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Review of: Mosby's Dental Hygiene: Concepts, Cases, and Competencies Textbook, Second Edition

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Reviewed by Harold A. Henson, RDH, MEd, assistant professor, Department of Periodontics, School of Dental Hygiene, The University of Texas Dental Branch at Houston.

Mosby's Dental Hygiene: Concepts, Cases, and Competencies Textbook, Second Edition

Daniel SJ, Harfst SA, Wilder R

Mosby

Philadelphia, PA, 2008

1040 pages, 795 illustrations, textbook, hardcover

ISBN: 0-32304-352-6

\$84.95

Mosby's Dental Hygiene: Concepts, Cases, and Competencies is a comprehensive textbook for dental hygiene students and clinical practitioners. The second edition provides a contemporary view on dental hygiene theory practice. There are new chapters on: evidence-based decision making, inflammation and the immune response, esthetics, orthodontics, oral malodor, HIV and AIDS, and practice management. This is a learner-centered textbook and it engages a variety of learning styles through the use of the interactive CD-ROM and Clinical Companion Study Guide.

The CD-ROM contains a myriad of learning activities. There are patient-based exercises divided into a variety of navigation panels such as: patient profile, health history, prevention survey, intraoral photographs, radiographs, intraoral and extraoral exam forms, periodontal chart, dental charting, and a 24-hour food diary. A unique option in the CD-ROM is the ability for the learner to create an electronic portfolio. It contains subject items such as a philosophy of practice, needs assessment, career goals, and evaluating career paths. This feature provides the learner a wonderful professional development roadmap. In addition, this portfolio can be saved and e-mailed to the faculty member for assessment and review. There are embedded video clips within the CD-ROM that cover such topics as: instrument sharpening, pain and anxiety control, periodontal probing, and powered instrumentation. One note on the CD-ROM is that it lacks a full screen icon in the upper right hand corner. One way to remedy this is to drag the borders to the screen length in order to read the information.

There are also 2 supplemental textbooks titled the *Clinical Companion Study Guide* and the *Instructor's Resource Manual*. The *Clinical Companion Study Guide* contains critical thinking activities, process performance forms, and review questions with answers and rationales. The companion guide engages the learner with key questions:

- WHY do I need to know about ____ (this particular area)?
- WHAT will I be able to do with this knowledge?
- HOW do I prepare myself to transfer this knowledge to patient care?

- HOW do I perform these skills?
- HOW can I more effectively use this knowledge?

These questions stimulate the processes of: critical thinking, self assessment, and reflective practice. The *Instructor's Resource Manual* ties in the textbook, CD-ROM, clinical companion guide, and website into an integrated teaching tool. The instructor's manual refers back to the learning outcomes for the respective textbook chapters. There are number of teaching strategies on how to convey the topic to the students. This is an excellent component to assist faculty in thinking "out of the box."

The *Evolve* website contains a plethora of resources for faculty and students. There are 2 valuable features that will enhance teaching. One is the *Electronic Image Collection* and the second is the *Test Bank*. The *Test Bank* contains over 500 questions. There are also instructions on creating quizzes and examinations. This is a helpful feature for both new and seasoned faculty. Students will enhance their learning using critical thinking activity worksheets, patient education handouts, and additional website references, readings, and resources.

Combining the Textbook, Instructor's Resource Manual, Clinical Companion Study Guide, and the Evolve website creates a true comprehensive learning package. When all 4 of these components are combined it creates a learner-centered environment that emphasizes the core principles of case-based and competency-based education.

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Review of: Textbook and Color Atlas of Traumatic Injuries to the Teeth, Fourth Edition

Mary Danusis Cooper, LDH, MSED

Reviewed by Mary Danusis Cooper, LDH, MSED, professor, Indiana University-Purdue University Fort Wayne, Ind.

Textbook and Color Atlas of Traumatic Injuries to the Teeth, Fourth Edition

Edited by Andreason J, Andreasen F, and Andersson L

Wiley-Blackwell

Oxford, UK, 2007

912 pages, illustrations, indexed

ISBN: 1-40512-954-1

\$299.00.

It has been more than 30 years since the first publication of this textbook. Since then, the acute treatment of dental injuries has evolved immensely. The practice to extract traumatized teeth or reposition them into an anatomically correct position is being reconsidered. Great strides have been made in the treatment of such injuries, in addition to the importance of optimal healing. Therefore, the emphasis of this new edition has been on understanding the nature of trauma, its healing aspect, as well as the importance of treatment interventions during healing.

This text has 35 complete chapters, each illustrated with wonderful color photos and drawings. Some chapters concentrate on specific dental traumas, such as root fractures. In each of these chapters, specific treatment modalities are addressed to optimize the healing process. The editors have made it a point to focus on the nature of trauma and healing events, emphasizing how critical healing is for complete recovery. At the end of each chapter, thorough and complete references are listed supporting the content with clinical and experimental research.

In addition, chapters have been added since the last publication of this text 10 years ago. It was important for the editors to address the impact a traumatic event can have on the mental health of a patient. Not only can a traumatic event psychologically affect a patient but it can also cause esthetic problems. As a result, another new chapter was written to focus on the esthetic rehabilitation of the traumatized patient.

Statistics from most countries document that 33% of all preschool children have suffered from dental trauma involving the deciduous dentition, while approximately 25% have suffered dental trauma to the permanent dentition. These statistics prove that the dental team will more than likely have patients who will experience dental traumas in their practice. Although dental specialties such as endodontists, oral surgeons, and pediatric dentists would benefit most from the information provided in the text since they will more than likely deal with such emergencies, this text would still benefit general practitioners who may also deal with such traumas. Overall, this textbook provides valuable information and should be available as a resource for all dental offices and dental schools.

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Review of: Oral-Based Diagnostics (Annals of the New York Academy of Sciences)

Margaret J Fehrenbach, RDH, MS

Reviewed by Margaret J. Fehrenbach, RDH, MS, dental hygiene education consultant and technical writer, Seattle, Wash. For more information about the work she does, please visit her website at www.dhed.net.

Oral-Based Diagnostics (Annals of the New York Academy of Sciences)

Edited by Malamud D and Niedbala RS

Wiley-Blackwell, 2007

352 pages, illustrated, indexed

ISBN: 1-57331-661-X

\$125.00

Science dealing with salivary diagnostics has now moved on to the wider base of oral-based diagnostics, as this collection of recent presentations indicates from a national conference on the subject by the New York Academy of Sciences. What was once a "Salivation Army" of a few, now has many "members" interested in its use.

Oral-based diagnostics have the potential to detect systemic disease and evidence of exposure to various harmful substances, as well as provide biomarkers of health and disease status. Integration of novel approaches to oral-based diagnostics is expanding to include genomics, proteomics, bioinformatics, and nanotechnology. Improved technologies for diagnostics are resulting in more user-friendly methods.

Efforts to translate bench assays to commercial products in the area of oral diagnostics have increased recently as witnessed by the appearance of several new oral-based diagnostic products in the market place. Noninvasive diagnostic methods have a great appeal to our patients. Use of salivary methods reduce the transmission of infectious disease by eliminating the potential for accidental needlestick, and are economical. One of the papers discusses the home drug testing sales found on the Internet. Through this overwhelming surge of interest and products, ethical, legal and, social implications come to the forefront as discussed by one of the contributors.

Not only do these methods look toward diagnosis of disease but also the other benefits of salivary analysis, including drug usage, as salivary analysis reflects many drugs' unbound fraction in plasma. This is an important area of discovery with meth abuse. Discussion of detection of oral cancer by analysis in genetic changes in the cellular compartment is also included since late diagnosis of oral cancer is such an overwhelming problem. These would not replace conventional methods but enhance them, especially in high-risk populations.

Studies are now also being done to correlate tests done for cardiovascular disease and salivary components in their relationship to periodontal disease. Particularly exciting for dental hygiene clinicians is lab-on-a-chip (LOC) methods for point-of-care measurements (POC) for periodontitis, which would use biomarkers. There has been an increased push by

NIDCR and WHO for these methods especially due to the relationship of this oral disease to systemic diseases. It does not appear that a single stand-alone marker will be sufficient for this complex host disease.

This collection would be particularly useful as a current reference for all dental hygiene programs that want to keep informed about the latest technology in our field. Clinicians will enjoy increasing their information in this area as it undergoes enormous changes in the next few years. It is wonderful to have this complete guide to oral-based diagnostics available in one easy-to-read and understand source.

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Review of: Minimally Invasive Dentistry: The Management of Caries

Celeste M Abraham, DDS, MS

Reviewed by Celeste M. Abraham, DDS, MS, clinical assistant professor, Baylor College of Dentistry, Dallas, Tex.

Minimally Invasive Dentistry: The Management of Caries

Edited by Wilson NHF

Quintessence Publishing Company United Kingdom

Year published: 2007

168 pages, color illustrations, hardcover

ISBN: 978-1-85097-105-4

\$98.00

Minimally Invasive Dentistry: The Management of Caries is a first-rate dental text, which opens the eyes of the reader to a wide selection of dental restorative materials and techniques that are used in the contemporary setting. Published in 2007, this tightly condensed 12 chapter resource is a revelation to the general dentist that there is more than one way to find a cavity, restore a cavity (without having to destroy too much tooth structure), and prevent a cavity from beginning in the first place.

The editor carefully focused the reader's thoughts on the importance of going beyond the usual procedures employed in operative dentistry. He compiled an assortment of cutting-edge techniques which he urges to follow, and which compel the engaged reader to investigate further. The plethora of current references at the end of each chapter allows one to do just that. Topics covered in the text include bacteria and enzymatic test, remineralization, and the use of sealants. Also covered are noninvasive methods of cavity preparation such as sonic techniques and the use of lasers. There is a chapter set aside specifically on how to select restorative materials for the precise cavity preparation that has been created. The chemomechanical treatment of caries is a chapter that stands out in the text; the photographs are vivid with respect to the use of Carisolv.

Additionally, the text utilized a diversity of visual aids to help the reader remember the information. From bar graphs to pie charts, and histologic sections, the reader has a wide range of tools designed for retention of the dental concepts discussed. The clinical, color photos of carious lesions are clear to observe (a fantastic example is on page 3). Schematic diagrams are simple to visualize and commit to memory. Some chapters even have a "further reading" segment, which augmented the list of references. Conclusions at the end of each chapter assist the reader in pinpointing the author's intent.

Minimally Invasive Dentistry will allow the dental hygienist a glimpse into the world of operative dentistry in the dental offices where they practice. Although it seems to be written for practicing dentists and undergraduates as well as graduate dental students, there are a few chapter sections which appear to be just tailor-made for the dental hygienist. Chapter 3 is

a prime example. In it, there is a section on the clinical application of the Clinpro Cario Diagnosis L-pop (CCLP) and the Clinpro Cario Diagnosis (CCD) tests. The points that are important for the dental hygienist to consider, which are adjunctive to these tests, are oral hygiene instructions, specific tooth-brushing teaching for their patients, and methods to improve plaque control. The brief step-by-step pictorial description in chapter 3 allows the reader to get a quick idea of how to apply any one of the novel technologies that are reviewed.

Chapter 4 has a few methods that the dental hygiene professional can use in the initial clinical dental exam for the diagnosis of caries. These include visual-tactile techniques, the use of dental floss, and trans-illumination. The other chapter that is pertinent to the work of a dental hygienist is chapter 11. Here, the aging dental population is addressed, and the main point stressed is the importance of catering all our dental techniques to those whose manual dexterity and physical condition is diminished. It appears that chapter 11 would have been more suitable as a factor or section of chapter 3. Dental hygienists can definitely benefit from this body of work. Even though they may not directly operate the immediate equipment and technology, they can be a superb source of the innovative information that this book provides to the dentists with whom they work. They can offer suggestions to their offices as to what is available today in the detection of caries. The knowledge they gain will ultimately be an asset to the profession and a benefit to the ultimate preservation of the dentition.

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Review of: Essential Endodontology: Prevention and Treatment of Apical Periodontitis, Second Edition

Ruth Fearing Tornwall, RDH, MS

Reviewed by Ruth Fearing Tornwall, RDH, MS, associate professor at the Lamar Institute of Technology in Beaumont, Tex.

Essential Endodontology: Prevention and Treatment of Apical Periodontitis, Second Edition

Orstavik D and TP

Wiley-Blackwell

Oxford, UK, 2008

488 pages, illustrated, indexed, hard cover

ISBN: 1-40514-976-0

\$179.99

Essential Endodontology: Prevention and Treatment of Apical Periodontitis is a major comprehensive text on apical periodontitis. The book is written primarily for graduate students of endodontology, specialists or interested general practitioners, and more recently for undergraduate students. It may also be of interest to dental hygienists or dental hygiene faculty who have a special interest in this area and wish to have a significant document for reference in their own library.

This edition reflects the progress in scientific and clinical research, which has led to an increased understanding of the diagnosis, treatment, prevention, and etiology of apical periodontitis. At the same time it has kept its basic core information from its first edition on apical periodontitis as a specific disease entity. There are 14 chapters that cover this information in detail. Chapters are broken into outlined numbered sections covering the specific topic. Each chapter contains extensive references that provide the support for the information in the chapter. The references also document research activity. The chapters are complemented with pictures, both colored and black and white, histological pictures, diagrams, schematics, and photomicrographs.

Chapter 1 begins with an introduction into apical periodontitis, terminology, and the biological and clinical significance of this disease entity. Chapter 2 provides foundation information on the pulp tissue, dentin, blood flow within the pulp, inflammatory reactions, the periodontium, periodontal ligament, cementum, and alveolar bone. Chapter 3 describes the pathogenesis of pulpal and periapical inflammations, and discusses the mechanisms of their development. Chapter 4, Pathobiology of Apical Periodontitis, discusses the microbes and host defense as a dynamic encounter, which results in favor of the host or a variety of categories of lesions of apical periodontitis. Chapter 5 provides an extensive discussion of the microbiology of apical periodontitis. Chapter 6 is concerned with radiology as a diagnostic aid and as a tool for follow-up assessment and epidemiological studies. Chapter 7, Clinical Manifestations and Diagnosis, emphasizes the importance of correct pulpal diagnosis as the key to all endodontic treatments. The author states the clinical diagnosis should be based on history of symptoms, presenting symptoms, diagnostic tests, and clinical findings. Therapy should not be initiated until the diagnosis can be established. Other chapters cover the epidemiology of apical periodontitis, prevention

and management in primary teeth, treatment of the exposed pulp-dentin complex, and endodontic treatment of teeth with and without apical periodontitis. Chapter 13 discusses surgical treatment. The last chapter reviews reports on the outcomes in the prevention and treatment of apical periodontitis, defines the prognosis of these treatments and identifies predictors of their outcomes.

The text is very successful in providing a systematic analysis of the most recent relevant research in the area of apical periodontitis. The text would be an asset to any dental professional who has an interest in this area.