ORTHOPAEDICS

Principles and Their Application

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To My Son

Charles David Turek, M.D.

Who Represents the Future of

Orthopaedic Surgery

Foreword

Several years ago Dr. Turek came to my office and talked with me about the possibility of preparing a textbook or reference book on orthopaedic surgery. Not since the second edition of Jones and Lovett was published in 1929 has there been a truly comprehensive reference book dealing with the general principles of orthopaedic surgery. I tried to discourage Dr. Turek by relating to him the extremely arduous labor which would confront him if he did undertake so massive a task. He could not be discouraged so easily, and for these past several years he has sacrificed his own private practice and given almost all of the time which should have been assigned to his leisure to the writing and the preparation of this volume.

Vaccines, antibiotics and new developments in surgery have greatly changed the orthopaedic practice during the last two decades. The author of a new textbook must emphasize these changed aspects of the orthopaedic picture. Dr. Turek has attempted to do this by giving much space to the description of general orthopaedic conditions such as osteoporosis, metabolic bone diseases and to orthopaedic neurology. The thorough manner in which he has discussed basic principles and fundamentals, such as embryology, histology and physiology of bones and joints is indeed commendable. It is hoped that this will prove to be a textbook of value to the medical students and a book of reference for the experienced surgeon.

EDWARD L. COMPERE, M.D.

Preface to the Second Edition

The specialty of orthopaedic surgery is indivisible from other fields of medical science. Evolution of new diagnostic and therapeutic measures elsewhere must naturally have a parallel influence upon the orthopaedic surgeon; conversely, any improvement in skills related to the musculoskeletal system will be reflected in other specialties. As an example, surgery to correct a painful disability in a cardiac patient is no longer prohibitive and may even dramatically effect considerable improvement in the cardiac status. Therefore, it is essential that the orthopaedic surgeon become a well-read individual, highly sophisticated in the medical disciplines, particularly as they are related to his field of interest. His perspective must never be narrowed, his thirst for knowledge never quenched, and his curiosity for the unknown never restrained. His decisions must take into account the whole human being. This philosophy pervades this book, for only by probing and exploring beyond the generally accepted limits of orthopaedic surgery and being prepared to reject time-worn ideas as truths begin to unfold can one say that this represents a record of continuing progress in this specialized field.

Vast strides are being made in orthopaedic surgery. The specialty has only just emerged from its formative stages and has yet to reach maturity. A tremendous complex of interrelated problems are continuing to present gargantuan challenges which are being met boldly. In the laboratory the electron microscope and advanced histologic technics, such as frozen-tissue preparations, radioisotopes and chemical analysis, are revealing the ultrastructure and the metabolic processes of connective tissue. Teaching methods have undergone radical change so that the orthopaedic neophyte while yet within the medical school environs may begin to correlate the new fund of knowledge with his chosen specialty. The full-time teacher is now playing an important role in coordinating and supervising activities related to research and the preparation of the maturing specialist. Better diagnostic procedures and surgical technics are being developed.

This book, which is designed to provide a guide to the principles and the practice of orthopaedic surgery, must keep pace with changing concepts. It must remain forever a record of accurate up-to-date information derived from authoritative sources. It is because of this dynamism of change that this book can never remain unalterable.

Progress in related medical specialties is having a profound effect on the concepts originally outlined 10 years ago. For example, cerebrovascular disease is now known to be intimately related to degenerative disease of the cervical spine, and some of the symptoms formerly attributed to nerve root compression are now known to result from inadequate blood flow through the carotid and the vertebral artery channels to the base of the brain. Vascular disease is being differentiated more readily as a cause of pain in an extremity and may be successfully dealt with surgically. New concepts in surgical technic have improved the outlook in certain diseases such as osteogenesis imperfecta and cerebral palsy. Increasing interest in deformities of rheumatoid arthritis is formulating basic principles of treatment. Some progress has been made in clarifying the nature of cervical injuries. These are only a few of the many subjects which have been added to this edition. Needless to say, many corrections and deletions have been a natural consequence of the enlightenment of time, and it is anticipated that this book will continue to undergo transformation. A principle is only basic to the conditions of the moment, and with an awakening to further knowledge new fundamentals are born.

The very nature of orthopaedic surgery creates an inexhaustible source of material for the inquisitive mind, and the possibilities are endless. It is hoped that this textbook will not only provide a continuing reference of fundamentals but will also motivate the orthopaedic surgeon to fulfill his mission as a surgeon, a teacher and a research scientist.

SAMUEL L. TUREK, M.D.

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