistically achieve. We also highlight the types of exercise which children must avoid.

In Chapter 6 we discuss techniques for enhancing recovery from training and competition. Recovery is one of the most important components of a training schedule. Children, by virtue of their enthusiasm, often become involved in a number of different activities. As well as being involved in several different sports, many children also engage in extracurricular activities such as music and drama lessons on top of their normal school requirements. Chapter 6 explains sensible techniques which can be used to prevent chronic tiredness and injury resulting from excessive activity.

Chapter 7 covers nutrition and exercise for children. We review a number of nutritional issues which are unique to childhood and adolescence and which impact upon the child’s health as much as on his or her exercise capacity. This chapter also highlights specific nutritional problems and provides direction on how these can be avoided and/or resolved.

We hope the reader, be they a coach, parent or sports administrator, is enriched by the contents of this book. We also hope that the reader becomes acutely aware that children are not little adults and therefore need to be conditioned for sport differently than adults.

David Jenkins and Peter Reaburn
Guiding the Young Athlete is a practical and comprehensive guide for teachers, coaches and parents which will help them to develop suitable, safe and effective training programs for the child.

There are major differences between the anatomy and physiology of adults and children involved in training for health and sport but, traditionally, parents, coaches and teachers have treated children as 'miniature' adults when devising training and exercise schedules. Unlike adults, however, children are unaware of the limitations of their bodies and are therefore particularly vulnerable to injury or exhaustion while developing poor training practices and inadequate nutritional habits.

Providing the latest information and advice on exercise and fitness for young people, the authors outline the health benefits of exercise, along with practical precautionary measures to avoid over-training and injury. They also demonstrate that it is possible and, in many cases beneficial, to develop sensible training schedules for children suffering various chronic syndromes. Sensible nutritional guidelines for the child are also included.

David Jenkins and Peter Reaburn are both parents of young, active families. Former physical education teachers, they are now university lecturers in exercise physiology and sports nutrition and the editors of Training for Speed and Endurance.

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