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PATHOLOGY

Implications for the Physical Therapist

*Catherine Cavallaro Goodman
Kenda S. Fuller*

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Dedicated to the wonderful staff members at Elsevier Science.

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CCG

To my many patients who rise above the effects of neurological dysfunction. You have been my inspiration to learn, and you have taught me so much about how to live my life.

KSF

FOREWORD

Being a physical therapist has two special joys. One is seeing the progress that our patients make each day in our care. Another is the satisfaction found in knowing and growing with our colleagues. This text epitomizes both of these joys for me.

Pathology: Implications for the Physical Therapist represents an important contribution to the quality of care that we provide to our patients. Knowledge of the pathology of disease has always stood as one of the fundamental prerequisites to safe and effective health care practice. By understanding principles of pathology, we can put names to the problems we find in our patients. These names, or diagnoses, allow us to then classify our patients to lead to effective interventions with maximum outcome.

With the development and application of disablement models, physical therapists, along with others, have been able to place pathology in its appropriate context. Rather than seeing pathology as the primary, and perhaps single, basis for understanding and naming illness, a disablement model places pathology as the initiation of a cascade of effects that can interfere with optimal function by leading to impairments, activity limitations, and disability. Physical therapists recognize that we also name these impairments and activity limitations in diagnosing and classifying our patients.

Catherine Goodman and Kenda Puller set their presentation of pathology in this context. This text not only provides the basis for our conversations with other health care practitioners about our patients, but it also frames that conversation in the clinical decisions that we, as physical therapists, make about and with our patients. We must understand pathology and the changes it induces in our patients, and then we must use this knowledge to help us make accurate diagnoses that lead to accurate prognoses about the ability of our patients to benefit from our interventions. The format of this text, with its grounding in a disablement model, its presentation of pathology, the addition of the medical and surgical management of patients with specific pathology, and, finally, special implications for physical therapists, provides students and clinicians alike with the basis for our clinical decisions. In addition, the authors provide extensive text

and journal references so that readers can seek the evidence that supports the authors' contentions.

The authors' concern about the quality of our care is imbued throughout the text. Because of this concern, the authors' attention to detail, and the application of a disablement model, the text offers us an important and useful tool to improve our patient care. It can be used successfully by students, faculty, and clinicians as a reference for patient care, helping them to experience the true joy of providing the best possible physical therapy care to their patients.

This text has also given me the opportunity to experience the second joy to be found in our field. Physical therapy continues to grow and expand, but it remains a closely knit group, offering many opportunities for development of a true community, with all of the interrelationships found in a community of colleagues.

I have had the great pleasure to meet and interact with almost all of the authors and reviewers of this text. They continually impress me with their professional expertise and their dedication to improving physical therapy. But I take special pride in my professional relationship with Catherine Cavallaro Goodman. I first met Cat many years ago when she was a student and I was a teacher and her advisor in the physical therapy program at the University of Pennsylvania. In the intervening years, we have each taken a different path. How wonderful it is to have these paths occasionally intertwine, to be able to point with pride and joy to her many contributions to our field, and to see the excitement, enthusiasm, and expertise she brings to her writing and teaching.

Physical therapy is truly a source of joy and excitement for those of us blessed to be part of this profession. *Pathology: Implications for the Physical Therapist* offers us one more opportunity to strengthen the quality of the care we provide our patients. I am confident that readers will agree with me that this is indeed cause for celebration. May they all enjoy the contribution of this text to our profession!

Laurita M. Hack, DPT, MBA, PhD, TAFIA

PREFACE

The community of physical and occupational therapists has responded to this text in an overwhelmingly positive way. Although many health care professionals from a variety of backgrounds will find this an appropriate text for study and reference, whenever possible, the terminology and concepts of the *Guide to Physical Therapist Practice* (referred to as the *Guide*), developed by the American Physical Therapy Association (APTA), have been integrated into this third edition.

The *Guide* was developed as an expert consensus document by panels of clinicians and then reviewed by over 1000 therapists across the country. Three conceptual models are integrated throughout the *Guide*: the (Nagi) Disablement Model, the Integration of Prevention and Wellness Strategies, and the Patient/Client Management Model.

The Disablement Model extends the scope of the medical model of disease with its primary emphasis on diagnosis and treatment of disease by placing the focus on the functional consequences of disease. Both the medical model and the Disablement Model are reflected in this text. Diagnosis and treatment of disease in this text are presented following the medical model along with the Disablement Model's assessment of the impact of acute and chronic conditions on the functioning of specific body systems (impairments) and basic human performance (functional limitations).

Thus the reader will see terminology reflective of these two models, such as "etiology," "pathogenesis," "diagnosis," and "prognosis" from the traditional medical model and "impairments," "interventions," "desired outcomes," and "functional limitations" from the Disablement Model.

Discussion of the World Health Organization's International Classification of Functioning, Disability, and Health (ICF) is also included in this edition of the *Pathology* text. This model, with its framework to classify and code information about health, provides standardized language that includes the level of participation in desired activities as a criterion in establishing the status of an

individual and as a way to determine goals. The ICF is now considered an international standard to describe and measure health and disability from a biopsychosocial perspective by all health care professionals. The ICF is a good framework for research from a global perspective.

The *Guide* includes a section of specific groups referred to as Preferred Practice Patterns that represent the major body systems and are designed to facilitate a systems approach to patient/client management. The Preferred Practice Patterns are described in four sections: musculoskeletal, neuromuscular, cardiovascular/pulmonary, and integumentary. We were unable to place all diseases included just within these four categories. Rather, this text continues to follow a medical model in its presentation of diseases because the therapist will encounter multiple medical co-morbidities that extend beyond the four categories of Preferred Practice Patterns outlined in the *Guide*.

Although therapists do not usually devise intervention strategies for primary systemic conditions, they must be aware of the impact that such diseases may have on the rehabilitation process. Therapists play an important role in disease prevention and health promotion, so whenever possible, risk factor reduction and prevention strategies are a part of the discussion surrounding each disease.

In addition to integrating information from the APTA's *Guide* and updating scientific and medical information, this third edition continues to offer details about the clinical impact of diseases and "dis-eased" body systems on clinical interventions. Whenever possible, a special section on the role of exercise and each condition or pathology is included to reflect the current understanding of the importance of exercise as a primary intervention for many diseases. The key strength of this text continues to be the Special Implications for the Therapist, whether the therapist is a student with that first client or a seasoned clinician of many years.

Catherine Cavallaro Goodman

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We wrote the first edition of this text without the benefit of e-mail and only Internet access to the National Library of Medicine. We were naive in the undertaking! Now that we know better and are armed with the benefits of electronic communication, there are many people who deserve our thanks and praise.

First, to the reviewers who gave their time and expertise without financial reward—your names are in lights on the Reviewers page! Each one of these individuals took the time and effort to carefully review specific chapters or sections within a chapter to make sure everything was up to date and/or to offer insight from their own years of clinical practice in specialty areas. Special thanks to the physical therapy community across the United States and those closer to home in our own communities for their ongoing support of this project.

We offer thanks to those people and organizations who shared their power point slides, handouts, notes, abstracts, poster presentations, and other resources with us—and to all who contributed to the formation of the *Guide to the Physical Therapist Practice*.

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*Catherine Cavallaro Goodman
Kenda S. Fuller*

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