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**PRACTICE
SOFTWARE
INCLUDED**

Delmar's
Dental Assisting
A COMPREHENSIVE APPROACH

2nd Edition

Donna J. Phinney
Judy H. Halstead

Delmar's **Dental Assisting**

A COMPREHENSIVE APPROACH

SECOND EDITION

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Delmar's Dental Assisting: A Comprehensive Approach

Second Edition

by Donna J. Phinney and Judy H. Halstead

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PREFACE

INTRODUCTION

The world of health care has changed rapidly over the past few years. As we enter the twenty-first century, health-care professionals will encounter more challenges than ever before, but with challenge comes opportunity. Job prospects for dental assistants have never been better. The Bureau of Labor Statistics expects employment to grow much faster than average for all occupations through the year 2006. Population growth and greater retention of natural teeth will fuel demands for dental services. As the health-care industry requires more work to be done by dentists, the dental assistant will be more valuable and needed than ever before.

As dental assistants, you'll be expected to take on an increasing number of clinical and administrative responsibilities to stay competitive. Now is the time to equip yourselves with the range of skills and competencies you'll need to excel in the field. Now is the time to maximize your potential, to expand your base of knowledge, and to dedicate yourself to becoming the multifaceted dental assistant required in the twenty-first century.

As a dental assisting student, Delmar's new text and complete learning system, *Delmar's Dental Assisting: A Comprehensive Approach, 2nd edition*, will guide you on this journey. The result of years of research, writing, and testing, this system is designed to prepare the dental assisting student for Dental Assisting National Board (DANB) certification. It presents information in a unique manner, using a variety of formats that account for the many ways in which today's students learn.

To receive the full value of *Delmar's Dental Assisting: A Comprehensive Approach, 2nd edition*, it's important to understand the structure of the text, chapters, and supplements and how they are all integrated into a complete learning system. Together, these materials will make your dental assisting education comprehensive and meaningful, providing you with the skills, knowledge, principles, values, and understanding to excel in your chosen profession into the twenty-first century.

THE LEARNING SYSTEM

The components of the learning system were developed with today's learner in mind. The authors and Delmar Learning recognize that students learn in different ways—They read, write, listen, watch, interact, and practice. For this reason, we've created a variety of products learners can use to fully comprehend and retain what they're taught. An instructor's manual ties the components together, making classroom integration easy and fun.

• The Text

This text delivers comprehensive coverage of dental assisting theory and practice, supported by full-color illustrations and photographs throughout and 142 step-by-step procedures in 8 sections. Section I—*Introduction*—introduces learners to the profession and its history. Section II—*Basic Dental Sciences*—covers the basics of dental anatomy, embryology, histology, tooth morphology, charting, and microbiology, creating a foundation on which learners can move forward to skills training. Section III—*Preclinical Dental Skills*—prepares students in the areas of infection control, hazardous materials management, patient care, pharmacology, and emergency management, critical elements to the profession. Section IV—*Clinical Dental Procedures*—covers chairside assisting, instruments, management of pain and anxiety, and dental radiography. Section V—*Dental Specialties*—introduces learners to the specialized areas of endodontics, oral maxillofacial surgery, oral pathology, orthodontics, pediatric dentistry, periodontics, fixed prosthodontics, and removable prosthodontics. Section VI—*Restorative and Laboratory Materials and Techniques*—covers chairside restorative materials and techniques and laboratory and impression materials and techniques. Section VII—*Expanded Functions*—introduces advanced techniques, such as dental dam placement, coronal polish, and retraction cord placement, that can be performed in various states' practices. Section VIII—*Dental Practice Management*—contains coverage of dental office management, dental computer software, dental insurance, employment portfolios, and legal and ethical considerations, important components for managing a dental practice properly.

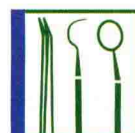
Each textbook comes with **free practice software**. The disk contains over 1,500 exercises that use a variety of formats—multiple choice, short answer, true/false, matching, and concentration—to further reinforce content.



HANDWASHING



GLOVES

MASK AND
PROTECTIVE EYEWEAR

BASIC SETUP

EXPANDED
FUNCTIONS

LEGAL



SAFETY



TECHNOLOGY

GLOBAL/CULTURAL
ISSUESDANB EXAM
COMPONENT

"How to Use this Text" and "How to Use the Practice Software" sections guide instructors and students through the text and software programs, enabling teaching and learning in the best way possible. Appendices and a comprehensive glossary and index are also included.

Chapters include the following pedagogical features:

- Chapter outline
- Objectives
- Key terms (key terms also appear in color in the text)
- Pronunciation of difficult terms the first time they appear in the text
- Introduction
- Step-by-step procedures with icons indicating handwashing, gloves, mask and protective eyewear, basic setup, and expanded functions
- In-text icons identifying legal, safety, technology, global/cultural issues, and DANB exam components
- Boxed information containing tips and summaries
- Summary
- Case studies
- Web activity boxes
- Review questions, including critical thinking

A second **Skills CD**, optionally available packaged with the text, offers activities that simulate dental assisting skills such as dental charting, tray setup, radiograph mounting, and taking vital signs. These activities give learners a chance to practice and test their understanding of content in the text. A network version of this skills CD (order #1-4018-3489-2) is also available for a multi-user or lab situation.

• **Instructor's Manual (Order #1-4018-3482-5)**

The *Instructor's Manual* ties the learning system together, providing the traditional components of course objectives, summaries, answers to text and workbook questions, and skills competency checklist sheet to gauge student achievement.

• **Electronic Classroom Manager (Order #1-4018-3484-1)**

An Electronic Classroom Manager (ECM) is available to facilitate classroom preparation, presentation, and testing. Components include a(n):

- Computerized test bank, a 1,500-question bank with questions geared to text chapters and the DANB exam
- Powerpoint presentation, designed to support and facilitate classroom instruction
- Electronic version of the *Instructor's Manual*, so notes and ideas can be customized
- Electronic image library containing files of hundreds of images from the text

• **Student Workbook (Order #1-4018-3483-3)**

The workbook, which corresponds to the text, contains chapter objectives, summaries, key terms, exercises in a variety of formats, and skill sheets to test competencies.

• **Web Tutors**

The self-paced Web Tutor modules include chapter objectives, Powerpoint files, quizzes, Web links, critical thinking questions from the text put on a discussion board, and video links. Both Web CT (order #1-4018-3486-8) and Blackboard (order #1-4018-3487-6) formats are available.

• **Delmar's Dental Assisting Curriculum (Order #1-4018-5256-4)**

This resource pulls together the entire dental curriculum, cross referencing all of Delmar's dental assisting materials to create a dynamic learning system.

• **Transparencies (Order # 0-8273-9072-6)**

Fifty-four color transparencies support the text concepts.

• **Other Supporting Materials Include:**

- Delmar's Dental Assisting Exam Review (Melissa Thibodeaux-Campbell, CDA, RDA, BS)
- Dental Drug Reference (Elena Bablenis Haveles, PharmD)
- Dental Terminology (Charline Dofka)
- Dental Office Management (Ellen Dietz, CDA, AAS, BS)
- Dental Assisting Video Series

When you use all these components together, you'll discover an innovative, comprehensive system of teaching and learning that prepares students for success in the twenty-first century.

ABOUT THE AUTHORS

Donna J. Phinney is the chair for Spokane Community College's Allied Health department and the Program Director for the Dental Assisting Program. She has spent more than 20 years in the dental field as a dental assistant, a dental office consultant, an office manager, and an educator. Donna holds a bachelor of arts from Eastern Washington University, a master in education from Whitworth College, and an associate of science and certificate in dental assisting from Spokane Community College. A certified dental assistant, she is active in the Washington State Dental Assisting Association, where she served as president from 1992–1993.

Judy H. Halstead is a dental assisting instructor at Spokane Community College. She has more than 20 years experience teaching and more than 10 years experience as a dental assistant. She was a program director for dental assisting in a private college and for a high school skills center. Judy holds a bachelor of arts from Eastern Washington University, is a certified dental assistant, and has an expanded functions certificate. She has been a member of local, state, and national Dental Assistants Associations for the past 25 years. She served as president of the Washington State Dental Assisting Association from 1994–1995.

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HOW TO USE THIS TEXT

Dental assisting is an ever-evolving profession full of opportunity and challenge. *Delmar's Dental Assisting: A Comprehensive Approach, 2nd edition* is designed to help you acquire the knowledge, skills, and values necessary to become a successful dental assistant. The text is organized into eight main sections that reflect the broad areas of dental assisting responsibility. These sections are then divided into a total of 31 chapters of related information. The text has many unique features that will make it easier for you to learn and integrate theory and practice, including:

TECHNOLOGY

CD icons indicate when a chapter has corresponding activities on the enclosed Practice CD or optional Skills CD.

CHAPTER OUTLINE

At the beginning of each chapter is an outline listing the main headings covered in the chapter. Review these headings of topic areas before you study the chapter. They will be a roadmap to the material in the chapter.

OBJECTIVES

Learning objectives identify the key information to be gained from the chapter. Use these objectives with the review questions to test your understanding of the chapter's content.

KEY TERMS

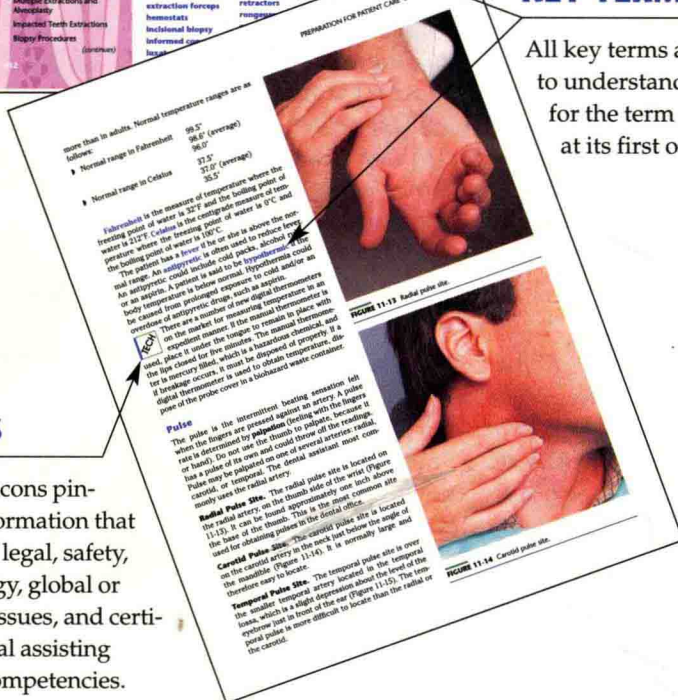
All key terms are listed at the beginning of each chapter. Read the text to understand how the term is used in context; turn to the glossary for the term definition. In the text, the term is always blue boldface at its first occurrence, for easy identification.

ICONS

Graphic icons pin-point information that relates to legal, safety, technology, global or cultural issues, and certified dental assisting (CDA) competencies.

PROCEDURES

Step-by-step procedures give detailed information on dental assisting competencies. Icons at the beginning of procedures indicate which function, instruments, and protective equipment are required for the procedure.



COLOR ILLUSTRATIONS, PHOTOS, AND TABLES

Full-color illustrations and photos with detailed captions reinforce chapter material. Tables summarize important facts or concepts presented in the text.

MAINTAINING THE OPERATING FIELD

Maintaining the operating field is the process of keeping the area directly available to the treatment clean, dry, and as accessible as possible. Good conditions for the operator ensure the surgical hands stay in the position for use.

- 1 The operator's gloves and apron are not obscured by the oral tissues, moisture, or debris.
- 2 Fluids do not interfere with the application of dental materials.
- 3 There are no fluids or materials for the patient to ingest or aspirate.
- 4 There is no interference with the manipulation of the materials and the instruments being used by the operator.

CHAPTER SUMMARY

The chapter summary emphasizes key concepts from the chapter to help you focus your study.

CASE STUDIES

The case studies and review questions present real-life scenarios requiring a problem/solution approach. Use the case studies to put your knowledge into practice and to arrive at a deeper understanding of the dental assisting profession.

REVIEW QUESTIONS

Test your comprehension of the chapter with structured multiple choice questions and open-ended critical thinking questions that require you to combine an understanding of chapter material with your personal insight and judgement.

WEB ACTIVITY BOXES

Internet exercises in each chapter encourage Web searches to locate information.

TABLE 16-1 Maxillary Local Anesthesia Injection Sites		
Name of Injection	Affected Teeth/Thuses	Location of Injection
Anterior superior alveolar nerve block (also referred to as the infraorbital nerve block)	Individual teeth	Near the apex of the tooth, just above the maxillary first premolar
Posterior superior alveolar nerve block	Maxillary premolars in one quadrant and molars in the other quadrant	Near the apex of the tooth, just above the maxillary first premolar
Greater palatine nerve block	Maxillary premolars in one quadrant and molars in the other quadrant	Near the apex of the tooth, just above the maxillary first premolar
Infraorbital nerve block	Maxillary premolars in one quadrant and molars in the other quadrant	Near the apex of the tooth, just above the maxillary first premolar
Maxillary nerve block	The entire maxillary arch	Near the apex of the tooth, just above the maxillary first premolar

TABLE 16-2 Mandibular Local Anesthesia Injection Sites		
Name of Injection	Affected Teeth/Thuses	Location of Injection
Inferior alveolar nerve block (also referred to as the mandibular block)	Individual teeth	Near the apex of the tooth, just below the mandibular first premolar
Buccal nerve block	Maxillary premolars in one quadrant and molars in the other quadrant	Near the apex of the tooth, just below the mandibular first premolar
Lingual nerve block	Maxillary premolars in one quadrant and molars in the other quadrant	Near the apex of the tooth, just below the mandibular first premolar
Mental nerve block	Maxillary premolars in one quadrant and molars in the other quadrant	Near the apex of the tooth, just below the mandibular first premolar
Sublingual nerve block	Maxillary premolars in one quadrant and molars in the other quadrant	Near the apex of the tooth, just below the mandibular first premolar

Broken Teeth

A patient may call with a broken tooth. Anterior teeth are commonly fractured at dental clinics, on chewing surfaces, or on the lingual side. The dental assistant must determine whether the patient wants to have the tooth restored or if the tooth should be extracted. In most cases, the patient wants the tooth restored. The dental assistant must determine the extent of the fracture and the type of restoration that is needed.

Loose Permanent or Temporary Crown

A patient's crown may become loose or come off, requiring replacement. The dental assistant must determine if the crown is a permanent or temporary crown. If it is a permanent crown, the patient must be referred to the dentist for replacement. If it is a temporary crown, the patient may be able to wear the crown until it can be replaced.

CHAPTER SUMMARY

Even though the number of emergencies is not high, the dental assistant must be prepared to deal with them. Emergencies may happen to any dental assistant. When an emergency arises, the dental assistant must act quickly and calmly. The dental assistant must follow the dentist's instructions and use the appropriate techniques to manage the emergency. The dental assistant must also be able to communicate effectively with the patient and the dentist.

Case Study

Review the case study and answer the questions. The case study is a real-life scenario that requires a problem/solution approach. Use the case study to put your knowledge into practice and to arrive at a deeper understanding of the dental assisting profession.

Case Study Review

1. What is the problem?
2. What is the solution?
3. What is the outcome?

REVIEW QUESTIONS

Multiple Choice

1. An exaggerated reaction of the immune system is called an:

- a. allergy
- b. anaphylaxis
- c. anoxia
- d. anuria

2. Anaphylaxis is more frequent in the:

- a. late evening
- b. afternoon
- c. morning
- d. night

3. A medical term for glass laves is:

- a. edema
- b. erythema
- c. urticaria
- d. angioedema

4. A seizure in which a person experiences a momentary loss of consciousness is called a:

- a. grand mal seizure
- b. petit mal seizure
- c. partial seizure
- d. status epilepticus

5. The type of diabetes mellitus that is more severe is:

- a. I
- b. II
- c. III
- d. IV

Critical Thinking

1. A patient is having extensive dental work completed. The patient's health history indicates a history of epilepsy. The patient becomes nervous and then unconscious as the body begins to jerk, twitch, and stiffen. How should the dental team respond?

2. The disease in which an individual has too little glucose or sugar is called hypoglycemia. What are the signs for treating a patient experiencing hypoglycemia?

3. A patient has heart disease that continues to progress over the years. He has a condition that will not allow the heart to receive the oxygenated blood that it needs. What is the condition and what is it commonly called?

Web Activities

1. Look up the chain of survival at <http://www.aahd.org> and list the four steps in the chain of survival.

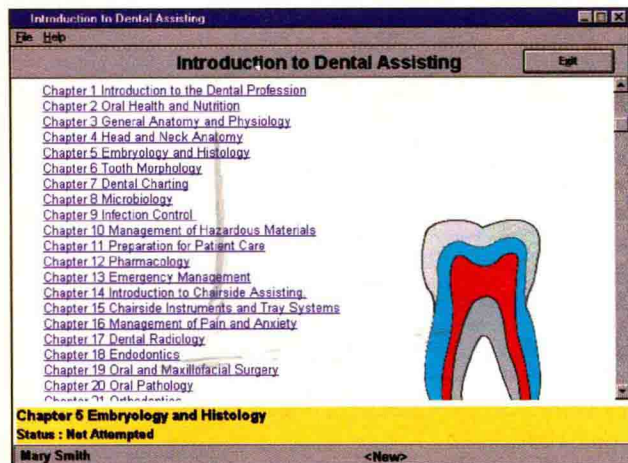
2. Go to <http://www.aahd.org> and find the address and phone number of the Red Cross closest to you.

3. Go to <http://www.aahd.org> and look up the address and phone number of the Red Cross closest to you.

4. Complete a one-page report on one recent discovery article.

HOW TO USE THE PRACTICE SOFTWARE

The Student Practice Software has been designed to accompany *Delmar's Dental Assisting: A Comprehensive Approach, 2nd edition*. By using these exercises and games, you'll challenge yourself and other students, making your study of dental assisting more effective and fun.

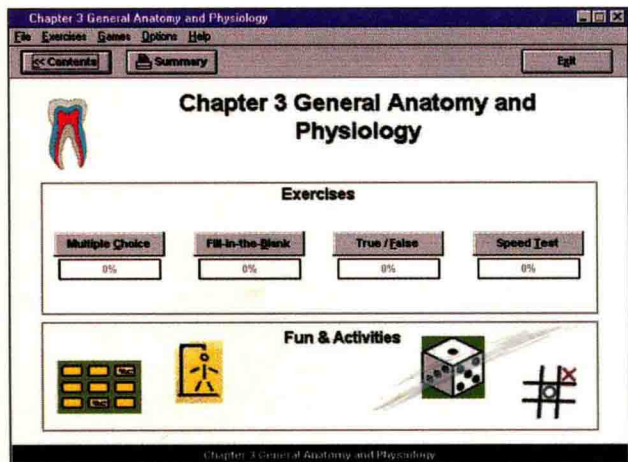


MAIN MENU

The main menu follows the chapter organization of the text exactly—which makes it easy for you to find your way around. Just click on the button for the chapter you want, and you'll arrive at the chapter opening screen.

TOOLBAR

The button at the top left of every screen allows you to retrace your steps, while the Exit button gets you out of the program quickly and easily. As you navigate through the software, check the toolbar for other features that help you use individual exercises or games.



ON-LINE HELP

If you get stuck, just press F1 or click on the **Help** menu for assistance. The on-line help includes instructions for all parts of the Student Practice Software.

THE CHAPTER SCREEN

Here you have the opportunity to choose how you want to learn the material. Select one of the exercises for additional practice, review, or self-testing, or click on a game to practice the content for that chapter in a fun format.

Minimum System Requirements:

Operating System: Microsoft® Windows® 98 or later
Processor: Pentium or faster
24 MB or more
Hard disk space: 10 MB or more
CD-ROM drive: 2X

EXERCISES

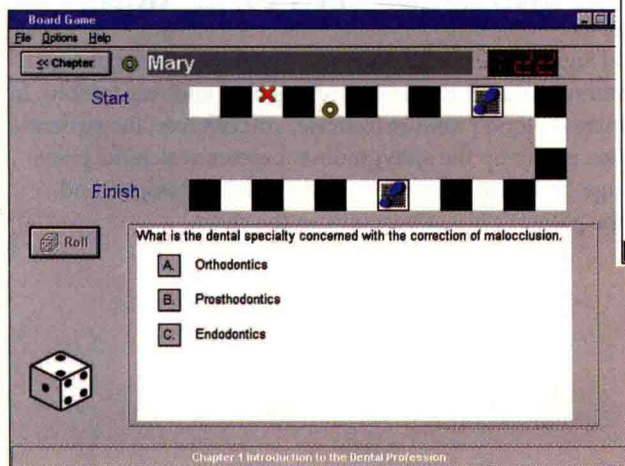
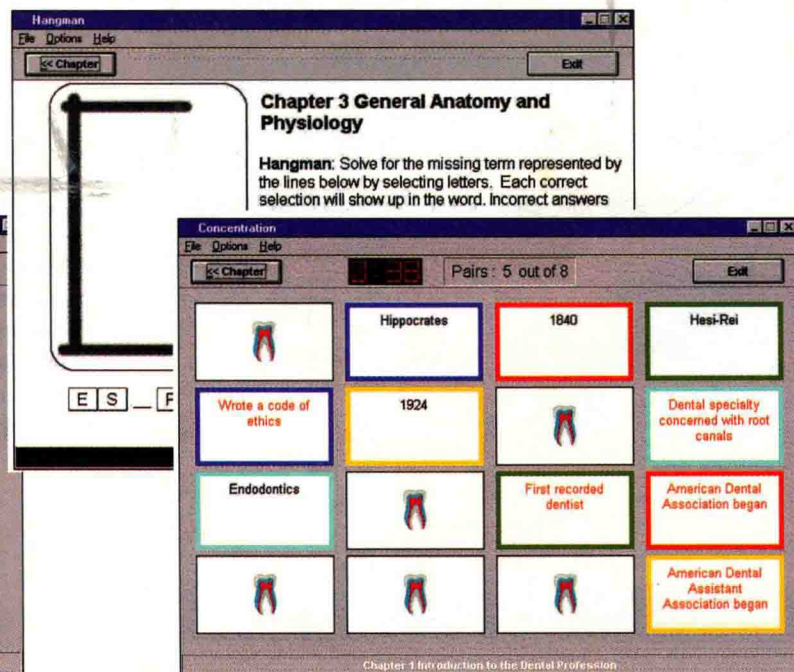
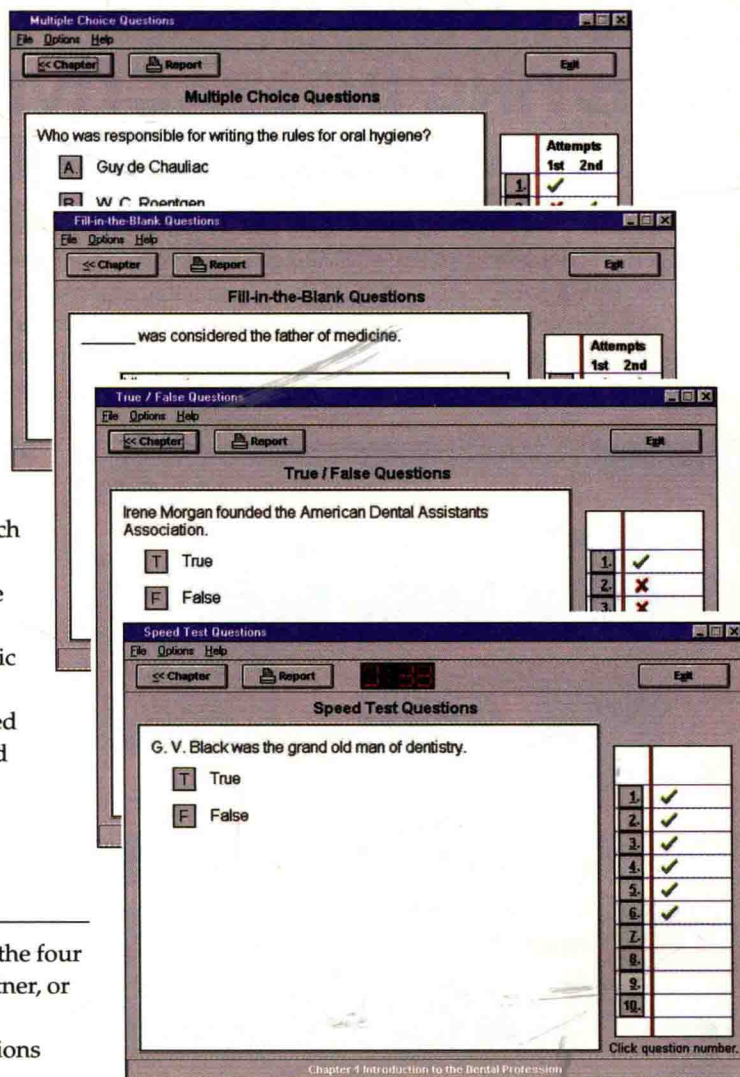
The Student Practice Software acts as your own private tutor. For each exercise, it chooses from a bank of over 1,500 questions covering all 31 chapters. Putting these exercises to work for you is simple:

- Choose an exercise from those displayed (e.g., multiple choice, true or false, fill-in-the-blank, matching, or labeling exercise).
- You'll encounter a series of 8–10 questions for each exercise format; each question gives you two chances to answer correctly.
- Instant feedback tells you whether you're right or wrong—and helps you learn more quickly by explaining why an answer was correct or incorrect.
- The Practice Software displays the percentage of correct answers on the chapter screen. An on-screen score sheet (which you can print) lets you track correct and incorrect answers.
- Review your previous questions and answers in an exercise for more in-depth understanding, or start an exercise over with a new, random set of questions that gives you a realistic study environment.
- When you're ready for an additional challenge, try the timed Speed Test. Once you've finished, it displays your score and the time you took to complete the test, so you can see how much you've learned.

FUN AND GAMES

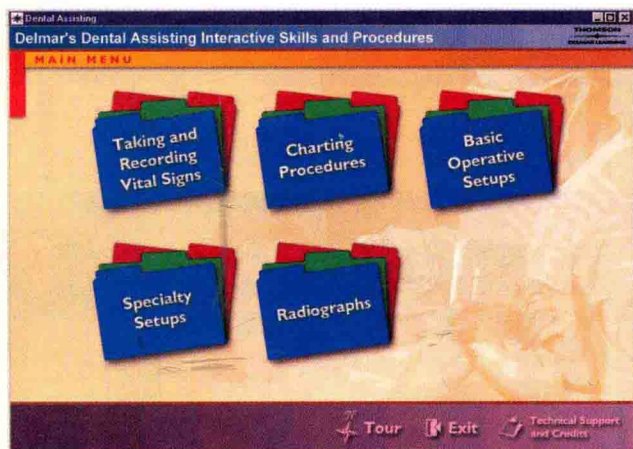
To have fun while reinforcing your knowledge, enjoy each of the four simple games on the software. You can play alone, with a partner, or on teams.

- **Concentration:** Match terms to their corresponding definitions under the cards as the timer runs.
- **Hangman:** Review your spelling and vocabulary by choosing the correct letters to spell dental words appropriate to the chapter before you're "hanged."
- **Board Game:** Challenge your classmates and increase your knowledge by playing this question-and-answer game.
- **Tic-Tac-Toe:** You or your team must correctly answer a dental question before playing an X or an O.



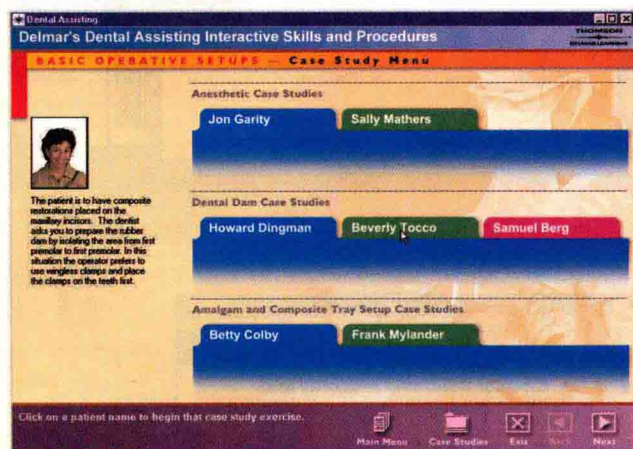
HOW TO USE DELMAR'S DENTAL ASSISTING INTERACTIVE SKILLS AND PROCEDURES SOFTWARE

Delmar's Dental Assisting Interactive Skills and Procedures Software has been designed to help you practice essential dental assisting skills covered in *Delmar's Dental Assisting: A Comprehensive Approach, 2nd edition*. In these interactive exercises you will read patient profiles and then take blood pressures, complete oral and periodontal charts, mount radiographs, and set up dental trays for many different types of procedures, such as amalgam and composite restorations, oral surgery, periodontics, endodontics, and prosthodontics.



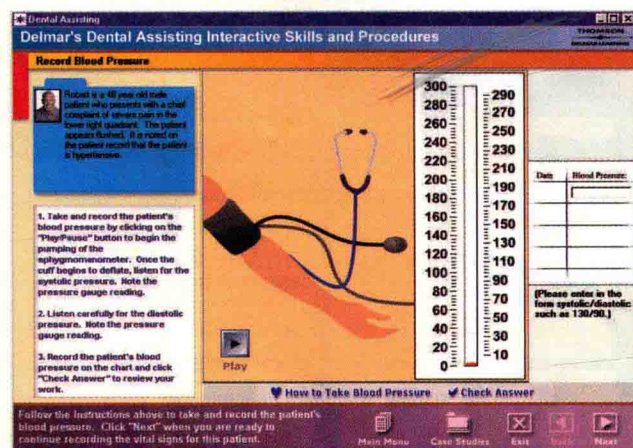
MAIN MENU

From the main menu, you can select the type of skill you want to practice. You can choose Taking and Recording Vital Signs, Charting Procedures, Basic Operative Setups, Specialty Setups, and Radiographs.



CASE STUDY MENU

All of the exercises are based on case studies of individual patients. From the case study menu, choose a patient file and then practice the dental assisting skill for that patient's procedure. When you are finished with one case, you can choose another or go back to the main menu.

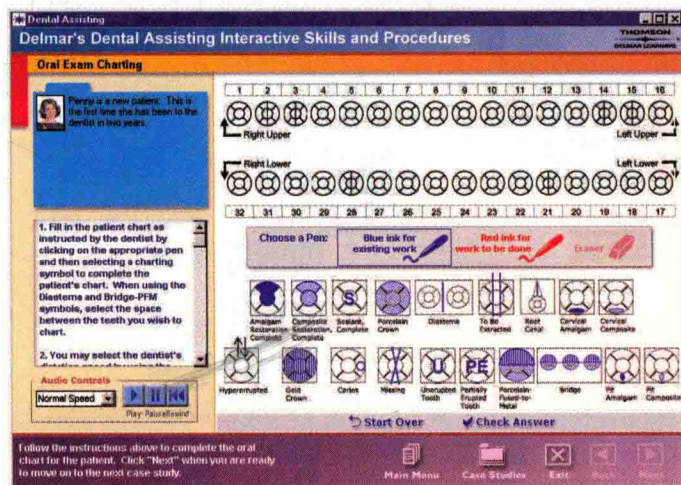


TAKING AND RECORDING VITAL SIGNS

The Vital Signs exercises let you practice taking and recording blood pressure and TPR (temperature, pulse, and respiration). In the simulated blood pressure exercise, you can read the patient's chart, then pump up the sphygmomanometer, watch the pressure gauge, listen for the systolic and diastolic pressure, and record the patient's blood pressure on the chart.

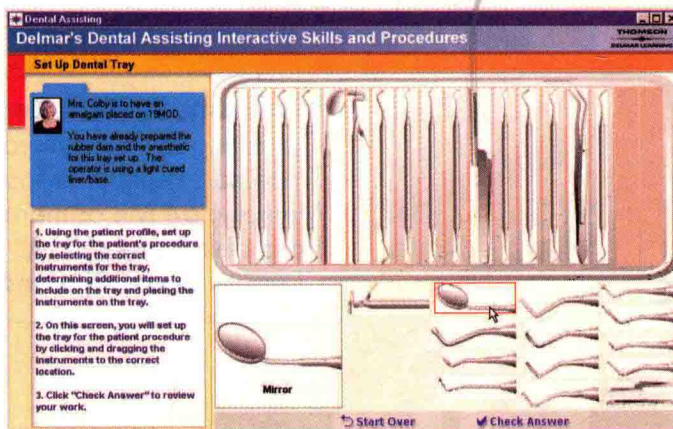
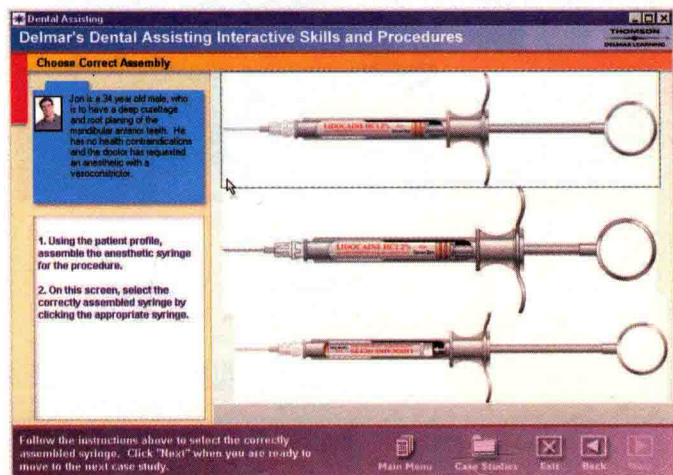
CHARTING PROCEDURES

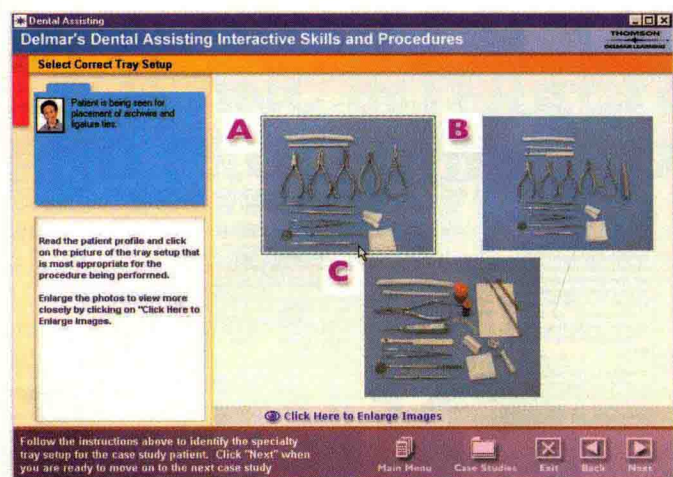
The Charting Procedures exercises will give you practice filling in interactive oral exam and periodontal charts while listening to the dentist's dictation. You can vary the rate of the dentist's dictation, increasing your skill by beginning with very slow and progressing to normal speed dictation.



BASIC OPERATIVE SETUPS

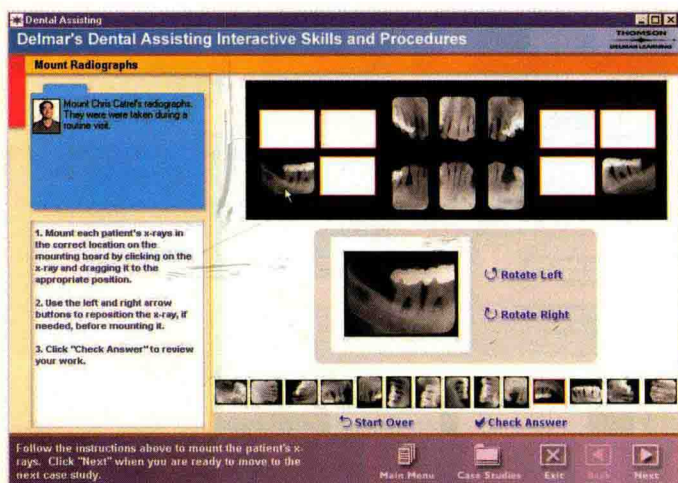
The Basic Operative Setups exercises will give you practice assembling anesthetic syringes, punching and assembling dental dams, and setting up dental trays for amalgam and composite restorations. In the anesthetic exercises, you will choose the correct anesthetic carpules, the correct syringe, and the correctly assembled syringe for the patient. The dental dam exercises ask you to select the correct armamentarium for the tray, correctly punch the dental dam, and choose the properly assembled dental dam for the patient.





SPECIALTY SETUPS

The Specialty Setups exercises will give you practice in recognizing the appropriate tray setups for the specific procedures the patients are going to have done. You can review many different trays set up for oral surgery, periodontics, endodontics, orthodontics, and prosthodontics, and then choose the correct tray for the patient's procedure.



RADIOGRAPHS

The Radiographs exercises will give you practice in mounting radiographs. In each Mounting Radiographs exercise, you are given a full set of x-rays and you identify them, rotate and position them, and place them correctly in the mount.

Minimum System Requirements:

Operating System: Microsoft® Windows® 98 or later

Processor: Pentium or faster

Memory: 64 MB or more

Hard disk space: 50 MB or more

CD-ROM drive: 4X or faster

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