Training for Young Distance Runners, 2nd ed.
Larry Green and Russ Pate

Unlike the first edition of Training for Young Distance Runners, which appeared in 1997 and was divided into three parts (“The Science of Distance Running”, “Essential Training Methods” and “Designing an Effective Training Program”) and twelve chapters, the second edition of this book by Larry Green and Russ Pate includes only two parts and ten chapters:

- Part I: Running Research
  - Chapter 1: Peak Development
  - Chapter 2: Teen Physiology
  - Chapter 3: Maximum Nutrition
  - Chapter 4: Champion Psyche
  - Chapter 5: Optimal Technique

- Part II: Training and Racing Programs
  - Chapter 6: Training Foundation
  - Chapter 7: Race-Specific Training
  - Chapter 8: Program Building
  - Chapter 9: Planning Training
  - Chapter 10: Program Evaluation

Although the structure of the book and much of its contents have changed, the key questions it addresses have remained the same:

- At what age should kids start training for competitive distance running?
- What distance should young runners cover in training and competition?
- Should young runners do high-intensity interval training? If so, what are good interval workouts?
- Is weight training beneficial or harmful for young runners?
- How important is technique?
- What sorts of foods should growing endurance athletes eat for performance and health?
- Do girls and boys have different training and nutritional needs?
- What are the best approaches to developing mental fitness for distance running?

In most cases, the answers given do not differ from the answers provided in the first edition of the book. However, there are some places where the authors have revised and further developed their ideas because new research has filled in knowledge gaps. For example, the question as to whether young runners should do high-intensity interval training was answered in the negative in the first edition. The reasons were that the then existing research indicated that compared to adult...
runners, young runners are extremely limited in producing energy to fuel high-intensity work. The research showed that children and adolescents lack important enzymes and hormones necessary to produce energy anaerobically. In recent years, however, research has revealed physiological mechanisms in children and adolescents that compensate for their lower capacity to perform anaerobic work. It has even been shown that young runners’ bodies can adapt favourably to high-intensity training. These new developments are discussed in detail in Chapter 2, “Teen Physiology”.

Starting with Alan Webb’s 3:53.43 mile in 2001, a performance that surpassed the U.S. high school record of 3:55.3 set 36 years earlier by the legendary Jim Ryun, the authors present the physiology of the energy systems via a fictitious attempt at Webb’s record. They examine in detail what happens during the course of the race: the energy systems engaged, the lactic acid accumulating, and the muscle fibres being recruited. In later chapters, where the reader is guided through the steps of designing training programmes and individual workouts (Chapters 7-9), this research is used to slightly increase the recommended amount of high-intensity interval training. The training concepts, however, are quite familiar: tempo running, interval training for tempo and aerobic capacity, fartlek, time trials, pace work. The concluding chapters offer sound advice on constructing the cycles that constitute periodisation. The abundance of mini programmes for each annual phase increases the practicability of the information provided.

Despite the latest research evidence that children and adolescents are able to tolerate a greater amount of anaerobic loads than previously expected, Greene and Pate do not recommend a lot of high-intensity training for beginners because it can cause musculoskeletal injuries. Instead they recommend a prudent approach to performance buildup based on ten developmental principles:

1. Limit training before puberty.
2. Consider individual differences.
3. Emphasise general fitness for beginners.
4. Increase training loads gradually.
5. Increase competition distances gradually.
6. Emphasise training for mental fitness.
7. Emphasize proper technique.
8. Set your sights on self-improvement.
10. Make it fun.

To sum up, Training for Young Distance Runners is unrivalled on the athletics book market. It is the only book that deals with young athletes’ distance training from such a broad range of perspectives. The second edition provides such a lot of new and updated information that it is worth buying even for coaches, young runners or parents who own the first edition. The book also shows that in spite of the increasing amount of information available on this topic in the internet, which often includes misleading and unsupported recommendations, the best approaches are based on sound scientific research and the experiences of established coaches and runners who even today prefer to spread their information via books by reputable publishers.

Reviewed by Jürgen Schiffer