

## **Illustrated ECG, A Step by Step Approach to Learn ECG**

Tarek Abdelhamid, MD, David E. Richmond, MD & Stephen Wealthall, MD

First Edition 1998, Medical Education Development Company Ltd.,  
P.O.Box 15-241 New Lynn, Auckland, New Zealand. ISBN 0-473-05483-3

Reviewed by Curtis J. Rosebraugh, MD

**Introduction:** This is the first of I hope many reviews in *Medical Education Online* of books addressing health education. I would like to thank Tarek Abdelhamid, MD for proposing the idea of a book review section and submitting his textbook for review. I have enjoyed getting to know Dr. Abdelhamid and look forward to working with him on future projects. I would also like to thank my friend and former colleague Curtis Rosebraugh, MD for conducting a thoughtful review. Additional information and selected examples from Illustrated ECG, A Step by Step Approach to Learn ECG is available electronically at: <http://www.medical-education.co.nz/index.htm>. I hope you find this review and the new section of the journal useful and welcome your comments and suggestions. David J. Solomon, PhD, Editor, *Medical Education Online*.

There have been many attempts to fill the void that exists in medical education for the definitive ECG textbook. The perfect textbook would be simplistic enough for the novice to understand, while providing enough comprehensive material that the novice could gain the skills to interpret the majority of ECG's that they will encounter in the future. Ideally it would employ a graduated teaching design that would allow novices and more advanced learners alike, opportunities to enhance their skills. This would allow learners with different levels of experience to remain engaged with the text, while not being too over or underwhelmed. A systematic, retainable, approach is essential and key concepts should be illuminated with visual examples. The author that would take on this task has the challenge to write an ECG textbook that would appeal to a wide range of learners with a wide range of abilities. The textbook must also appeal to a wide range of educators that mentor these learners, each of whom have their own unique approaches to teaching and their own expectations. To fulfill all of this is a difficult assignment indeed.

Dr. Abdelhamid's textbook "Illustrated ECG, A Step by Step Approach to Learn ECG" is an

other attempt by a skilled medical educationalist to fill this textbook void. Dr. Abdelhamid's effort is outstanding in several of its sections and is a quick read for an experienced ECG reader. My favorites are his approach to ECG changes associated with Bundle Branch Blocks and the mechanism underlying ST segment changes in ischemia. These sections are clearly written, easy to understand and effectively answer questions that consistently confuses novices. I found his approach to these areas so illuminating that I would consider personally incorporating them into my own teachings.

His early chapters however, suffer from the bane that plagues most ECG textbooks — confusing limb lead graphics and inadequate explanations of how to interpret these graphics. Also, in these sections is a general use of terminology, medical conditions and concepts, that a novice learner may find frustrating. The heart rhythm and rate sections are superficial, unfocused and lack the same systematic approach that is shown in later sections. In the final section, I would like to see the practice ECG's and their answers on separate pages. This would remove the temptation of looking prematurely at the answer. The quality of the print throughout the book is

very primitive and occasionally hard to read.

In summary, Dr. Abdelhamid's textbook resembles others that are currently published. It is brilliant in some sections and but lacks a clear systematic approach with depth and clarity, in others. I would rank his textbook at the same level as those that enjoy popularity now, and would recommend its use as a supplement, but not as the definitive educational ECG textbook. Sadly, the void still exists.

### **A Reply from the Author**

"I learn from those who tell me my positive points, but I learn more from those who tell me about the negative ones."

I would like first to thank all those who shared in reviewing my book Illustrated ECG. The comments were very constructive and useful. I do agree that most of ECG books (including mine) need more detailed information about the electrophysiologic background of the Limb leads. Probably, the authors find it a complicated subject for beginners. I believe there should be some way to simplify its concepts, and I will try to work out a way to achieve this.

I agree also that the first chapters were relatively superficial and shallow compared to those following. One of my challenges in this book was how to start it. Ideally, each chapter should be complete; however, memory studies have shown that too much information can be a hindrance to memorizing data because of an "interference phenomenon" (see Houston, 1991). For this reason, I decided to start the first chapters (which contain the basic concepts of the ECG) with relatively little information, so as to avoid the interference phenomenon as much as possible so the basic ECG concepts become more memorable. In other words, some information was intentionally relocated from the first chapters to other chapters to facilitate the overall process of learning and memory. This may explain why the first chapters appear shallow or superficial compared to the others.

Finally, my challenge now is to write "the ultimate ECG book". It is not an easy job, but it is possible. I am preparing a revised edition and will consider these highly constructive comments to further improve my book.

I am very grateful to all that shared in this review.

Tarek Abdelhamid, M.D.

Houston, J. P. Fundamentals of learning and memory (4th ed.). Florida: Harcourt Brace Jovanovich, 1991.

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