

Manter and Gatz's
Essentials of
Clinical
Neuroanatomy
and
Neurophysiology
EDITION 8

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Preface to the Eighth Edition

The rapid growth of research in both the basic and clinical neurosciences that occurred within the past two decades has continued over the last five years. This has resulted in a proliferation of knowledge in essentially all fields of neuroscience. We undertook the present revision to keep this book up-to-date with the many recent developments in neuroanatomy, neurophysiology, neuropharmacology, and clinical neurology. We have thoroughly revised and updated each chapter and added three new chapters: (1) the physiology of nerve cells; (2) the blood supply to the brain; and (3) the clinical approach to the patient with a neurologic disease. We added the third new chapter so that this book will be useful not only to the student beginning to learn neuroanatomy and neurophysiology but also to medical students making the transition between their basic science and clinical studies. We hope that this chapter will provide a useful guide to students approaching patients with symptoms referable to the nervous system.

In the current revision we have continued to emphasize physiologic concepts within the context of the anatomical organization of the nervous system. We have also pointed out systematically the clinical relevance of the major anatomical structures of the nervous system. We have expanded the index, updated many of the previous illustrations and added several new illustrations. We have continued to provide a suggested reading list so that the student interested in obtaining further information about the topics covered can have a guide to the literature. We have restricted the list to current textbooks and monographs except for a few individual papers that are relevant to some of the new concepts described in the book.

In this new edition, we have again adhered to Dr. Manter's original objective of providing a short but comprehensive survey of the human nervous system. We have written the book for the beginning student who wishes to read a brief, clinically-oriented overview of neuroanatomy and neurophysiology to summarize the material in more comprehensive textbooks. Our book will be useful also for advanced students wishing to review this material rapidly. We hope that the book will be helpful to house officers in neurology, neurosurgery, psychiatry, and physical medicine and rehabilitation who wish to update their knowledge.

We thank Margaret Brudon for revising some of her previous illustrations and producing new figures and Diane Vecellio for typing the manuscript.

Sid Gilman, M.D.

Sarah Winans Newman, Ph.D.

Preface to the First Edition

This book has been written with the object of providing a short, but comprehensive survey of the human nervous system. It is hoped that it will furnish a unified concept of structure and function which will be of practical value in leading to the understanding of the working mechanisms of the brain and spinal cord. Neither of these two aspects—structure and function—stands apart from the other. Together they furnish the key to the significance of the abnormal changes in function that go hand in hand with structural lesions of the nervous system. The viewpoints of three closely dependent sciences—neuroanatomy, neurophysiology, and clinical neurology—are combined and used freely, not with the intent of covering these fields exhaustively, but in the belief that a more discerning approach to the study of the nervous system can be attained by bringing together all three facets of the subject.

To suit the needs of the medical student, or the physician who wishes to review the nervous system efficiently, basic information is presented in concise form. Consequently, it has not been feasible to cite published reports of research from which present concepts of the nervous system have evolved. The planning and arrangement of the chapters are such that whole topics can be covered rapidly. Presenting the subject material to classes in this form allows more time for discussion and review, or, if the teacher desires, for lectures dealing with advanced aspects, than would otherwise be permitted.

For the encouragement and valuable suggestions they have given me, I am indebted to my former colleague, Dr. William H. Waller, Jr., and to Dr. Lester L. Bowles. I am deeply grateful to Mr. A. H. Germagian for executing most of the drawings and diagrams, and to Mr. Richard Meyers for his special assistance with the illustrations.

JOHN T. MANTER

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