Contents

1. Pain Neck—Old and New Concepts **1**
Brachial Neuralgia 1
Cervical Spondylosis 4
Fibromyalgia Syndrome 6

2. Rheumatoid Arthritis **12**
Rheumatoid Arthritis 13
Juvenile Rheumatoid Disease 20

3. Osteoarthrosis **24**
Osteoarthrosis of Knee 24
Periarthritis Shoulder 30

4. Imaging in Orthopedics **35**
Ultrasound 35
X-rays 36
CT Scan 41
Bone Densitometry 43
Magnetic Resonance Imaging 43

5. Current Concepts in Management of Fractures **45**
First Aid in Injuries 46
Greenstick Fracture 47
Stress Fractures 47
Conservative Management 47
Some Common Fractures 49

6. Injuries of Ligaments **70**
Wrist 71
Elbow 71
Shoulder Joint 72
Knee 72
Sprained Ankle 74
Dislocations 74
Hip 77

7. Low Backache **78**
Functional Unit of Spine 79
Conservative Management 84
Operations for Low Backache 90
Methods to Prevent Low Backache 90

8. Bone and Joint Infections **93**
Acute Osteomyelitis in Children 93
Chronic Osteomyelitis in Children 94
Acute Osteomyelitis in Adults 96
Chronic Osteomyelitis in Adults 96
Infective Arthritis 99

9. Skeletal Tuberculosis **100**
Etiopathogenesis 100
Histology 101
Spinal Orthosis 104
Operations 105
Rehabilitation 106

10. Common Congenital Anomalies **108**
Clubfoot—Congenital Talipes Equinovarus 108
Ponseti Method 112
Other Common Congenital Anomalies 113
Congenital Pes Planus due to Tarsal Coalition 113
Congenital Dislocation of Hip 114
Congenital Radial Club Hand 116
Polydactyly and Syndactyly 116

11. Bone Tumors **118**
Secondary Tumors of Bone 118
Primary Tumors of Bone 119
Osteoid Osteoma 120
Osteochondroma 120
Solitary Bone Cyst 121
Malignant Bone Tumors 122
Giant Cell Tumor 122
Osteosarcoma 123
Ewing's Sarcoma 125
Multiple Myeloma 126

12. Obesity **127**
Pathophysiology 127
Diseases Causing Obesity 128
Diseases as a Result of Obesity 129
Diagnosis 130
Treatment 132

13. Common Nerve Palsies **135**
Cut Injuries 135
Impalement by Bone 136
Tight Bandages 136
Tourniquette Palsy 137
Systemic Illnesses 137
Injection Palsy 138
Clinical Picture 138
Radial Nerve 138
Ulnar Nerve 139
Median Nerve 139
Lateral Popliteal Nerve 140
Classification of Nerve Injuries 140
Diagnostic Tests 141
Abnormal Spontaneous Potentials 141
Nerve Conduction Velocity 142
Operative Procedures 143

Conservative Methods 143
Principles of Physiotherapy in Nerve Injuries 145
Preoperative Assessment and Training 148
Some Common Operative Procedures 149

14. Physiotherapy 150
Heat 151
Cryotherapy 153
Hydrotherapy 153
Interferential Therapy 154
Electrical Stimulation 154
Specific Indications 156
Exercise Therapy 156
Massage 160
Traction 162
Gait Training 163
Pilates 163
Caution 164

15. Bandages 165
Bandages 165
Strapping 166
Elastocrepe Bandages 167
Plaster of Paris (POP) 167
Specific Casts 169

16. Orthoses and Prostheses 172
Definitions 172
Orthosis 173
Cervical Collar 175
Lumbosacral Corsette 176
Axillary Crutches 176
Elbow Crutch 177
Tripod Walking Aid 177
Knee Brace 178
Foot Drop Splint 178
Amputations 178
Phantom Pain 180
Prosthesis 181

Annexure 1: Interesting Investigations 183
Annexure 2: Ortho on the Web 188
Index 191