

Table of Contents

1	Introduction	1
	<i>M. Buck</i>	
1.1	The PNF Concept in Modern Holistic Treatment	2
1.2	PNF: Definition, Philosophy, Neurophysiological Basics	11
1.3	Test Your Knowledge: Question	12
	Further Reading	12
	References	12
2	Basic Procedures for Facilitation	15
	<i>M. Buck</i>	
2.1	Optimal Resistance	17
2.2	Irradiation and Reinforcement	18
2.3	Tactile Stimulus (Manual Contact)	18
2.4	Body Position and Body Mechanics	22
2.5	Verbal Stimulation (Commands)	22
2.6	Visual Stimulus	23
2.7	Traction and Approximation	24
2.8	Stretch	25
2.9	Timing	26
2.10	Patterns	27
2.11	Test Your Knowledge: Questions	27
	Further Reading	30
	References	30
3	Techniques	33
	<i>D. Beckers</i>	
3.1	Introduction	34
3.2	Rhythmic Initiation	34
3.3	Combination of Isotonics	35
3.4	Reversal of Antagonists	37
3.5	Repeated Stretch (Repeated Contractions)	43
3.6	Contract–Relax	45
3.7	Hold–Relax	47
3.8	Replication	49
3.9	PNF Techniques and Their Goals	49
3.10	Test Your Knowledge: Questions	50
	Further Reading	50
	References	51
4	Patient Treatment	53
	<i>M. Buck, D. Beckers</i>	
4.1	Introduction	54
4.2	Assessment	54
4.3	Hypothesis	55
4.4	Tests for Causal Impairments and Activity Limitations	55

4.5	Treatment Goals	55
4.6	Treatment Planning and Treatment Design	56
4.7	Re-Test for Causal Impairments and Activity Limitations	58
4.8	Treatment Examples	58
4.9	Test Your Knowledge: Questions	60
	Further Reading	60
	References	61
5	Patterns of Facilitation	63
	<i>D. Beckers</i>	
5.1	Introduction	64
5.2	PNF Patterns	64
5.3	Test Your Knowledge: Questions	66
	Further Reading	68
	References	68
6	The Scapula and Pelvis	69
	<i>M. Buck, D. Beckers</i>	
6.1	Introduction	70
6.2	Applications	70
6.3	Basic Procedures	70
6.4	Scapular Diagonals	72
6.5	Pelvic Diagonals	79
6.6	Symmetrical, Reciprocal, and Asymmetrical Exercises	85
6.7	Test Your Knowledge: Questions	88
	Further Reading	88
	Reference	88
7	The Upper Extremity	89
	<i>D. Beckers</i>	
7.1	Introduction	91
7.2	Basic Procedures	91
7.3	Flexion–Abduction–External Rotation	93
7.4	Extension–Adduction–Internal Rotation	99
7.5	Flexion–Adduction–External Rotation	105
7.6	Extension–Abduction–Internal Rotation	111
7.7	Thrust and Withdrawal Combinations	117
7.8	Bilateral Arm Patterns	119
7.9	Changing the Patient’s Position	121
7.10	Test Your Knowledge: Questions	125
	Further Reading	125
8	The Lower Extremity	127
	<i>M. Buck</i>	
8.1	Introduction	128
8.2	Basic Procedures	128
8.3	Flexion–Abduction–Internal Rotation	130
8.4	Extension–Adduction–External Rotation	136

8.5	Flexion–Adduction–External Rotation	142
8.6	Extension–Abduction–Internal Rotation	146
8.7	Bilateral Leg Patterns	152
8.8	Changing the Patient’s Position	155
8.9	Test Your Knowledge: Questions	162
	References	162
9	The Neck	163
	<i>D. Beckers</i>	
9.1	Introduction	164
9.2	Basic Procedures	164
9.3	Indications	166
9.4	Flexion to the Left, Extension to the Right	166
9.5	Neck for Trunk	171
9.6	Test Your Knowledge: Questions	175
	References	176
10	The Trunk	177
	<i>D. Beckers</i>	
10.1	Introduction	178
10.2	Treatment Procedures	178
10.3	Chopping and Lifting	179
10.4	Bilateral Leg Patterns for the Trunk	185
10.5	Combining Patterns for the Trunk	190
10.6	Test Your Knowledge: Question	190
	References	192
11	Mat Activities	193
	<i>M. Buck</i>	
11.1	Introduction: Why Do Mat Activities?	194
11.2	Basic Procedures	194
11.3	Techniques	195
11.4	Mat Activities	195
11.5	Patient Cases in Mat Activities	231
11.6	Test Your Knowledge: Question	236
	Further Reading	236
	Reference	236
12	Gait Training	237
	<i>D. Beckers</i>	
12.1	Introduction: The Importance of Walking	238
12.2	Basics of Normal Gait	238
12.3	Gait Analysis: Observation and Manual Evaluation	242
12.4	The Theory of Gait Training	243
12.5	The Procedures of Gait Training	244
12.6	Practical Gait Training	245
12.7	Patient Cases in Gait Training	268
12.8	Test Your Knowledge: Questions	274

Further Reading	274
References	274
13 Vital Functions	275
<i>M. Buck</i>	
13.1 Introduction	276
13.2 Facial Muscles	276
13.3 Tongue Movements	286
13.4 Swallowing	286
13.5 Speech Disorders	288
13.6 Breathing	288
13.7 Test Your Knowledge: Questions	291
Further Reading	291
14 Activities of Daily Living	293
<i>D. Beckers, M. Buck</i>	
14.1 Introduction	294
14.2 Transfers	296
14.3 Dressing and Undressing	297
14.4 Test Your Knowledge: Question	300
Further Reading	300
15 Test Your knowledge: Questions and Answers	301
<i>D. Beckers, M. Buck</i>	
Service Section	307
Glossary	308
Index	310