

Chapter 1: G.A.Iizarov	1
Chapter 2: Biomechanical Consideration	2
• <i>Biomechanics of Wires</i>	2
• <i>Biomechanics of Rings</i>	3
• <i>Acute Compression Methods (Docking)</i>	5
• <i>Gradual Compression Methods</i>	5
• <i>Combined Compression Distraction and Accordion Technique</i>	6
• <i>Corticotomy</i>	7
• <i>Stiffness</i>	8
• <i>Histogenesis of Soft Tissue</i>	10
Chapter 3: Radiological Evaluation	12
<i>Dinesh Singh</i>	
• <i>Surface Characteristics</i>	13
• <i>Status of Previously Implanted Hardware</i>	14
• <i>Deformities</i>	14
• <i>Computed and Plain Tomography</i>	18
• <i>Nuclear Imaging</i>	18
• <i>Other Radiologic Studies</i>	19
• <i>Ultrasound Evaluation</i>	19
Chapter 4: Instruments	21
• <i>Primary Components</i>	21
• <i>Secondary Components</i>	30
• <i>Modifications</i>	31
Chapter 5: Basic Principles of Assembling a Frame	42
• <i>Assembly Types</i>	42
• <i>Rings, Positioning, Types</i>	42
• <i>Bone Fixation with Half Pins</i>	54
• <i>Rods Placement</i>	59
Chapter 6: Indications of Ilizarov Surgery	62
Chapter 7: Basic Assembly for Fracture of Tibia	63
• <i>Classification as per Ilizarov</i>	63
• <i>Positioning of Leg</i>	64
• <i>Insertion of Wires</i>	64
• <i>Special Consideration in displacement</i>	67
Chapter 8: Basic Assembly for Fracture of the Femur	68
• <i>Anatomic Consideration</i>	68
• <i>Special Consideration</i>	70

Chapter 9: Fractures of the Humerus	71
• <i>Application</i>	71
Chapter 10: Fractures of the Forearm	72
• <i>Positioning of limb</i>	72
• <i>Special Consideration</i>	72
Chapter 11: Non Unions	74
• <i>Definitions</i>	74
• <i>Fracture Repair</i>	74
• <i>Etiology of Non Unions</i>	76
• <i>Instability</i>	77
• <i>Infection</i>	78
• <i>Nicotine/Cigarette Smoking</i>	78
• <i>Certain Medications</i>	78
• <i>Other Contributing Factors</i>	78
• <i>Classification and Treatment Plan</i>	80
• <i>Treatment Plan on Basis of Classification</i>	87
• <i>Principles of Treating Nonunion of Femur</i>	90
• <i>Special Consideration in Humerus Nonunion</i>	91
• <i>Synostosis Techniques</i>	92
Chapter 12: Limb Length Discrepancy	95
• <i>Prediction of limb length discrepancy</i>	95
• <i>Eastwood and Cole Method</i>	95
• <i>Bone Lengthening</i>	99
• <i>Special Consideration</i>	104
• <i>Lengthning in Femur</i>	105
• <i>Lengthening in Humerus</i>	106
Chapter 13: Correction of Deformities about Knee	107
• <i>Principles of Cora Mechanical Axis</i>	107
• <i>Osteotomy for Correction</i>	111
Chapter 14: Joint Contracture Correction Using Ilizarov	115
• <i>Principles</i>	115
Chapter 15: Congenital Pseudarthrosis of Tibia	117
• <i>Procedure</i>	117
• <i>Considerations</i>	118
Chapter 16: Post Operative Management	119
• <i>Immediate Primary</i>	119
• <i>Immediate Secondary</i>	119
• <i>Late Treatment</i>	120
• <i>Fixator Removal</i>	120
• <i>Steps of Removal</i>	121

Chapter 17: Rehabilitation in Patients with Ilizarov Assembly	123
<i>Jayant Sharma, Juhi Sharma</i>	
Chapter 18: Unwanted and Avoidable Situations during the Course of Treatment	125
• <i>Problem</i>	<i>125</i>
• <i>Complication</i>	<i>125</i>
• <i>Other Minor Complications</i>	<i>128</i>
Chapter 19: Recent Advances in Ilizarov and Type Devices	129
<i>Prashant Upadhyaya, Jayant Sharma</i>	
• <i>Limb Reconstruction System</i>	<i>129</i>
• <i>Equipment design</i>	<i>129</i>
• <i>Accessory assembly</i>	<i>131</i>
• <i>Cleaning of Apparatus</i>	<i>132</i>
• <i>Taylor's Spatial Frame (Hexa Pod)</i>	<i>134</i>
Chapter 20: Glossary of Terms used in Ilizarov Surgery	139
• <i>A-C</i>	<i>139</i>
• <i>D-O</i>	<i>140</i>
• <i>P-Z</i>	<i>141</i>