Learning Objectives
Lesson 1.1: Early History of Dentistry and Dental Education

1. Pronounce, define, and spell the key terms.
2. Compare and contrast the early contributions in dentistry of ancient cultures in Egypt, Greece, China, and Rome, including the following:
   • The role of Hippocrates in history.
   • The basic premise of the Hippocratic Oath.
   • The culture that first developed a silver amalgam paste for filling teeth.
   • Important Romans who contributed to oral hygiene and dentistry.
Learning Objectives
Lesson 1.1: Early History of Dentistry and Dental Education (Cont.)

3. Identify the important contributions of the Renaissance period in dental history, including Leonardo da Vinci’s contribution to dentistry.

4. Identify the important contributions of early America in dental history, including the individual credited with beginning the science of forensic dentistry.
Learning Objectives
Lesson 1.1: Early History of Dentistry and Dental Education (Cont.)

5. List the important contributions in dental education and professional development, including the following:
   - The contributions of Horace H. Hayden and Chapin A. Harris.
   - Two major contributions of G. V. Black.
   - The scientist who discovered x-rays.
   - The physician who first used nitrous oxide for tooth extractions.
Introduction

- A profession that is ignorant of its past experiences has lost a valuable asset because “it has missed its best guide to the future.”
  
  B.W. Weinberger
  
  *Dentistry: An Illustrated History*
  
  (Ring, 1995)
Dentistry has a long and fascinating history. From the earliest of times, human beings have been plagued by dental disease. Many of the remarkable techniques used in modern dentistry can be traced to the very earliest of times in every culture.
Early Times: The Egyptians

- Hesi-Re was the earliest dentist whose name is known
  - He practiced about 3000 BC and was called “Chief of the Toothers and the Physicians”
- Egyptian pharaohs were known to have suffered from periodontal (gum) disease
  - Radiographs of mummies confirm this fact
Early Times: The Greeks

- Hippocrates (460-377 BC) earned the title of “Father of Medicine”
- Aristotle (384-322 BC), the great philosopher, referred to teeth in many of his writings
- Diocles of Carystus, physician of Aristotle’s time, recommended “rubbing the teeth and gums” as oral hygiene instructions
Early Times: The Chinese

- By 2000 BC the Chinese were practicing dentistry.
- Around the second century AD, more than 1000 years before dentists in the West, the Chinese developed a silver amalgam paste for fillings.
- T’ing To-t’ung and Yu Shu described the entire process of swallowing in the 11th century.
Early Times: The Romans

- Several Roman physicians wrote extensively about dentistry
- Many people still believed in the theory of the toothworm being responsible for toothaches
- The Romans were skilled in restoring decayed teeth with gold crowns
- They had a high regard for oral hygiene
The Renaissance

- Leonardo da Vinci studied human anatomy and sketched every part of the human body
  - He was the first to differentiate between molars and premolars
- Ambroise Paré was the father of modern surgery
- Pierre Fauchard was the founder of modern dentistry
  - He developed dentistry as a profession independent from medicine
Early America

- Robert Woofendale was one of the first dentists in the colonies
- John Baker, MD, practiced dentistry in New York, Boston, and Philadelphia
  - George Washington was one of his patients
- Paul Revere, the famous colonial patriot, was a silversmith who became a dentist
  - He is credited as the first to use forensic dental evidence to identify human remains
Early America (Cont.)

- Isaac Greenwood was the first native-born American dentist
  - He studied under Dr. John Baker
- John Greenwood was the second son of Isaac Greenwood
  - He served in the American Revolutionary Army at the age of 14 years
  - He later became a dentist like his father
John Greenwood, Dentist to George Washington

Educational and Professional Development in the United States

- Horace Hayden and Chapin A. Harris laid the foundation for the profession of dentistry.
- Together they established the first dental college, the Baltimore College of Dental Surgery.
- Today the college is known as the School of Dentistry at the University of Maryland.
Dr. Green Vardiman Black

- Known worldwide as G.V. Black, he earned the title of the “Grand Old Man of Dentistry”
- Black standardized the rules of cavity preparation and fillings
- He developed the principle of “extension for prevention”
- He taught in dental schools, became a dean, and wrote more than 500 articles and several books
G. V. Black, the “Grand Old Man of Dentistry”

Black’s Dental Treatment Room, as Reconstructed in a Smithsonian Exhibit
Wilhelm Conrad Roentgen (1845-1923)

- This Bavarian physicist discovered x-rays in 1895
- His discovery revolutionized diagnostic capabilities and forever changed the practice of dentistry
Roentgen Discovered the Early Potential of a Radiograph Beam in 1895
Horace Wells (1815-1848)

- Dr. Wells, a dentist, is credited with the discovery of inhalation anesthesia in 1844.
- This was one of the most important medical discoveries of all time.
- He realized the potential for pain-free dentistry through the use of nitrous oxide.
6. Identify key women in dental history, including the following:
   • The woman dentist who discovered oral hairy leukoplakia.
   • The first woman to graduate from a college of dentistry.
   • The first woman to practice dentistry in the United States.

7. Identify key African Americans in dental history, including the following:
   • The first African American woman to receive a dental degree in the United States.
   • The first African American to receive the DMD degree from Harvard University.
8. Identify key American Indians in dental history, including the following:
   • The first American Indian to receive a dental degree in the United States.
   • The first American Indian woman to receive a dental degree in the United States.
Learning Objectives
Lesson 1.2: Pioneers of Dentistry (Cont.)

9. Identify key historical contributors in the field of dental assisting and dental hygiene, including the following:
   - The first dentist to employ a dental assistant.
   - The contributions of Ann Ehrlich and Hazel Torres to dental assisting education.
   - The first person to become a dental hygienist.
   - The contribution of Dr. Alfred C. Fones to the dental profession.
Learning Objectives
Lesson 1.2: Pioneers of Dentistry (Cont.)

10. Explain the process of dental accreditation and its importance.
11. Discuss the purpose and activities of the National Museum of Dentistry.
Women in Dental History

- In the 18th and early 19th centuries, dental schools throughout the world did not accept female students.
- Women such as Lucy B. Hobbs-Taylor and Nellie E. Pooler Chapman broke those barriers.
- Emeline Robert Jones became the first woman dentist in the United States.
  - At 17 years of age she worked for her dentist husband, who trained her in his office to become a dentist.
  - She later opened her own dental practice.
Women in Dental History (Cont.)

• Today, women are active in dental associations, specialties, public health, and the military
• It is projected that by the year 2020, 20% of all dentists will be women
Dr. Nellie E. Pooler Chapman

Courtesy School of Dentistry, University of California San Francisco.

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Lucy B. Hobbs-Taylor

- Denied admission to a dental college, Lucy B. Hobbs-Taylor went to work for a dentist who trained her in his office to become a dentist
- She later opened her own dental practice in Cincinnati and then opened a dental office in Iowa
- Dr. Hobbs-Taylor was admitted to the Ohio College of Dental Surgery and was the first woman to graduate from a dental school
Lucy B. Hobbs-Taylor (Cont.)

Courtesy Kansas State Historical Society, Topeka, KS.
African Americans in Dental History

- Ida Gray (1867-1953) was the first black woman in the country to earn a formal DDS degree and the first black woman to practice dentistry in Chicago.
- She graduated from the University of Michigan School of Dentistry and practiced dentistry in Chicago until she retired in 1928.
- In 1929 she married William Rollins and used the name Dr. Ida Gray-Rollins.
African Americans in Dental History (Cont.)

- In 1867, Harvard University initiated its first dental class and accepted Robert Tanner Freeman as its first black student.
- Ida Gray-Rollins was the first black woman in the country to earn a formal DDS degree, and the first black woman to practice dentistry in Chicago.
- African Americans have been appointed deans and faculty members at a number of American dental schools.
American Indians in Dental History

- Dr. George Blue Spruce, Jr. is the first American Indian dentist in the United States
  - He is currently the Assistant Dean for American Indian Affairs at the Arizona School of Dentistry and Oral Health
- Jessica A. Rickert became the first recognized American Indian female dentist in 1975
  - She received the 2005 Access Recognition Award from the ADA for leadership in helping people in need gain access to dental care

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History of Dental Assisting

- C. Edmund Kells, a New Orleans dentist, is credited with using the first dental assistant

- She was a “lady in attendance,” making it respectable for women patients to go into a dental office unaccompanied

- Dr. Kells soon realized that this lady could be a valuable asset, and by 1900 he was working with both a chairside dental assistant and a secretarial assistant
C. Edmund Kells and His “Working Unit”

Hazel O. Torres and Ann Ehrlich

- Coauthored *Modern Dental Assisting* in 1976
- Became the first major textbook written by dental assistants for dental assistants
- The combination of Ehrlich’s journalistic abilities and Torres’ clinical expertise created the foundation for a dental assisting textbook that would set the standard in dental assisting education for years to come
History of Dental Hygiene

- Irene Newman was the first person to be trained as a dental hygienist in Bridgeport, Connecticut, in the early 1900s.
- A dentist, Alfred C. Fones, believed women could be trained to provide preventive services, allowing more time for the dentist to perform more complex procedures.
- Dr. Fones opened the first school for dental hygienists in 1913.
- The school exists today as the Fones School of Dental Hygiene, University of Bridgeport.
Dental Hygienist Working in a Standing Position

Courtesy Fr. Edward J. Dowling, S.J. Marine Historical Collection, University of Detroit, Mercy, Detroit, MI.
Dental Accreditation

- By 1900 the profession of dentistry had become well established and dental schools were being developed across the country.
- The educational requirements for dentists, dental hygienists, and dental assistants have increased dramatically over the years.
- Today the Commission on Dental Accreditation (CODA) of the American Dental Association sets standards and accredits dental education programs.
- Accreditation assures the students, public, and profession that a program meets high standards.
Dental Students Treat Patients in the Early 1900s

Courtesy School of Dentistry, University of California San Francisco.
Modern Dental Assisting Students
National Museum of Dentistry

- The Dr. Samuel D. Harris National Museum of Dentistry is an affiliate of the Smithsonian Institution
- It is built on the grounds of the Baltimore College of Dental Surgery, the world’s first dental college
- The museum provides many interactive exhibits, historic artifacts, and engaging educational programs
National Museum of Dentistry (Cont.)

- Visitors learn about the heritage and future of dentistry, achievements of dental professionals, and the importance of oral health in a healthy life.
- For more information, visit the museum’s Web site at http://www.dentalmuseum.org/
The Samuel D. Harris National Museum of Dentistry

Courtesy National Museum of Dentistry, Baltimore, MD.
Questions?