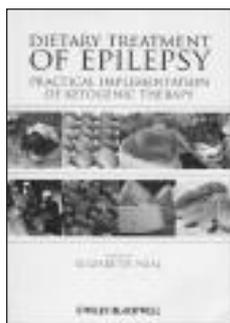


**DIETARY TREATMENT OF EPILEPSY. PRACTICAL IMPLEMENTATION OF KETOGENIC THERAPY.** 2012. Edited by Elizabeth Neal. Published by Wiley-Blackwell. 241 pages. C\$80 approx.

Rated ★★★★★

The ketogenic diet has been used for nearly 100 years in the treatment of epilepsy. However, it has experienced a considerable resurgence in use since the early 1990's. It is now offered as an important therapeutic option in most pediatric epilepsy centers worldwide, and its use in adults with medically intractable epilepsy is rapidly growing. More recent modifications including the modified Atkins diet and Low Glycemic Index diet offer improved tolerability, and appear to have similar efficacy to the classical ketogenic diet.

“Dietary Treatment of Epilepsy: Practical Implementation of Ketogenic Therapy” fills an essential niche both for health care providers, parents and persons with epilepsy, providing a very practical and concise overview of several aspects of dietary therapy for epilepsy. It is edited by Elizabeth Neal, a dietician and author on the first randomized controlled study of the ketogenic diet for treatment of epilepsy, who is well-recognized internationally for her expertise in ketogenic diet therapy. The chapters are written by a panel of international physician and dietician experts. This book is subdivided into three sections: (a) Introduction and Overview, (b) Clinical Implementation and (c) Broader Applications.



The Introduction and Overview section provides a brief overview of epilepsy and its treatment options, placing the ketogenic diet in context with other options for managing refractory seizures including further antiepileptic drug trials, surgery and vagal nerve stimulation. Additionally, chapters by Drs. Kossoff, Hartman and Rho succinctly summarize the most up-to-date studies on ketogenic diet efficacy (including data on the use of the modified Atkins and Low Glycemic Index variants) and postulated mechanisms of action, highlighting that ketosis alone is not the only mechanism of action.

The Clinical Implementation section addresses essential clinical issues, including factors and challenges which should be evaluated prior to dietary initiation. Chapters focused on each specific type of ketogenic diet (classical, medium-chain triglyceride, modified Atkins and Low Glycemic Index) are authored by a group of dietician experts, and provide very practical guidance on the composition of these diets, calculation of protein and calorie needs, implementation and fine-tuning of these diets to maximize seizure control. Issues of vitamin and mineral supplementation and how to deal with “sick-days” are also covered. Potential adverse effects and recommendations for monitoring are addressed. This section also includes a well-written chapter by Emma Williams, the founder of Matthew’s Friends, and a very experienced “keto-parent”, who provides invaluable guidance for families living day-to-day with the ketogenic diet.

The final section “Broader Applications” includes chapters on the use of the ketogenic diet in both young infants as well as

adults, highlighting the special challenges and therapeutic recommendations in these age groups. The final two chapters review specific uses of the diet in metabolic disorders (specifically GLUT1 transporter deficiency and pyruvate dehydrogenase deficiency) and in other neurological conditions including Alzheimer’s, cerebral trauma, Parkinson’s and cancer.

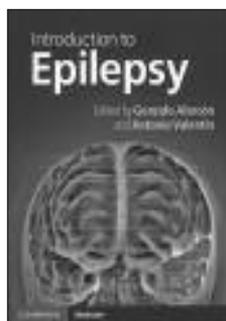
In summary, this book fills a much-needed niche by providing a concise overview of many aspects of ketogenic diet therapy, and would be an excellent resource to pediatricians, general neurologists, nurses, pharmacists and dieticians who provide care to children and adults on dietary therapy for epilepsy. Given its easy readability, and concise review of the literature on efficacy and mechanisms of action, it will also provide invaluable information to parents, caregivers and ketogenic diet patients.

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**INTRODUCTION TO EPILEPSY.** 2012. Edited by Gonzalo Alarcón, Antonio Valentín. Published by Cambridge University Press. 605 pages. C\$90 approx.

Rated ★★★★★

The book “Introduction to Epilepsy” is the first edition by Gonzalo Alarcón and Antonio Valentín. This book is a useful study source for medical students, residents or graduates of neurology and neurosurgery, as well as epilepsy fellows. It is also a valuable concise review for board examinations that covers seizure types, epilepsy syndromes, main electroencephalography (EEG) abnormalities, advanced methods of seizure localization such as magnetic electroencephalography, various imaging modalities, and current medical and surgical epilepsy treatment options.



This book has a user-friendly format. It consists of multiple brief chapters each covering an important topic on epilepsy basics or clinical aspects in a concise manner. The book begins with basic epilepsy principles, followed by classification and diagnosis of epilepsy. The following chapters focus on epidemiology and genetics of epilepsy, and its medical and surgical management. Finally, epilepsy in specific circumstances as well as psychiatric, social and legal aspects of epilepsy are discussed.

The book contains five major elements. First, the text is clear and includes bullet points, highlighting the most important elements. Second, text boxes that clearly demonstrate epilepsy related classifications and indications of certain investigations or treatments. Third, tables, which contain useful comparisons. Fourth, electroencephalogram traces that represent normal variants, artifacts or abnormalities discussed in the text. Fifth,

figures of radiological imaging and pathological specimens, which properly add a visual dimension to the described diseases in the text.

The readers will learn more effectively about epilepsy, if they read an entire section of this book at a time. Each "section" resembles a puzzle composed of smaller "chapter" pieces. Therefore, the reader will see the big picture by putting the pieces together after reading all chapters of the section. In addition, more advanced readers such as epilepsy fellows are recommended to read this book along with a specialized EEG atlas or textbook. Although there are good EEG examples in this book, EEG is not the focus of the book. Thus, having more variety of EEG examples will deepen the understanding of the topic.

A suggestion to improve the future editions is to increase the resolution of some of the EEG tracings, color printing of advanced imaging modalities, and adding color to tables and schematic figures.

In summary, this introductory book to epilepsy has a user-friendly text, which covers both basic and clinical aspects of epilepsy diagnosis and treatment. It is also accompanied with useful EEG traces, and pathological and radiological illustrations. At a reasonable price, this book is a useful resource for medical students, residents or graduates of neurology and neurosurgery and epilepsy fellows for board review purposes.

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**THE EVIDENCE FOR NEUROSURGERY.** 2012. Edited by Zohar Ghogawala, Ajit A. Krishnaney, Michael P. Steinmetz, H. Hunt Batjer, Edward C. Benzel. Published by tfm Publishing Limited. 484 pages. C\$150 approx.

Rated ★★★★★

"Evidence for Neurosurgery" is a foray into the challenge of providing a systematic approach to common neurosurgical disorder in the face of substantial clinical variability. It is hard to qualify this text as anything other than "gripping" and "a page turner" as Ghogawala and his team have assembled an all-star group of neurosurgeons to guide us mortals through complex and voluminous evidence. While we are all familiar with the landmark studies guiding contemporary neurosurgical practice, this text highlights that work but also identifies those gaps that are often filled with dogma and judges whatever evidence is accessible to fill them. Some of this work will serve to change our practice patterns, and some of it will serve us to better inform our patients about outcome expectations; not a page of it is wasted space.

The book begins by reviewing the types of clinical evidence and effectively explaining how various specifics of surgical

intervention preclude or affect the potential for rigorous experimental evaluation. Instead, within neurosurgery, we draw much evidence from work ostensibly lesser than randomized controlled trials, but the value of those sources of evidence must not be discounted. The topics have been divided by neurosurgical subspecialty, with each chapter organized well and effectively written. Therein, the evidence for a selected set of key points about a topic is summarized concisely but with enough information for the reader to determine its utility, and the chapters are closed with summary evidence statements for quick reference. Key studies are tabulated with outcomes of interest to provide the reader with an opportunity to see the data breadth and variability, and when appropriate, figures and diagrams are informative.

Without doubt, academic surgeons will already be familiar with their respective subspecialties, knowledgeable and often contributing to the primary data guiding their practice. Conversely, this book is ideally suited for trainees and junior faculty at the outset of their career, and also for more advanced faculty seeking to remain up-to-date about adjuvant care and novel techniques to manage their patients. Being well-referenced, it is an easy launching point for the reader to learn more about the contributing studies. Disappointing is the lack of an organized index, as one must each time wade through a broad table of contents to find a specific topic of interest.

It is a steal at the current price. Were it double, I would still support it. The drawback of this style of text is the commitment that the editor and authors face to providing periodic updates as new evidence manifests, as the information contained therein is time-sensitive and will become dated. I hope that they rise to the task and I already look forward to the next edition!

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