

*TEXTBOOK OF  
ORAL  
MEDICINE*

# *TEXTBOOK OF ORAL MEDICINE*

*SECOND EDITION*

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**JAYPEE BROTHERS**

**MEDICAL PUBLISHERS (P) LTD**

New Delhi

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*Published by*

Jitendar P Vij

**Jaypee Brothers Medical Publishers (P) Ltd**

EMCA House, 23/23B Ansari Road, Daryaganj

**New Delhi** 110 002, India

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***Textbook of Oral Medicine***

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*First Edition:* 1998

*Second Edition:* **2005**

ISBN 81-8061-562-6

*Typeset at* JPBMP typesetting unit

*Printed at*

*To  
My Students,  
Past, Present and Future*

# Foreword

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India has over 100 dental colleges which graduate 5,000 dentists every year, not to speak of specialists in dental disciplines. These numbers are bound to grow in the face of ever-increasing demand from our population which will cross the billion mark by the turn of the century. The pressure for expansion will strain the resources of dental education which would be obliged to expand without detriment to quality. The publication of textbooks by Indian authors in India is an essential component of a strategy to meet the twin challenges. It not only spares the student from buying high-priced and over-priced books from abroad but also promotes the writing of textbooks for which abundant talents in terms of authorship and publishing exist in India.

Dr Pramod John has made excellent use of his clinical and teaching experience in the Department of Oral Medicine and Radiology to write the *Textbook of Oral Medicine* which seeks to answer the requirements of the syllabi of various Indian universities as well as those universities abroad. In the comprehensive textbook style, the book covers the clinical examination, pathology, investigation and therapy of oral diseases and the oral manifestations of systemic diseases. The author needs to be complimented on making a special effort to address the examination needs of the undergraduates and postgraduates who, I hope, will welcome this publication.

**MS Valiathan**

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*Formerly, Director, Sri Chitra Institute of Medical Sciences and Research,  
Trivandrum and Vice-Chancellor, Manipal Academy of Higher Education  
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# Foreword

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The growth of biomedical research has seen extraordinary advances in the health and well-being of people. The connection between the oral cavity and “medicine,” has always been the domain of the physician. The writings of Plato and Hippocrates document that the physicians were well aware that the mouth and oral tissues were the barometer of a person’s well-being (health). The story is particularly remarkable in the case of oral health and we need to go from a nation plagued by the pains of toothache and tooth loss to a nation where most people can smile heartily that reflects their overall health in general and oral health in particular.

Today, armed with the high-powered tools, automated equipment, and imaging techniques as well as advances in genetics and molecular and cell biology, scientists have set their sights on resolving the full array of craniofacial diseases and disorders, from common birth defects such as cleft lip and palate to the debilitating, chronic oral-facial pain conditions and oral cancers that occur later in life.

Although the knowledge of *Oral Medicine* has grown, the goal of Oral Health has not changed—the impetus for change—to take on the challenge of addressing oral diseases, for which a sound understanding of oral health issues is required. The practicing dentist must be aware of the pathological changes in the mouth that may be attributed to the local pathological changes as well as oral manifestations of systemic diseases.

Despite the advances in oral health that have been made over the last half-century, there is still much work to be done. The *Textbook of Oral Medicine* now fills over 400 pages and covers 38 chapters on Oral Medicine.

This book provides an authoritative and comprehensive coverage of the practice of Oral Medicine and the provision of dental care to patients with medical problems. Each chapter contains a number of tables and figures, together with an extensive list of contemporary references. The text is well written throughout and any member of the dental healthcare team will find this book a source of useful information. The depth of material and excellent cited literature provide both undergraduate and postgraduate students with a wealth of knowledge not only on diagnosis but also on key aspects of clinical management.

The text continues to cover all the contents expected in the *Textbook of Oral Medicine* as well as detailed information on orofacial pathologies.

The more specialised the practice of Oral Medicine becomes, the more important and relevant such information turns out to be. This book serves to satisfy and support all efforts to nurture the ‘inquiring mind’ and comprehensively informs on recent trends in Oral Medicine. The *Textbook of Oral Medicine* quickly provides information that helps practitioners to provide optimal oral health care.

## x Textbook of Oral Medicine

Even though books on Oral Medicine written by Dr Pramod John are being followed in various universities in India, this edition of *Textbook of Oral Medicine* has taken into consideration the syllabus of other international universities and is the culmination of an arduous but rewarding expertise of Dr Pramod John in the field of academics and clinical research. Every chapter has been carefully worded for ease of better understanding with complete new sets of dental illustrations and high quality photographs. This book is sure to bridge the gap between medicine and dentistry. The author deserves appreciation which may not be possible to adequately express here, but I know this will feel sufficiently rewarded if his efforts serve your needs.

I congratulate Dr Pramod John for this monumental work and hope this edition of *Textbook of Oral Medicine* will serve as an aid to you, compatible with your needs and worthy of frequent use.

**Dr Prem Nair**

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Amrita Institute of Medical Sciences and Research Centre

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Kochi, Kerala



# Acknowledgements

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Though the writing part, typing, editing, proofreading and reviewing have been done by myself single-handedly, I would like to thank the students and teaching faculty from various institutions in the country for having encouraged me to make my effort of writing this book, indeed a reality and a fruitful task.

My parents deserve my acknowledgement for offering me all the encouragement in pursuing my career as a teacher and also for genuinely being happy at my humble achievements.

I am greatly indebted to my teachers who moulded my career as well as encouraged me to take up teaching dentistry as a profession. Among my teachers, I thankfully acknowledge Dr MK Manjunath who apart from teaching me Conservative Dentistry and Endodontics also taught me and guided me all through my student-days and subsequently. He stands apart in my life as a teacher par excellence and a wonderful human being. The other teachers who have influenced me tremendously are Dr MR Vijay Raghavan, Dr Shobha Tandon, Dr Dilip R Gadevar, Dr GS Kumar and Dr Shyam Singh.

I would like to thank Mr Ramesh B of the Computer Section of the Kasturba Medical College, Manipal for providing technical assistance for the First Edition of my book.

Shri Jitendar P Vij, Chairman and Managing Director of Jaypee Brothers Medical Publishers (P) Ltd. deserves my special mention here for providing all encouragement and also for being receptive in accepting my suggestions.

Mr Tarun Duneja, General Manager (Publishing) of Jaypee Brothers Medical Publishers (P) Ltd. deserves my appreciation for the valuable suggestions regarding the formatting and presentation of the material in my book.

Mr PG Bandhu, Director (Sales) of Jaypee Brothers Medical Publishers (P) Ltd. deserves my special mention for doing his work so efficiently and untiringly.

Mr PS Ghuman, Senior Production Manager of Jaypee Brothers Medical Publishers (P) Ltd. deserves special mention for bringing out this book in an excellent form.

I greatly acknowledge the encouragement of my students, who were my inspiration. My students of past and present have special position in my heart.

I also thankfully acknowledge my friends who have supported and encouraged me. I would like to thank Dr MS Valiathan and Dr Prem Nair for writing appropriate foreword.

I am greatly indebted to my alma mater, the College of Dental Surgery, a constituent college of Manipal Academy of Higher Education (A Deemed University), where I also served as a teaching faculty for a pretty long time, for helping me reach where I am at a professional level.

I am also indebted to Mahatma Gandhi Govt. Dental College and Hospital, Pondicherry, where I served as Professor and HOD and it was a very satisfying experience to work with several wonderful people.

I am also grateful to my present institution, Amrita School of Dentistry, a constituent college of Amrita Vishwa Vidyapeeth (A Deemed University), Cochin.

I would like to thank the artist and all those who were involved in the task of printing, publishing, distributing, marketing and promoting this book.

*“To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all.”*

—Sir William Osler (1849–1919)

# *Preface to the Second Edition*

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We are living in an era of information explosion. There is always a need to bring about changes in a textbook so as to make it up-to-date and of use to the reader. I was greatly encouraged by the warm reception offered to the first edition of my book by the dental students as well as by the teaching fraternity. This was the motivating factor in converting my previous edition of *Essentials of Oral Medicine* into a textbook, titled, *Textbook of Oral Medicine*. The contents of the book have been rewritten so as to add necessary information. The formatting and the style of the book have also been changed. Yet another feature of the book the readers would welcome is the presentation of the matter in a pointwise manner so that it would be easy for the students to read and grasp the subject matter while preparing for examination. I have also added more diagrams to make the text matter more appealing. Yet another welcome change the readers would appreciate would be the addition of colour photographs. Also, I have added Self-Assessment Test at the end of each chapter so that the students can recollect whatever they have studied. I would like to invite suggestions, constructive criticisms, comments and feedback about the book from the readers.

**Pramod John R**



# *Preface to the First Edition*

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Oral Medicine is a vast subject as it encompasses different spheres of dental and medical sciences. It is my personal feeling that this subject bridges the gap between medical science and dentistry. A comprehensive and successful dental treatment planning depends greatly on the awareness of general medical status of the patient as well as on the sound knowledge of various diseases either locally present or having a systemic background. A thorough knowledge of normal oral structures, normal variations, and pathologic changes is essential in the day-to-day practice.

I felt a compelling desire to write this book based on the fact that there is no book available in India which suits the requirements of the syllabi of various Indian universities. Although many imported books are available in the Indian market, no single book sufficiently covers the various topics envisaged in the syllabi. Most of the imported books available in the Indian market are too expensive and an average Indian student cannot afford to buy all these books. Yet another strong reason was, it is not possible to go through all the books in the limited time during the course of hectic preparation for examination. I have tried to include all the topics covered in the syllabi of various Indian universities so that this book may be used by each and every student. It is my strong feeling that this book will be useful for the undergraduate and postgraduate students as well as for the general dental practitioners and physicians who have an interest in the diseases of the oral cavity.

I would like to request all the readers to offer constructive criticisms and suggestions, if any, in modifying the contents.

**Pramod John R**



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