



The Internet Journal of Allied Health Sciences and Practice

<http://ijahsp.nova.edu>

A Peer Reviewed Publication of the College of Allied Health & Nursing at Nova Southeastern University

Dedicated to allied health professional practice and education

<http://ijahsp.nova.edu> Vol. 9 No. 1 ISSN 1540-580X

Review of: The Therapeutic Electrophysical Agents: Evidence Behind Practice, 2nd Edition

Author: Be'lander, A.Y.

Lippincott Wilkins & Wilkins; 2010, Baltimore, Maryland; 2010. (504 Pages; Price \$67.65

Reviewed By

Cindy LaPorte, PhD.

Alabama State University

United States

CITATION: LaPorte, C. Review of: The Therapeutic Electrophysical Agents: Evidence Behind Practice, 2nd Edition by Be'Lander, AY. The Internet Journal of Allied Health Sciences and Practice. Jan 2011, Volume 9 Number 1.

OVERVIEW

Therapeutic Electrophysical Agents: Evidence Behind Practice, provides an organized approach to presenting 18 therapeutic electrophysical agents. As the author states in the first chapter, "therapeutic electrophysical agents are widespread in the fields of physical rehabilitation, physical medicine, and sports therapy." This text would be appropriate for students and clinicians in any of these professions. Be'lander is the lone author of the book which has been reviewed by 6 reviewers. All of the reviewers are physical therapists except one who is a chiropractor. The book contains 27 chapters organized in three sections. Appendices for metric and US units of measure equivalence and temperature equivalency are also included. The text provides supporting evidence in each chapter and 24 cases are presented in Section II. Figures, tables, and boxes support the narrative in each chapter. They are concise and well organized throughout the entire book. The book is supported by available full online text. Resources for instructors are also available including an image bank and test generator.

ORGANIZATION

The book is divided into 3 sections: Foundations, Electrophysical Agents, and Practical Clinical Guidelines.

Section I is new to this edition and consists of five chapters which provide a foundation for the electrophysical agents presented in Section II. Topics covered in the five foundational chapters include therapeutic electrophysical agents in healthcare, soft-tissue pathology and the healing process, pain following soft-tissue pathology, therapeutic spectrum of electrophysical agents, and illustrated glossary of electrophysical terminology. The figures, tables, and boxes in these chapters provide valuable supportive information. Table 1-1 provides an overview of the agents presented in chapters 6-23 in respect to therapy, energy spectrum and agent. The figures in chapter 2 provide a visual review of the structural hierarch of skin, tendon, ligament, articular cartilage, bone, muscle, nerve, vein, and artery. The pathology for these structures is presented in tables organized by type, cause, severity, and description.

Section II contains 18 chapters each devoted to a specific electrophysical agent. The 18 agents presented in this section are hot pack and paraffin bath therapy, fluidotherapy, cryotherapy, hydrotherapy, short-wave diathermy therapy, low-level laser therapy, ultraviolet therapy, iontophoresis therapy, transcutaneous electrical nerve stimulation therapy, microcurrent therapy, high-voltage pulsed current therapy, Russian current therapy, interferential current therapy, diadynamic current therapy, ultrasound therapy, spinal traction therapy, intermittent pneumatic compression therapy, and continuous passive motion therapy. Each chapter is presented in an organized and practical manner. The organization of these chapters includes rationale for use, historical perspective, biophysical characteristics, physiological effects, and therapeutic effects. The structure also provides an orderly

presentation of dosimetry, evidence for indications, contraindications, risks, precautions, and recommendations, considerations for applications and documentation. Case studies are included in each of the chapters.

Section III contains four chapters that provide practical guidelines. These guidelines include purchase of therapeutic electrophysical agents, skin and electrophysical agent temperature measurement, electrical shocks, safety measures and maintenance of line-powered devices. These chapters are short but provide very practical information.

TABLES AND FIGURES

The figures in each of these chapters provide good depictions of the specific modalities. The boxes are consistent in each of these chapters and provide concise information on physiological effects, applications, research, and advantages/disadvantages. Tables provided in these chapters are uniformly organized with information on contraindications, precautions and treatment parameters.

SUMMARY

The textbook is closely aligned with physical therapy as evidenced by the profession of the author and five of the six reviewers who are physical therapists. The textbook is also based on Nagi's model and terminology that is consistent with the *Guide to Physical Therapy Practice*. With that said, this book provides the organization, information, and evidence that make it a practical choice for an electrophysical agents curriculum in any allied health program. Having one author organizing the book instead of separate authors for each chapter provides for cohesion throughout the book. The organization is demonstrated by the standardization of the boxes and tables in chapters 6-23. The book flows as a whole instead of with piecemeal chapters written by different authors and the depth of the many references between chapters provides for overall integration of the material.