

# Table of Contents

## I. Aerobic Training

A. What is Aerobic Conditioning? .....	5
B. Why Do It? .....	5
C. Preparing to Exercise .....	6
D. Warming Up/Cooling Down .....	6
E. F.I.T. Principle .....	7
F. How Hard Should You Exercise? .....	7
G. Program Design .....	8
H. Choosing An Aerobic Activity .....	8
I. Exercise Target Heart Rate Ranges .....	9
J. Getting Better .....	9
K. Guidelines to Overloading .....	10
L. References .....	10

## II. Resistance/Weight Training

A. Why Lift Weights? .....	11
B. Free Weights .....	12
C. Resistance Machines .....	12
1. Types	
2. Considerations	
D. Training Safely .....	13
E. Training Correctly .....	13
1. The Basics	
2. Free Weights	
3. Resistance Machines	
F. Training Effectively .....	15
G. Training With A Partner or Spotter .....	15
H. Hand Grip Positions and Widths .....	15
1. Grip	
2. Width	
I. Program Design .....	16
1. Basic Principles	
2. Number of Exercises	
3. Order of Exercises	
J. Specificity of Exercise .....	17
1. Specific Adaptation to Imposed Demands (SAID)	
2. Specificity	

K. Design Variables .....	17
1. Repetitions	
2. Sets	
3. Amount of Resistance	
4. Rest/Recovery	
5. Frequency	
L. Training Methods .....	18
M. Getting Better .....	19
1. Progressive Overload	
2. Overload Techniques	
3. Guidelines of Progression	
N. Article: High Intensity Weight Training .....	20
O. References .....	26
<b>III. Aquatics – Aquatic Therapy .....</b>	<b>27</b>
<b>IV. Communication</b>	
A. Communicating With People With Disabilities .....	31
B. Communicating About People With Disabilities .....	33
<b>V. Exercise Readiness &amp; Assessment</b>	
A. Age Related Concerns .....	36
1. Prepubescent and Adolescent Training	
2. Exercise Concerns of the Elderly	
3. Assessing Your Exercise Starting Points	
a) Flexibility and Posture	
b) Muscular Strength & Endurance	
B. Questions Designed to Help Trainers Develop Exercise Programs For Persons with Disabilities .....	42
1. Questionnaire	
<b>VI. Removing Barriers to Fitness Facilities: An Abbreviated Accessibility Survey .....</b>	<b>45</b>
<b>VII. Disability Specific Training Articles (Red Tabs)</b>	
A. Spinal Cord Injury (SCI) .....	55

1. Levels of SCI	
2. SCI	
3. SCI & Exercise	
4. Common Overuse Injuries in Wheelchair Users	
B. Amputation ( <b>AMP</b> ) .....	73
C. Post Polomyelitis ( <b>POLIO</b> ) .....	77
D. Muscular Dystrophy ( <b>MD</b> ) .....	81
1. MD	
2. Duchenne Muscular Dystrophy	
E. Multiple Sclerosis ( <b>MS</b> ) .....	93
1. MS	
2. Multiple Sclerosis	
F. Stroke ( <b>STROKE</b> ) .....	107
G. Acquired/Traumatic Brain Injury ( <b>TBI</b> ) .....	113
H. Mental Retardation ( <b>MR</b> ) .....	137
I. Down Syndrome ( <b>DOWN</b> ) .....	149
J. Cerebral Palsy ( <b>CP</b> ) .....	159
K. Parkinson’s Disease ( <b>PARK</b> ) .....	179
L. Developmental Disabilities ( <b>DD</b> ) .....	189
M. Visual Impairment ( <b>VI</b> ) .....	209

## **VIII. Appendix (Blue Tabs)**

A. Can Disability, Chronic Conditions, <b>Health and Wellness</b> Coexist? ...	219
B. <b>Health Promotion</b> for People with Disabilities: The Emerging Paradigm Shift From Disability Prevention to Prevention of Secondary Conditions .....	223
C. Rate of Perceived Exertion ( <b>RPE</b> ) Scale .....	235
D. Weight Training <b>Equipment</b> and Resources .....	237
1. Ergometers	
2. NCPAD Weight Training Equipment	
3. Producers of Exercise Equipment for People with Disabilities	
a. Rehabilitation Institute of Chicago	
b. Pulse	
c. No Boundaries	
d. Equalizer	
e. GPK, Inc	
E. Other <b>Resources</b> .....	279
1. How to Search the NCPAD Databases	
2. Rehabilitation Institute of Chicago (RIC)	
3. Limitless Sports	
4. Disability Related Sports and Recreation Links	
5. Disability Resources on the Internet	
6. Acknowledgements	