Epilogue

Thanks to the ongoing educational efforts of many individuals and institutions, most people now recognize that it is necessary to stay physically fit in order to maintain optimal health. Because of the many potential health risks associated with spinal cord injury, exercise is at least as important, if not more so, for those who live with this condition. As has been discussed in various chapters in this guide, staying fit through participation in sports or other forms of exercise produces numerous long-term health benefits for people with SCI, including a decreased risk of cardiovascular disease and increased longevity. Exercise can also improve the rate of secondary complications, emotional state, sense of self-efficacy, functional independence, employment prospects, and social life of the person with SCI.

Unfortunately, despite increased physical fitness awareness, even much of the nondisabled population is still apparently unwilling or unable to participate in a regular, effective exercise regimen, with the result that obesity and related health problems are approaching epidemic proportions in this country. In the early phases of recovery from SCI, whatever tendency a person may already have toward leading an inactive lifestyle is compounded by the effects of the injury. A person who is just beginning to learn to cope with paralysis and all its attendant physical, psychological, and emotional effects, and who has become accustomed to long periods of immobilization and bed rest, may not be very highly motivated to begin an exercise regimen. It is the responsibility of health care professionals who oversee the rehabilitation of persons with SCI to appreciate just how important exercise is in terms of maximizing their patients' well-being, to be sure each patient is educated in this regard, and to work individually with each patient to help him or her develop an exercise program that is practical and effective.

But how much exercise is enough for a person with SCI to improve his or her health? At what point does exercise become excessive and harmful? The answer, unfortunately, is that we don't know yet. This brings me to the final, take-home message I hope to impart: to find out the answers to these critical questions, a tremendous amount of further research is needed. The chapters in this guide relate the knowledge that we do have, including information from numerous valuable studies that have already been completed. I hope this guide will also inspire people who are involved in the health care and rehabilitation of people with SCI to take the initiative to develop their own studies to help build our base of knowledge.

What are the factors that make some people disinclined to participate in exercise, even when they know they should and are physically able to, and what steps can be taken to increase their motivation? What improvements can be made in the techniques that are used to assess fitness levels and evaluate exercise performance? What type and/or rate of exercise most efficiently provides the greatest benefits? To what extent do the answers to these questions vary for people with different levels and severities of injury? And, as for wheelchair users who participate in sports, at what point are the benefits of their high fitness levels outweighed by the risk of substantial, irreversible

overuse injuries? What training techniques can wheelchair sportspersons use to maximize their performance levels while minimizing the long-term negative effects? By helping to answer questions like these, researchers can contribute significantly toward making further gains in the health, quality of life, and longevity of people with SCI.

David F. Apple, Jr., MD
Medical Director, Shepherd Center
Paralympics Chief Medical Officer, 1996
Atlanta, GA

*U.S. G.P.O.:1996-405-593:20009