

PREFACE

In this day of advanced diagnostic modalities and vast understanding of human lower extremity biomechanical function, and pathologic malfunction, there is still far greater to be known—than is now known. Professor Paolo Ronconi has taken another giant step (one of the first being the first edition of this book) to help the universe of foot surgeons cross this abyss of nebulous understanding of what the foot and ankle are really doing during gait, how different “segments” are interrelated and effected, and how we as foot surgeons should address this extremely complex endeavour of restoring foot function surgically.

Mathematics is the universal language of science, and is also therefore of medicine, and is also the arbiter of what is fact and what is fiction—more simply put: “it allows for less “Art” and more science when we treat patients.” This is important for the simple reason that due to the complexity of the dynamic foot, any “mathematical” information simply and irrefutably leads to better patient outcomes via better surgical planning and ultimate techniques.

There is still much controversy in the United States regarding pedal biomechanics, and this largely stems from two things: dogma which has been taught based solely on what can now be thought of as “primitive” observations and clinical applications beginning in the 1960’s-- and has been taught for so long “it must be true.” Secondly, the limited, or lack of application of true mathematical modelling of dynamic foot function.

Professor Ronconi has dedicated his career of orthopaedic surgery with a heavy focus on lower extremity foot and ankle surgery, and has based that on true mathematical applied principles. I found his first edition extremely useful from a practical point, and exciting because it brought this sometime difficult to understand subject to me in a different way, and with a different perspective. I have been fortunate enough to have spent time with him intra-operatively several times, and each time has been incredibly valuable. His tutelage of 1st ray mechanics, specifically Hallux Rigidus/Limitus techniques (which he applied trigonometry to the type of osteotomy needed and is well illustrated in both editions), has been used in our practices now for almost 15 years. I can say that hundreds of patients have had extremely good outcomes, with almost no failures, in our treatment of this common pedal condition due to the fact that we were able to implement his approach surgically.

It is an extreme honour for me to have learned from him, and I thank him for his ongoing, relentless and passionate journey to demystify some of these remaining biomechanical mysteries of the dynamic foot and ankle. I know that the reader of this text will gain additional insight into this complex subject regardless of what stage they are in their career. I hope that this book is edited soon into English so that Professor Ronconi’s work can be integrated into the curriculum of training our foot and ankle surgeons in the US.

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