Introduction to Dentistry and the Dental Assistant

DENTAL HISTORY

Introduction

Welcome! You're about to embark on a course of study that will lead you to an exciting career. As you prepare to become a dental assistant, the first step is to learn about the history of dentistry. You'll learn about the "greats" of dental history and the significant events that have shaped today's dental profession.

Early Times

The history of dentistry dates back thousands of years to ancient civilizations. Archeologists have been able to date dentistry as far back as 3000 B.C. One example of early dental care is found in human skulls that show signs of various forms of tooth replacement as well as other dental procedures. In addition to actual remains, scientists have discovered dental tools such as forceps and dental picks. It's interesting when we realize that many of the designs of these ancient artifacts are still used in instruments today. In many civilizations such as those of the Egyptians, Phoenicians, Greeks, Chinese, and Romans, there were designated healers who experimented in the treatment of dental ailments. Let's take a closer look at these ancient healers and the contributions they made to the world of dentistry.

The Egyptians

One of the greatest civilizations of ancient times was that of ancient Egypt. The ancient Egyptians excelled in many areas of science, one of these being dentistry (Figure 1). Historians have been able to determine that one of the earliest dentists in ancient Egypt was Hesi-Re, who lived about 2700 B.C. It's felt that he was one of the greatest scientists of his time to be solely concerned with the treatment of dental pain.

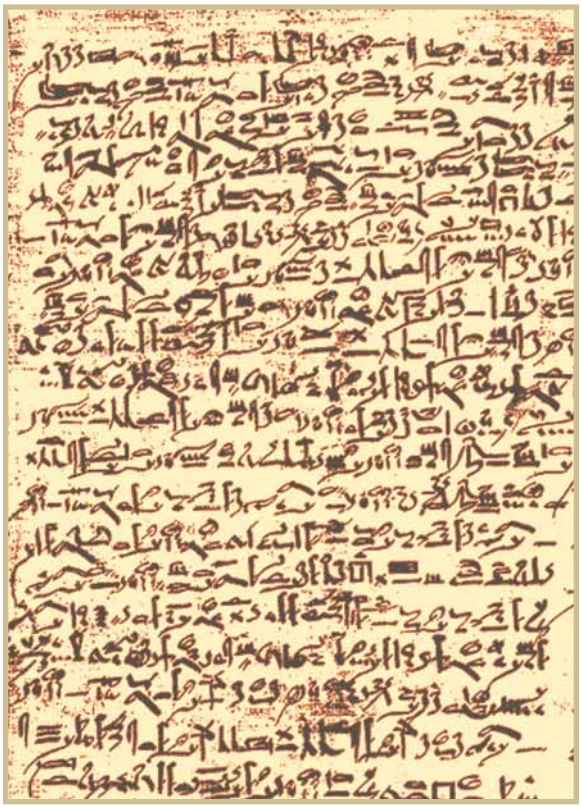


Figure 1—As evidenced by this papyrus scroll filled with dental markings, the Egyptians were among the first civilizations to practice dentistry. (Courtesy of the Smithsonian Institution, NMAH/ Medical Sciences)

It's believed that the Egyptians experienced all of the major dental diseases, including *caries* (cavities) and *periodontal* (gum) disease. However, they also suffered from rather unique types of dental problems due to their culture. The basic diet of the Egyptians consisted mainly of breads and plants. The bread was made of grains that were ground on rough stones. This method caused small pieces of stones to become incorporated into the bread dough. Unfortunately, they had no means of extracting these stones and they were baked into the bread. This produced a very coarse bread. In addition, since the area in which the Egyptians lived was very sandy, the plants they ate were often gritty. The combination

of these two factors caused extensive wear and *attrition* (grinding down) of their teeth, leading to problems such as nerve exposure and *abscesses* (tooth infections).

The dental work available to the ancient Egyptians mainly consisted of extractions and management of dental abscesses. They didn't put a high priority on either oral hygiene or preventive care. Archeologists have never located any type of a toothbrush or dental cleaning device at an Egyptian site. Their main concern appears to have been the treatment of ailments after the onset of disease.

It's also interesting to discover that the Egyptians seemed to place more emphasis on dental care after death. Historians have learned that the replacement of teeth by artificial means seemed to occur only after death. The Egyptians mummified their corpses. However, before this was done, the body was made to be as intact as possible, including the replacement of missing teeth. They believed that this ritual helped to prepare the person for the afterlife.

The Phoenicians

The Phoenicians were an ancient civilization who occupied the area known today as Syria and Lebanon. Theirs was a culture that consisted mainly of traders. These ancient seamen traveled the Mediterranean Basin, gaining knowledge of technologies such as dentistry.

The beginnings of several dental technologies can be found in the Phoenician civilization. Much of their dental knowledge was influenced by their contemporaries, the Egyptians. One such example is in a treatment of periodontal disease. The Egyptians used a technique for treating teeth affected by periodontal disease where the mobile teeth were *splinted* (fixed together). The Phoenicians took this technique and refined it. Skulls have been found in archeological digs that demonstrate periodontally compromised teeth, which have been splinted with gold wire. This technique used by the Phoenicians isn't unlike the techniques preferred by some dentists today.

The Phoenicians also experimented in bridgework. Several examples of fixed bridgework have been found in skulls unearthed during archeological digs. Carved-ivory false teeth were attached to natural teeth by thin gold wire (Figure 2). The Phoenicians' dental knowledge was passed on to other ancient civilizations, thus making them a major factor in the advancement of dental awareness and technology.

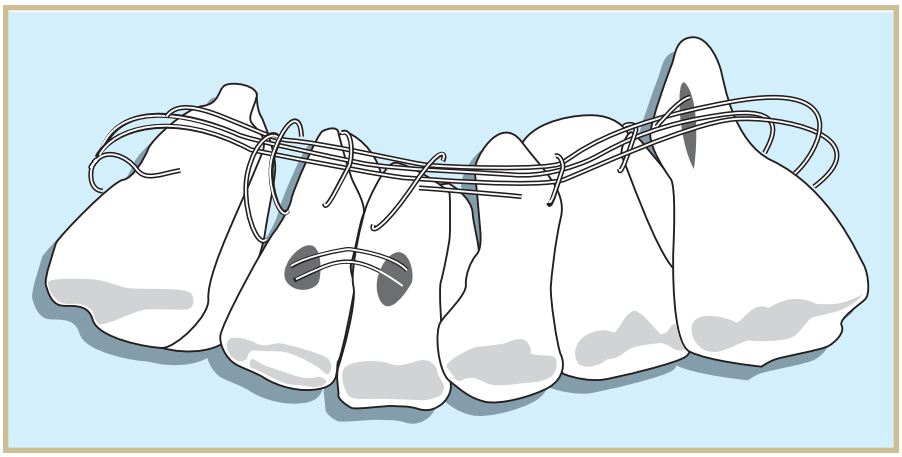


FIGURE 2—A Phoenician Experiment in Bridgework

The Greeks

The ancient Greeks lived and flourished in an age of discovery. It was during the time of this civilization that many advancements were made in the field of medicine. The earliest of these advancements occurred in the fifth century B.C. A medical school located on the Isle of Cos and Cnidus was the centerpiece of discovery at that time.

The Greeks worshipped a variety of gods. Much of the medicine that was practiced at this time was based on the worship of Asclepius, the Greek god of healing and medicine. The manner in which a toothache was treated was also based on this worship. A patient with a toothache was brought to a priest for medical treatment. The first phase of the treatment was a form of relaxation. The patient was given a sleep-inducing potion that helped to bring him or her into a state of relaxation. The priest would visit the patient while he or she was in this semiwakeful sleep. He would instruct the patient on a course of treatment. If the treatment was successful, the patient would have to make some type of tribute to the healing temple. The tribute generally took the form of

stone tablets carved in the shape of the afflicted body part, in this case a tooth. The tablets would have writing carved into them with words praising Asclepius. Numerous stones carved in the shape of teeth have been found at archeological digs at ancient temples.

Hippocrates, widely considered the father of modern medicine, performed research and wrote books about maladies of the teeth and mouth. He believed that all dental problems were related to a natural inherited weakness of the body. He was against the use of extractions as a treatment unless a tooth was loose and, therefore, unable to be saved. *Carious* (decayed) teeth, he thought, should be treated symptomatically and not removed.

Another famous Greek physician named Claudius Galen, living between A.D. 120 and A.D. 199, is best known for his writings on medical advances during his era. Part of his medical writing included information on dentistry and dental anatomy. Galen documented in his writings that teeth are made of bone. It was his belief that, since teeth are exposed, they must contain nerves within their structure. Today, we know this theory is correct.

The Chinese

Ancient China introduced many innovations to the field of dentistry. The Chinese developed several methods of treating tooth disease, many years before they were used in western European countries. For example, they began treating toothaches with arsenic about A.D. 1000. They're also noted for using silver *amalgam* (a metal mixture) for filling teeth.

The Chinese were also very advanced in their observation of the oral cavity. Dentistry is discussed in an ancient work called the *Canon of Medicine* (compiled between 476-221 B.C.), which has a section dedicated specifically to *mastication* (chewing) and *deglutition* (swallowing). The Chinese were also interested in systemic diseases and their connection to oral manifestations. For example, they recognized that prior to the development of measles, white spots would appear in a person's oral cavity.

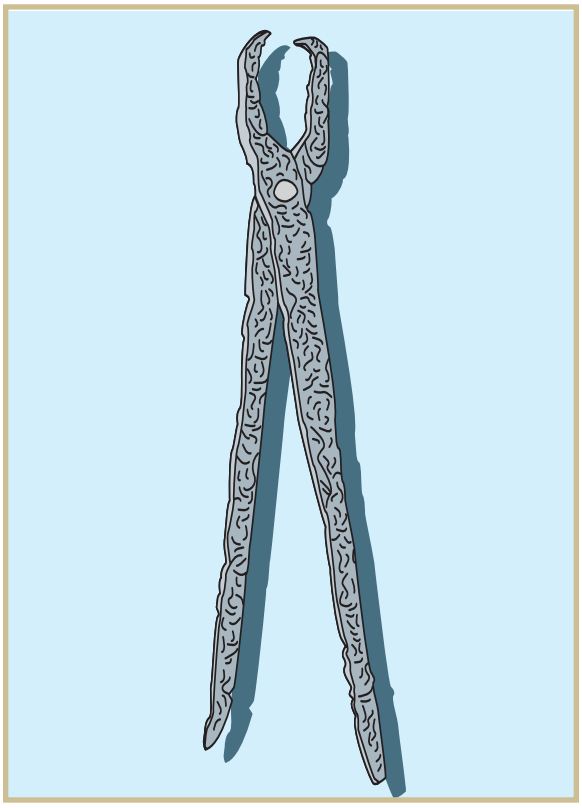
Scientists have discovered many ancient Chinese writings regarding abscesses, tooth extraction, and the instruments used in dentistry. The Chinese based many treatments for abscesses on scientific observation. Finally, Chinese surgeons delved extensively into surgical treatments of the oral cavity. For example, there's written documentation regarding tumor removal and surgical repair of damage due to *trauma* (injury). They also dealt extensively with early repair of *cleft palates* (abnormal openings in the roof of the mouth) and other *congenital* (birth) defects.

The Romans

The writings of ancient Roman scientists and scholars are an excellent source for information relating to the lifestyles of ancient times (Figure 3). Not only did they write about their own discoveries and culture, they wrote about those of other ancient civilizations.

Aulus Cornelius Celsus was a Roman scholar who lived during about A.D. 30. He wrote a book called *On Medicine,* which is considered to be one of the best medical works of its time.

FIGURE 3—An Example of a Roman Dental Instrument



Celsus wrote on several areas of dentistry. One subject of interest to him was in the induction of sleep for patients who suffered from toothaches. He wrote quite a bit on the treatment of pain from dental abscesses. The writings of Celsus also documented the first recognized cases of orthodontic treatment, accomplished through the use of appliances and finger pressure.

The Middle Ages

There were a few notable discoveries during the Middle Ages. One of the most prominent was by a physician named Scrapion, who lived during the tenth century. This physician, through his research, accurately described the number of roots found on particular teeth. He hypothesized correctly why teeth contain a different number of roots: he believed that lower molars only required two roots due to their strong jaw support. He also noted that, in contrast, upper molars required three roots as they have less jaw support.

Another notable figure in dentistry during the Middle Ages was Abulcasis, who lived in Spain between 936 and 1013. He wrote many works on the necessity of oral hygiene. These works emphasized the importance of cleaning teeth and the consequences of not doing so. Abulcasis also wrote a list of rules for completing dental extractions, including his opinion that any tooth extraction should be done only as a last resort. He describes methods of transplanting teeth and using gold wires to support loose teeth.

There's little documentation of any advances in the dental field during the rest of the Middle Ages. It wasn't until the dawn of the Renaissance that medical science flourished. It was during this time that the study of dentistry became a separate science among the prestigious scientists of the day.

The Renaissance

The Renaissance was a time of rediscovery and technological advancement. Methods of printing information advanced as movable type became available, thus making it easier than ever before to record and spread knowledge. Scholars were now able to share their discoveries through the printed word.

Many great scientists of medicine emerged during this period. One of the most noted was Andreas Vesalius (1514–1564). His works were so far advanced for his time that he's considered the father of modern anatomy. His main contribution to the field of dentistry is in mastication. He discovered that teeth all have a different pattern of bite, called *occlusion*.

A French contemporary of Vesalius was Ambroise Paré, who's considered to be the father of modern surgery. In addition to his other accomplishments, Paré made many advancements in the study of dentistry, especially with regard to reconstruction. He produced artificial teeth to replace those lost due to trauma and periodontal disease. He's also known for his creation of the first fabricated *obturator,* a device used to close the opening left by a cleft palate. A *cleft palate* is a congenital abnormality that can extend into the patient's nasal sinus, causing difficulties in eating and swallowing. Paré wrote extensively on tooth extractions and methods of tooth reimplantation after a tooth has been *evulsed* (torn away) by acute trauma.

FIGURE 4—Pierre Fauchard

It was between 1650 and 1800 that the science of modern dentistry became established. Among the leaders of this advancement, during the early to mid-1700s, was Pierre Fauchard (Figure 4). His discoveries earned him the title of the "Father of Modern Dentistry." Even today, his writings are considered to be some of the most important publications in dentistry.

Fauchard's writings were quite involved for his time, including detailed descriptions of treatment techniques and drawings and descriptions of instruments. It was his opinion that dentists should be recognized as specialists separate from medical doctors, and should hold the title *surgeon dentists.* This title is still used in France today.

Fauchard's interests included all facets of dentistry. In fact, he was the first to contradict Galen's theory of "toothworm" (the idea that cavities are caused by toothworms). He believed that cavities were formed by physical actions rather than the presence of toothworm. He emphasized the importance of dental hygiene. He also wrote about his experiments with filling cavities with tin or lead.

Fauchard fabricated several types of tooth replacement devices. He made bridges using gold wire and ivory teeth for limited tooth replacement. He created designs for full dentures using gold, ivory teeth, and springs for retention. He also experimented with the replacement of traumatically evulsed teeth.

A scientist named John Hunter took the beginnings of the practice of tooth replacement from Fauchard and built upon it. Hunter resided in Scotland in the 1700s and wrote several publications on all facets of dentistry. However, his greatest contributions were in tooth replacement.

Hunter received his dental training and anatomy through the assistance of "resurrectionists," who were basically grave robbers. Hunter, along with these men, extracted teeth from unearthed *cadavers* (bodies) for his studies. He was able to use what he learned from the cadavers and applied this knowledge to living human beings. He successfully transplanted teeth from one human to another. This procedure, however, wasn't pursued due to two significant factors. First, there was the risk of the spread of disease in transferring a tooth from one person to another. Secondly, at this time it was becoming quite fashionable to wear false teeth. Figure 5 shows teeth made from the tusk of a hippopotamus by Dr. John Greenwood, George Washington's dentist and the son of Isaac Greenwood, the first native-born American dentist.

Pioneers of Dentistry

John Baker, M.D.

John Baker was one of the first accomplished dentists to migrate to colonial America, in the early 1760s. He became well known in Boston, Massachusetts, where he maintained his dental practice for many years. One of his pupils in Boston was Paul Revere.

FIGURE 5—George Washington's Dentures
(Courtesy of the Smithsonian Institution, NMAH/ Medical Sciences)

Baker worked extensively at building his dental practice. He traveled from Boston to New York and Philadelphia, and used the newspaper to market himself. He is credited with the technique of using gold to fill teeth. At the time of his death, John Baker had attained his goal of becoming a prominent dentist. His practice was well known, as he provided care for several distinguished citizens, including the first American president, George Washington.

FIGURE 6—Paul Revere is also famous in dental history.

Paul Revere

Paul Revere is best known for his famous midnight ride to warn the American colonists of the impending British invasion. He's also known for his talented work as a silversmith (Figure 6). But few people realize that he was also quite knowledgeable in the field of dentistry. Revere limited most of his dental work to *prosthetics* (replacement devices). He made both dentures and prosthetic bridges for his patients.

One of Revere's most remarkable dental accomplishments occurred after the Battle of Bunker Hill. At that time, a revolutionary and physician by the name of Joseph Warren was killed in battle. His body was hastily buried along with other rebels, and was later exhumed for identification purposes. The identification of Dr. Warren was made possible by the bridgework he was wearing, which was made by Paul Revere. This was the first time that an identification was made through the use of forensic dentistry.

John Greenwood

John Greenwood was a dentist who practiced in New York during the 1780s. He was an avid believer in the importance of daily oral hygiene. He surmised that periodontal disease was caused by buildup around the teeth. Therefore, he stressed to his patients the importance of daily oral care, beginning at a very early age and continuing throughout one's lifetime.

Lucy Hobbs Taylor

Lucy Hobbs Taylor is distinguished as being the first woman to earn a doctorate in dentistry (Figure 7). She began her dental career in the 1860s. After being refused entry into dental school, she studied privately with a professor of dental surgery. After practicing successfully for several years, she was admitted as a member of the Iowa State Dental Society. Soon after, she earned her degree from the Ohio College of Dental Surgery. She continued her practice for more than 20 years.

FIGURE 7—Lucy Hobbs Taylor was the first woman to graduate from an accredited dental school. (Courtesy of the Kansas City Historical Society)

G. V. Black

Greene V. Black learned his dental skills from his brother, a medical surgeon, and from several prominent dentists in the mid 1800s. He perfected his skills and progressed rapidly in his practice.

Black is best known for his advancements in the organized dental *operatory* (exam and treatment room) (Figure 8). He shared his achievements through his teachings at schools throughout Illinois, his home state. Eventually, he became the dean of Northwestern University Dental School. Black's research covered many important areas, including the best composition for dental amalgams. He used a method of microscopically sectioning teeth to describe the physical properties of enamel. He was able to use this knowledge to standardize cavity preparation of teeth. Among his inventions was a dental drill driven by a foot pedal, used in cavity preparation.

FIGURE 8—Dr. Black's Operatory (Courtesy of the Smithsonian Institution, NMAH/Medical Sciences)

Black became the first to teach students about an idea called "extension for preservation" in cavity preparation. Black believed that for treatment of cavities to be successful, the margin of the cavity had to be extended to the edges of the tooth to allow for proper cleaning. This usually required removing some healthy tooth structure in addition to the decayed area. This is a basic concept that is still used to some extent in dentistry today, although today's dentistry focuses more on preserving healthy tooth tissue.

Black is also noted for his development of a standardized dental terminology. Much of today's modern dentistry is based on his research. One of Black's main accomplishments was the development of the five classifications of tooth decay that are still in use today. You'll study these classifications in a later study unit.

Sir John Tomes

Sir John Tomes (Figure 9) was a dental pioneer in England during the 1800s. He completed many studies of the microscopic structures of teeth. He discovered that the main structures of the teeth *(dentin* and *enamel)* have no actual blood circulation. He also noted that the cells that give rise to the tooth structure, called *odontoblasts,* have fibers trailing from them. These fibers are named "Tomes' fibers."

FIGURE 9—Sir John Tomes helped establish a Dentists' Register, dental surgery exams, and the British Dental Association.

Wilhelm Conrad Roentgen

Wilhelm Conrad Roentgen was a scientist at the University of Wurzburg during the late 1800s (Figure 10). He made a remarkable discovery using a cathode ray and some paper coated with barium platinocyanide. He found that images formed on the paper when solid objects were passed through the ray. He called the new kind of ray an "x-ray" (also called a *Roentgen ray* in his honor). This discovery led to the development of an x-ray machine. The x-ray machine is one of the

most significant advancements in general medicine. Its use makes it possible for physicians to diagnose illnesses and conditions without using invasive surgery or radical treatments. Dentists regularly use x-rays to look for cavities in teeth. The steps that Roentgen made towards this discovery certainly make him an outstanding pioneer in dentistry.

FIGURE 10—Wilhelm Conrad Roentgen was a pioneer of x-ray technology.

C. Edmund Kells

C. Edmund Kells was a dental pioneer who lived from the mid 1800s to early 1900s. He experimented with many dental techniques and conveniences that are still used today. He was the first dentist to incorporate electricity into his office. This allowed him to use the first electric dental drill, which was developed by the S. S. White Company.

In addition to his advancements in dental instruments, Kells is noted for being the first dentist to employ a female dental assistant to assist him at chairside, mix dental materials, and maintain treatment notes.

Kells' main contribution to dentistry is in the field of dental radiology. Upon hearing of Roentgen's discovery of x-rays, Kells constructed his own x-ray machine. Using his assistants as subjects, he developed the first known dental x-ray. Interestingly, he accomplished this task just one year after Roentgen's developments.

While Kells' achievement was quite extraordinary, he unfortunately didn't realize the dangers of x-rays. He eventually developed cancer in his right hand after years of working with his x-ray equipment. He underwent many surgical procedures but eventually lost his right hand and arm. He continued to lecture on dentistry until the late 1920s when, due to the excruciating pain he experienced from his condition, he committed suicide.

Horace Wells

Horace Wells was a dentist who practiced in Connecticut during the early to mid-1800s (Figure 11). He is recognized for being the first dentist to use nitrous oxide gas as an anesthetic in his dental procedures. He discovered that people who inhaled nitrous oxide didn't appear to feel any pain. (At the time, the use of nitrous oxide in entertainment and public demonstrations was common.) Wells began using this anesthetic technique when he performed tooth extractions in his office. He also taught this system to his dental students. One of his former apprentices, William T. G. Morton, expanded on Wells' theory and developed a technique using ether for anesthesia in surgery.

FIGURE 11—Horace Wells was the first dentist to use nitrous oxide gas.

The Amalgam War

Amalgam is one of the most basic substances used in dentistry. It's a composite of mercury and alloys including silver, tin, nickel, and copper. Mercury is a hazardous substance that must be handled with caution.

Amalgam was introduced by Auguste Traveau in the 1820s. He demonstrated the use of this silver-based paste as a tooth-filling material. However, due to mechanical problems with the necessary setting time and expansion of the material, it didn't gain much popularity among dentists.

The use of amalgam in the United States is first noted in the early 1830s. The Crawcour brothers introduced amalgam to New York City in 1833, calling it "Royal Mineral Succedaneum." Unfortunately, the Crawcours were untrained, unethical, and unscrupulous. As dentists, they tended to do things that today would be considered malpractice—such as laying the amalgam filling over the cavity without removing the decay. A controversy developed regarding their methods that lingered even after they had left the dental scene. Many of the adverse effects that were suffered by their patients were blamed on the amalgam used in the fillings.

The "Amalgam War" became so heated that the use of amalgam was considered grounds for malpractice. It wasn't until much later, after amalgam was significantly improved, that its use became acceptable.

Even today, you'll hear about controversies over the use of mercury in dental restoration. Studies in the 1980s found that some mercury does leach out of dental fillings, although usually in such small amounts that it causes no ill effects. These findings have reheated the debate about amalgam versus other filling materials. Since mercury is a component of amalgam, you'll learn proper handling techniques for this dental material later in the program.

CAREER OPPORTUNITIES

General Office

As you prepare to become a dental assistant, keep in mind that there are many career opportunities available. The dental assistant becomes an integral part of the dental team in a variety of settings.

There are two types of general dental offices: a private office and a group practice.

Private office. This type of office usually consists of one general dentist with an *auxiliary staff* (members of the dental team).

In such a setting, the dental assistant is responsible for providing assistance to the dentist in preventive and restorative dental procedures.

Group practice. A group practice is formed when one or more partners make up the dental office. Often, the partners will also include one or more associates in the practice.

A dental assistant working in this setting must be attuned to the different working practices of each dentist. It's his or her function to fit into the dentist's mode of work in order to provide the necessary assistance. Each dentist will have his or her own techniques when working, and the dental assistant must be aware of these in order to perform his or her duties effectively. It's important to remember that the ultimate goal is to provide the best possible care to the patient. The dental assistant plays a major role in attaining this goal.

Office Specialties

You may want to concentrate your skills in a particular type of dental specialty. There are many types of dental specialties, which we'll discuss briefly.

Endodontic Office

A dentist in an *endodontic* office is a specialist who deals primarily with teeth that develop a type of infection. The major procedures performed in this office are root canals and their *auxiliary* (related) functions. The role of the dental assistant in this office is unique. The assistant not only provides assistance to the dentist, but also must possess good patient management skills. A majority of the patients entering the endodontic office are experiencing some form of dental discomfort. In addition, they may be anxious because their problem requires the expertise of a specialist. It's the expectation of the dentist that the assistant will be able to provide some assurance to the patient upon entering the operatory.

Pediatric (Pedodontic) Dental Office

The dental assistant working in a pediatric (sometimes called *pedodontic*) dental office will assist with the treatment of children aged 2–13, although older teenagers and young adults may also be seen. The assistant in this setting works with a unique patient group. It's necessary for the assistant to be able to feel comfortable in this office, as the young patient often requires a different style of management. To operate in a pediatric dental office the assistant must be prepared to handle a child who may be frightened, crying, or difficult to manage. The young patient may not be cooperative about the procedure to be done. In such situations, the assistant must use all his or her management skills to effectively assist the dentist.

Periodontic Office

The *periodontist* is a specialist concerned with the supporting tissues of the teeth. This involves treatment of the gums, the *palate* (the roof of the mouth), and all oral *mucosa* (mucous membranes) and soft tissues. The patient referred to the periodontic office would require preventive dental work as well as some surgical procedures. The dental assistant must be aware of periodontal gum disease and its treatments in order to provide effective aid to the dentist.

Prosthodontic Office

The patient who requires the prosthetic replacement of missing teeth would be referred to a *prosthodontist.* The specialist in this office would treat the patient with an array of prosthetic devices, including removable full or partial dentures, crowns, bridges, or dental implants. This can be a unique and interesting office in which the dental assistant is a very important part of the dental team. Once again, the assistant must be aware of the special needs of the patients in order to effectively aid the dentist.

Orthodontic Office

The specialist in the *orthodontic* office is concerned with the correction of *malocclusion* (teeth that don't come together properly), which calls for the straightening of teeth for cosmetic and functional purposes. The patient group in this type of office was, at one time, mainly made up of adolescents. However, in recent times, more and more adults are seeking the assistance of the orthodontist for both cosmetic and functional treatment. Therefore, the dental assistant in this office must be prepared to work with both young and adult patients and assist in meeting the needs of each.

Oral Surgery Office

The dental assistant working in an oral surgeon's office would assist the dentist in the treatment of *oral pathology* (diseases of the mouth and adjacent regions). The oral surgeon is concerned with a wide range of dental procedures, including extractions, the reduction of fractures, the diagnosis of tumors, and other oral pathologies. While it can be a more intense setting for the dental assistant, it's nonetheless interesting, and the assistant's role is vital.

Office Locations

You'll have the opportunity to work in dental offices in a variety of settings and locations. Which of the following unique situations would appeal to you?

Hospital Setting

A dentist may treat a patient who is currently receiving care in a community hospital. This may appear to be an unusual setting for a dentist to see a patient. However, this type of visit can be critical for a patient, as he or she is usually in need of emergency treatment. If a hospital patient is experiencing some oral infection or acute trauma, it can interfere with the medical treatment being received. While the hospital setting is unique, it can also provide a very challenging career opportunity for the dentist and dental assistant.

Rural Health Setting

Rural health clinics are generally operated by some government agency, either federal, state, or local in origin. Dental care, in such a setting, consists of two facets—preventive dentistry and clinical care. The role of the dental assistant in such a clinic is mainly to provide *chairside aid* (help to the dentist during procedures). However, another responsibility of the assistant is to provide education to patients in regard to the promotion of good oral hygiene and the practice of preventive dentistry.

Prisons

The provision of dental care in a correctional institution can be a unique career opportunity. Some may feel uncomfortable in this setting; however, the dental care that an *inmate* (prisoner) would require is comparable to any other patient. The assistant would be responsible for providing chairside assistance to the dentist. Another important function is in providing oral hygiene education to the inmates. The dental assistant would teach these patients about preventive dental care and the importance of daily care of the teeth and gums.

Dental Health Schools

The dental assistant who works in a school setting receives a dual benefit. Working in such a setting offers an excellent learning atmosphere, as well as providing a means to meet the dental needs of patients. It's possible for the assistant to

be exposed to a variety of dental specializations as he or she has the opportunity to work in several of the dental departments. It's certainly a rewarding atmosphere where the dental assistant may discover a specialty of dentistry in which he or she would like to pursue a career.

You've just studied about the significant events that have shaped today's dental profession and the various types of office specialties. Before you go on to the next topic, please take the time to complete *Self-Check 1.*

Self-Check 1

At the end of each section of *Introduction to Dentistry and the Dental Assistant*, you'll be asked to pause and check your understanding of what you've just read by completing a "Self-Check" exercise. Answering these questions will help you review what you've studied so far. Please complete *Self-Check 1* now.

Answer the following.

1. Dental history dates back to ancient civilizations. Who are some of the early contributors to the science of dentistry?

   _____

   _____

2. Who wrote about the first orthodontic treatment?

   _____

3. Who started the Amalgam War? Why was it such a controversial subject?

   _____

   _____

4. What general types of dental offices are available from which the dental assistant may choose employment?

   _____

   _____

5. What are some types of offices in which you may choose to work as a dental assistant?

   _____

   _____

6. What would a dentist and dental assistant do in a hospital setting?

   _____

   _____

Check your answers with those on page 43.