

# Orthopedics of the Upper and Lower Limb



K. Mohan Iyer

Editor

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 Springer

*Editor*

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*Dedicated to my wife,  
Nalini K. Mohan  
And  
Daughter, Dr. Deepa Iyer  
M.B.,B.S.,MRCP(UK)  
And  
Son, Mr. Rohit Iyer, B.E.*



# Foreword



Several decades ago I was fortunate to hear Dr. Iyer speak about a limited, posterior greater trochanteric osteotomy as an adjunct to a posterior approach to the hip. Since then I have used this method, as it allows easy access to the hip for joint replacement and then a secure posterior capsule and short external rotator muscle repair upon joint closure. Postoperative dislocations ceased to be an issue. As you might recognize, I have looked forward to additional contributions from Dr. Iyer, and here we have it – General Principles of Orthopedics and Trauma, Orthopedics of the Upper and Lower Limb and Trauma management in Orthopedics (Springer).

What a huge task to organize such books: Deciding on the material to be included, writing multiple chapters, and asking for skilled contributors who will embrace the challenge and have the talents to write either a general or subspecialty chapter. The text is aimed at the newcomer to this field of medicine, and it will serve that purpose quite well. I have always felt the best approach to learning orthopedic surgery is to read, cover to cover, a text such as this, aggressively study anatomy, read about the problems in the patients under one's care, read subspecialty texts, and read at least the abstracts in selected journals. By doing these things one can be an educated person in the field – but it starts with the basic text!

In addition to the fundamentals, Dr. Iyer has added details about trauma and regional orthopedics. A cad has said only two types of doctors are necessary, and the others are optional. One of these is a physician who cares for broken bones. Details about fractures are essential to the field and to humanistic patient care. The regional chapters serve as a transition to the later reading about each anatomic region in detail, what will be required to become an orthopedic surgeon.

So there you have it. An editor who is an energetic, dedicated scholar and teacher. Plus, the type of textbook most needed to jump into the field of musculoskeletal medicine and surgery. Learning is a joy. Lucky readers, enjoy the intellectual journey.

Rochester, MN, USA

Robert H. Cofield, M.D.



# Preface

This book is mainly an introduction to the principles of Orthopedics, which is written by different Orthopedic Surgeons, who have specialized in the subjects they have written in. This volume details various Orthopedic conditions (other than trauma) by regions in the upper and lower limb.

I was an undergraduate and post-graduate teacher at the University of Liverpool, UK, and the University of London, UK, for the undergraduates and for the final FRCS candidates. On returning home to Bangalore, India, I was an undergraduate teacher at St. John's Hospital, Bangalore, India, and at M.S. Ramaiah Medical Teaching Hospital, Bangalore, India, and I am indebted to all my students for their constant desire to master Orthopedics at their young age. Above all, I would like to thank all my teachers who did not spare any effort to discuss with me topics of Orthopedic interest, both in the lecture hall and in their spare time.

I am deeply indebted to my dear friend, Mr. Magdi E. Greiss, M.D., M.Ch. (Orth), FRCS, Senior Consultant Orthopedic Surgeon North Cumbria University Hospitals, UK, Former President, BOFAS, UK, for his timely help in specially preparing the snaps that have been used in this book, despite him being extremely busy in setting up of a foot and ankle clinic for the World Orthopaedic Concern in developing countries.

I would express my sincere thanks to Mr. Adhish Avasthi, M.B.B.S., M.S. Orth., MRCS Registrar Orthopedics and Mr. Richard Hill, M.B. Ch.B., FRCS Ed, FRCS (Tr & Orth) Ed, Consultant Orthopedic Surgeon, Department of Trauma & Orthopedics, St Richard's Hospital, Chichester PO19 6SE, West Sussex, UK, for his comprehensive description on Common Sports Injuries, which is a subspeciality in vogue at the moment. I would also like to thank Dr. Suhas Namjoshi, Consultant Radiologist, Hillingdon Hospital, London, UK, M.B.B.S. (Bom), DMRE (BOM), DMRE(Liverpool), FRCR (UK), for his unique chapter on 'Role of Radiology and Imaging in Orthopedics', which is written up to give students an idea of the importance of Radiology and Imaging in Orthopedics. I would thank Dr. Geethan I, M.S. Orth., DNB (Orth), Orthopedic Surgeon, Fellow, Ortho One, Speciality Hospital, Coimbatore, India, and Dr. David V. Rajan, M.S. Orth., MNAMS, FRCS (G) Consultant Orthopedic Surgeon, Director, Ortho One, Coimbatore, India, and Past

President of the Indian Arthroscopy Society for their timely help on the chapter on 'Arthroscopy of the Knee Joint', which was specially written up for this book.

I would like to thank Sharad Goyal, D.Orth. (Gold Med), M.S. Orth., DNB Orth, M.Ch. Orth. (Liv), Orthopedic Surgeon, Department of Trauma & Orthopedics, St Richard's Hospital, Chichester PO19 6SE, West Sussex, UK for his active interest and help in completing my book.

Finally, I would like to thank Dr. Robert H. Cofield, M.D., Emeritus Chairman, Department of Orthopedic Surgery, Mayo Clinic, Professor of Orthopedics, Mayo Clinic College of Medicine, Rochester, MN, for his ever encouraging foreword for this book of mine.

I would like to express my sincere thanks to Springer-Verlag for their kind permission to allow me to reproduce 35 snaps of my book entitled *Clinical Examination in Orthopedics* (Springer) for this book of mine.

Above all I would like to thank Mr. Steffan D. Clements, Editor, Clinical Medicine, Springer (London) for his untiring guidance in the preparation of this book.

I would like to express my sincere gratitude and thanks to all the Orthopedic Surgeons for their valuable contribution in their subspecialties. This textbook is mainly valuable and a must for the beginner who faces Orthopedics as he encounters in daily life, and, when combined with my book entitled *Clinical Examination in Orthopedics* (Springer), would make him complete in all aspects of Orthopedics, both clinical and theoretical.

I am very grateful to my son who has helped me in the tables, corrections, diagrams, charts and formatting of this book and its presentation.



A handwritten signature in blue ink, which appears to read 'K. Mohan Iyer'. The signature is written in a cursive style with a horizontal line underneath.

**(Dr. K. Mohan Iyer)**

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I am extremely thankful to Dr. Dilip Malhotra, M.S. Orth., M.Ch. Orth., FICS, Consultant Orthopedic Surgeon, International Hospital Bahrain, for his valuable help in clinical photographs and radiographs. I am indebted to Mr. S. Siddiqui, M.S. Orth., FRCSOrth, Consultant Orthopedic Surgeon, Kettering General Hospital, Kettering, UK. for his contribution on the chapter on the Hand and Fingers in Regional Orthopedics and for the chapter on the Hand and Fingers in Orthopedic Trauma. I would like to thank Mr. Shaishav Bhagat M.S. (Ortho), MRCS (Edinburgh), FRCS (Tr. & Orth), Specialist registrar, Kettering General Hospital, UK, who has written the chapters on Polytrauma and Trauma in the Foot and Ankle along with Mr. Bhavik M. Shah M.S. Orth., M.Ch. Orth., FRCSOrth, Consultant Orthopedic Surgeon, Kettering General Hospital, Kettering, UK. I would express my gratitude to Mr. D. K. Menon M.S. Orth. (AIIMS), DNB (Orth), M.Ch. (Orth) Liverpool, FRCS (Tr & Orth).

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I would like to express my gratitude to Dr. Suhas Namjoshi, MBBS (Bom), DMRE(BOM), DMRE(Liverpool), FRCR (UK) Consultant Radiologist, Hillingdon, UK, for his chapter on Role of Radiology and Imaging in Orthopedics. I am also grateful to Prof. Naresh Shetty, Dean and Professor of Orthopedics, M.S. Ramaiah Medical Teaching Hospital for writing up the chapters on Carpal Tunnel syndrome and Dequervain’s stenosing tenovaginitis in Regional Orthopedics and in Fractures

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# Contents

## Part I The Upper Limb

<b>1 The Shoulder Joint</b> .....	3
K. Mohan Iyer	
<b>2 The Arm</b> .....	19
K. Mohan Iyer	
<b>3 The Elbow</b> .....	23
K. Mohan Iyer	
<b>4 The Forearm</b> .....	29
K. Mohan Iyer	
<b>5 The Wrist Joint</b> .....	35
K. Mohan Iyer and Naresh Shetty	
<b>6 The Hand and Fingers</b> .....	43
Shabih Siddiqui	
<b>7 The Thumb</b> .....	47
Shabih Siddiqui	
<b>8 Hand Infections</b> .....	49
Shabih Siddiqui	

## Part II The Lower Limb

<b>9 The Hip Joint</b> .....	57
Dipen K. Menon	
<b>10 The Knee Joint</b> .....	85
K. Mohan Iyer	

<b>11 The Leg</b> .....	121
K. Mohan Iyer	
<b>12 The Foot and Ankle</b> .....	125
K. Mohan Iyer	
<b>13 The Great Toe</b> .....	151
K. Mohan Iyer	
<b>Index</b> .....	169

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