

DON'T SKIP THIS INTRODUCTION

Today you are faced with the problem of having to know more and more material in a shorter and shorter period of time. With neuroanatomy this problem is compounded because it is one of the most difficult subjects to grasp. Most “neuro” texts are very broad in scope and crammed with seemingly endless details. At this stage, however, you’re unable to separate the wheat from the chaff—that is, to distinguish what is important for you from what is not. Consequently, you usually try to learn it all because you’re afraid something that you missed will appear on the exam. Under conditions of high pressure and little time, this usually results in a monumental effort of memory accompanied by little understanding and retention.

In this book, the fat of extraneous details, theories, and the like have been cut out, leaving the essentials that form the basis of neuroanatomy, neurophysiology, neuropharmacology, physical diagnosis, and neurology, and the essentials for passing exams. Although the subject is presented in a deceptively simple, breezy, and personal style, you must not assume that this was done by sacrificing material. The main reason for this approach was to make the subject easier to read, understand, and retain. Therefore, once you know the material in this book, you will be able to read, and quickly understand, more detailed neuroanatomy texts and reference books, should the need arise.

The terminology can throw you for three reasons. First, it is often redundant. For example, a group of nerve fibers may be called a tract, fasciculus, column, lemniscus, funiculus, or bundle—all terms accepted and used by the medical and scientific community. Second, the terminology is full of weird-sounding names of Greek and Latin origins. As for the first, the author obviously cannot at his whim cut out recognized terms, but he can point out those that are synonymous. As for the second problem, a special glossary has been prepared that not only explains the meaning and origin of the names, but also lists a common everyday word derived from them [see Appendix A]. For example, *fornix* is a Latin word meaning an arch and is applied to a curved bundle of nerve fibers. The related everyday word is *fornication*, and the reason for this is that in ancient Rome the prostitutes used to hang around the arches of the aqueducts! Third is the matter of eponyms—that is, structures named after their discoverers. Most of them have been removed, retaining only those few that are widely used in the medical profession. Consequently, you won’t be assaulted by the bands of Von Bungler, the spirals of Perroncito, the comma tract of Schultze, the stria of Lancisi, etc., etc., etc.

It is strongly recommended that you read each chapter before going to each lecture; then, instead of furiously trying to write down every word, you’ll be able to sit back, absorb, and understand the material and leisurely jot down additional notes and drawings. Good luck!

Mike Liebman

It has been more than 12 years since Mike's passing, and he is missed no less than before. The seventh edition of *Liebman's Neuroanatomy Made Easy and Understandable* is the third revision since Mike passed away. Although substantial new material has been added over the course of these later three editions, I've tried to keep his tradition of elegant simplicity with easy reading. Specifics of the additions and new features of the fifth and sixth editions can be found in the preface of each.

For this seventh edition, all chapters and appendixes have been updated where necessary, and the following new material added:

- To Chapter 12 I have added an original figure that summarizes the general plan of the autonomic nervous system (particularly to the head), which is always difficult for students to understand (Figure 12.4).
- To Chapter 13 I have added another original drawing that clarifies and summarizes the origin and destination of fiber types that pass through the ciliary ganglion (Figure 13.10). This information also is usually difficult for students to understand.
- In addition to updating existing factual material in Chapter 23, Pathologic Conditions of the Central Nervous System, I have added a lot of new material.
- Chapter 24 is a new chapter that discusses three neurological entities that have attracted considerable public and professional attention over the past several years: fragile-X syndrome, autism, and attention-deficit/hyperactivity disorder. This chapter gives a concise summary of current concepts concerning pathogenesis, clinical features, and treatment approaches.
- To the self-assessment sections in Appendixes L and M I have added more multiple-choice questions as well as more clinical presentations.

Don't forget to look at all of the appendixes. A lot of very practical information appears in them, including an atlas of the brain (Appendix B); reference values for cerebrospinal fluid and how they change in certain specific diseases (Appendix C); dermatome maps (Appendix D); a list of muscles of the body, their actions, and their innervation (Appendix E); a summary of all cranial nerves, the structures they innervate, and the principal clinical signs associated with each nerve (Appendix F); general functions of regions of the telencephalon and diencephalon (Appendix G); atlases of computed tomography scans and magnetic resonance imaging of the brain (Appendixes H and I); essentials of the neurological examination (Appendix J); self-examination drawing plates to assess your knowledge of brain anatomy (Appendix K); and some interesting and sometimes humorous facts, as well as a list of some of the greatest discoveries in medicine in modern history (Appendix N).

Finally, don't skip over the last appendix (Appendix O), which reviews principles of basic cardiopulmonary resuscitation (CPR) and the initial management of head injury. All students of medical science, no matter what their specific discipline, should know basic CPR. This appendix will serve as a foundation for a practical course in CPR, which students should take as soon as possible if they haven't already done so. For those more heavily involved in patient care, we have included the section on initial management of head injury. All health care deliverers should know this information. If the inclusion of this appendix contributes to saving even one life, it will have been well worth the effort.

Good luck with your studies!

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