THE BALTIMORE COLLEGE OF
DENTAL SURGERY

HERITAGE AND HISTORY
Gentlemen, the profession for which you are preparing is honourable; it is useful; it is one that will enable you to be serviceable to your fellows, to relieve much of human pain, and to mitigate many mortal woes.

—Dr. Chapin A. Harris, Dean
Introductory Lecture
November 3, 1840
THE BALTIMORE COLLEGE OF DENTAL SURGERY

HERITAGE AND HISTORY
Foreword

The Baltimore College of Dental Surgery, Dental School, University of Maryland at Baltimore, occupies an important and unique place in the heritage of dentistry in that it represents the first effort in history to offer institutional dental education to those anticipating the practice of dentistry. Since the first commencement exercises in March, 1841, the Baltimore College of Dental Surgery has graduated more than 10,000 dentists to serve oral health care needs in communities in Maryland, throughout the nation and in many nations abroad.

In the pages that follow we share with you some of the highlights in the fascinating story of the practice of dentistry through the ages and trace the significant events that culminated in the establishment of formal dental education, the first major branch of higher education to originate in America. Our narrative concludes with a genealogy of the Baltimore College of Dental Surgery, Dental School, University of Maryland at Baltimore. From this first program of dental education have evolved the exacting educational standards which are the foundation of professional dentistry today.

Errol L. Reese
Dean
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Etching by Jan Both depicting medieval dentistry, from painting by Andrew Both
HERITAGE

the past was prologue . . . .
Dentistry in the Ancient World

Although dentistry did not develop as an organized profession until the middle of the nineteenth century, there have been references to the teeth and to the treatment of oral diseases from the beginning of recorded history. Ancient Chinese manuscripts described almost all the dental diseases known today and detailed a variety of treatments for different kinds of toothache, including acupuncture, extraction, mouthwashes (a popular one, the urine of a child) and arsenic; and various remedies to destroy the worms thought to make holes in the teeth. Egyptians had developed methods of treatment for painful dental conditions before 1550 B.C. and, by the fifth century B.C., were practicing dentistry as a specialized field of medicine.

The earliest known bridge-work—a restoration in which two replacement teeth were fastened together with gold wire ligatures—was discovered in one of the most ancient tombs in the Phoenician city of Sidon, which flourished between the eleventh and fourth centuries B.C. A number of appliances for supporting teeth and replacing missing teeth, discovered in Etruscan ruins dating from 1000 to 400 B.C., provide evidence that the art of restorative dentistry was relatively advanced in Italy long before the days of the Roman Empire.

Although no specific references to dentistry as a separate profession have been found among the writings of the early Greeks, Hippocrates (460-355 B.C.) described extraction (the earliest known record of a dental operation) and treatment of diseases and disorders of the teeth, jaws and oral cavity. Aristotle, writing in the fourth century B.C., described the mechanical advantage of using forceps for extraction.
A Roman physician, Cornelius Celsus, thoroughly recorded dental practices of the first century A.D. in the most extensive documentation of dentistry as of that time and for the next several hundred years. These practices included a method for straightening teeth, the use of cautery for periodontal disease, procedures for removing stains on teeth and lotions for astringent constriction of the gums to tighten loosened teeth. In the second century the most famous Roman physician, Galen, made detailed studies of dental anatomy and was the first to recognize the presence of pulp within the teeth.

Restorative dentistry was well developed at the height of the Roman Empire. Replacement teeth were fastened to adjoining teeth with gold wires; gold crowns were used for retention and removable artificial teeth were made from bone and ivory. Convinced of the importance of good teeth, many Roman patricians employed special slaves whose duty it was to clean teeth with toothpicks and a variety of dentifrices.

With the growth of Christianity, emphasis shifted from scientific advances and concern for the physical body to spiritual matters. Cleaning teeth was considered a sign of vanity by many medieval Christians. Intercession for relief of pain from dental disease was sought from the Patron Saint of Dentistry, St. Apollonia, a Christian martyr who had been tortured by having all her teeth pulled.

Replicas of ancient dental appliances: Ancient Greek bridge: teeth bound in gold as recommended by Hippocrates; Etruscan appliance for supporting two teeth

Dental cabinet made by Captain Vincenzo Guerini, Napoli, Italy; noted dental historian

Woodcut from the Weltchronik of 1497
Medieval Dentistry

With the fall of the Roman Empire in 476 A.D. and the beginning of the Dark Ages in Europe, the center of culture and science shifted to Arabia. Arabian physicians practiced most of the methods of treatment developed by the Greeks and Romans, although they had an aversion to extraction and preferred using drugs to strengthen loosened teeth or to cause badly diseased teeth to fall out. Medical writers stressed the importance of cleaning the teeth and recommended the use of a variety of dentifrices and toothbrushes made by beating a small polishing stick at one end to separate the fibers. In the ninth century an Arabian physician, Rhazes, studied dental caries and recommended filling cavities with a cement made of mastic and alum. The Arabian physician who had the greatest influence on dentistry was Abulcasis, whose book on surgery, written in the latter part of the eleventh century, included the earliest illustrations of dental instruments. Abulcasis meticulously described surgical procedures in the oral cavity and was the first to write about the treatment of deformities of the mouth and dental arches. By stressing the need for thorough dental prophylaxis and describing methods for removal of dental calculus, Abulcasis laid the groundwork for modern periodontology.

During the Dark Ages in Europe, when monasteries were the only repository of scientific knowledge and culture, monks became the medical practitioners of the period. When the Pope

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Early toothbrush with intricately carved ivory handle

Abulcasis' illustration of dental instruments for shaking the teeth (2); extracting loosened teeth (3); removing portions of bone, jaw and roots (4,5); cauterizing (6); and filing (7)

Line drawing of pre-Columbian mural (c. 400-1000 A.D.) depicting dental treatment
ruled that any operation involving the shedding of blood was incompatible with the priestly office, the practice of surgery was taken over by the barbers who had assisted monks in surgical operations. Guilds of barber-surgeons were prevalent and boards of examiners were established in England and France.

Although some physicians would extract teeth, most considered it beneath their dignity and left it to the barbers. A small group known as the Guild of Surgeons developed in London, and there was considerable rivalry between the barbers and the surgeons until 1540, when these two groups combined with the agreement that surgeons could not practice barbering and barbers could not perform any surgical operation except the extraction of teeth. During this same period another group of practitioners known as “tooth drawers” began to appear throughout Europe. These vagabonds practiced their trade in the marketplace; while some were quite skillful, many were charlatans.

As European society began to stabilize in the thirteenth and fourteenth centuries, universities with medical faculties were founded and more scientific writing was published. It is apparent from the treatises on dentistry that dental knowledge and practices were much the same in fourteenth century Europe as in Arabia two and one-half centuries earlier.

Engraved handbill, probably German, 1756-1800, illustrating two barbers at work: one is extracting a tooth with a toothkey while the other shaves his customer.

The Toothpuller by Luigi Guidotti (c. 1600)

Treatment of a Dislocated Jaw, artist unknown, from the thirteenth century manuscript of Da Parma’s La chirurgia. The treatment illustrated was that recommended by Hippocrates for fractures and dislocations of the jaw.
The Beginning of Modern Dentistry

textbooks, the microscope and porcelain teeth

The development of the art of printing led to the wider dissemination of knowledge. The publication in 1530 of a German book, Zwei Artzney, the first devoted exclusively to the subject of dentistry, was significant because the text was written in the vernacular rather than Latin, making dental knowledge available to common practitioners who were not Latin scholars. By the end of the sixteenth century some twenty different texts on the subject of dentistry had been printed.

The most important development in the seventeenth century was the invention of the microscope and its application to scientific investigation. It was now possible to study the histology of the teeth and the organisms inhabiting the mouth.

The founder of modern scientific dentistry was Pierre Fauchard, who in 1728 published his celebrated book, Le Chirurgien Dentiste, in which the entire field of scientific and practical dental knowledge was systematized and coordinated to instruct those preparing to practice dentistry. Fauchard, whose book exerted a powerful influence on the profession for many years, is referred to as the "Father of Dentistry."

The most significant development in restorative dentistry was the invention of mineral teeth. In 1774 a chemist, Duchateau, suggested the idea of mineral teeth to a dentist, Dubois de Chemant, of Paris; in 1789, after extensive experimentation, de Chemant patented his mineral teeth. Until this time dental restorations (using either human teeth or teeth carved from ivory) required exceptional mechanical skill and tedious labor; dentures had been a luxury only the rich could afford. Nonporous porcelain was superior to ivory in the mouth; molding and baking the paste was easier than carving ivory; and it was possible to produce well fitting dentures with attractive appearance. In 1808 an Italian, Fonzi, became the first to make individual artificial teeth from porcelain.
Dentistry in America

immigrants, a foot drill and dentures by mail

There is little record of the practice of dentistry in America before the middle of the seventeenth century. Although the Pilgrims brought three barber-surgeons to Plymouth in 1636, the only one whose name has been preserved, William Dinly, died a few years later. The next mention of any dental service in the colonies was the advertisement of a tooth drawer, James Mills, in a New York paper in 1734.

One of the first trained dentists to devote full time to the practice of dentistry in America was Robert Wooffendale, a surgeon dentist who had emigrated from England in 1766. Wooffendale performed operations on the teeth, gums, sockets and palate, and also made artificial teeth. The first set of dentures in America was made by Wooffendale for William Wolton of New York.

The first well-known American surgeon dentist was John Baker, who had practiced in various cities in Europe before establishing a practice in Boston about 1752. There he taught Paul Revere the art of constructing and repairing dentures. Baker later traveled to New York, Philadelphia, Baltimore, Annapolis and Williamsburg and for a number of years was George Washington’s dentist.

In Maryland, Baker probably gave some dental instruction to Benjamin Fendall, reportedly the first medically educated dentist born in this country. Fendall devoted himself to the practice of dentistry from 1773 to 1808. His advertisements included information about the value of dental health and the effect of bad teeth on personal well-being. Fendall, one of whose patients was Martha Washington, was the first dentist of record to serve American troops during the Revolution.

Dental extraction keys. Such keys were used from about 1750 until the late 1800’s.

Dentifrice imported from London and made by W. Spence, dentist to King George III.

Mouthwash used to treat dental disease, early 1900’s.
John Greenwood was the most famous and distinguished eighteenth-century American dentist. Greenwood was highly skilled in constructing artificial teeth, which he supplied by mail to those who sent him wax impressions of the vacant spaces. He also transplanted natural teeth and engaged in the care of children's teeth. Greenwood was the first to use the foot drill, which he constructed for his grandmother's spinning wheel; and he was renowned as George Washington's favorite dentist. The dentures he constructed for Washington, which have ivory teeth mounted to a gold base, were donated to the Baltimore College of Dental Surgery and are on display at the Smithsonian Institution in Washington, D.C.

During and after the Revolution, dentists continued to immigrate to America. Richard Cort Skinner, who came from England, was the first dentist in America to hold an appointment to a medical clinic, the Dispensary of the City of New York. He wrote the first American book on dentistry, *A Treatise on the Human Teeth*, copyrighted in 1801 but distributed to his patients in Baltimore as early as 1794.

By the end of the eighteenth century, although dentistry was not an organized profession, many advances in its practice had been made in the new nation. There was interest in operative dentistry, prosthodontics, oral surgery, children's dentistry, orthodontics and the treatment of dental diseases. Efforts were made to inform people about the importance of dental care and to acquaint them with the knowledge and skills of the surgeon dentists; to warn the public against quacks and charlatans; and to elevate dentistry in the public esteem through newspaper advertisements, pamphlets and books.

1840—a very good year

In colonial America, the best surgeon dentists moved periodically from one locality to another. At the end of the eighteenth century, although many of the leading dentists were locating permanently in the larger cities, respectable itinerant dentists still served the small towns. Eventually, however, few reputable itinerant dentists remained; people in outlying regions had to rely on untrained or poorly trained blacksmiths and barbers for relief of dental pain. Even where reputable dentists were available, many patients became the victims of charlatans, who advertised widely in the press.

![Ivory and gold spring dentures made for George Washington by John Greenwood](image)

![Dental instruments made by a blacksmith for his son, a physician, surgeon and dentist, c. 1835](image)

![Traveling instrument kit of the colonial dental practitioner](image)

![Advertisement from the Albany, N.Y. Argus, 1815](image)

![Painting of the itinerant dentist, who carried instruments, medications and perhaps a dental chair in his wagon. The dentist's family at times traveled with him.](image)
As long as there was no regulation of dental practice, many abused the public confidence. The first attempt at regulation occurred in Maryland. The Medical and Chirurgical Faculty of Maryland had been chartered by the state to examine and license physicians. In 1805 this regulatory function was interpreted to include dentists; thereafter any person desiring to practice dentistry in the State of Maryland was required to submit to an examination and demonstrate his qualifications. In 1810 Horace H. Hayden became one of the first dentists to receive such a license.

During this period dental education in both Europe and America was by the preceptorial method, with prominent dentists taking students into their offices to instruct them in the practice of dentistry. The first reference to formal training of this sort is a newspaper advertisement of 1787 in which Dr. John Foulke, a Philadelphia physician, offered a series of five lectures "on the Formation, Diseases and Operations of the teeth, in order to enable Country Practitioners to become useful and expert Dentists."

By the late 1830's there were in the United States about 1200 practicing dentists, only a small percentage of whom had received collegiate instruction. There was a growing awareness of a need for formal professional instruction in an institution devoted to dental education, in order to provide dentists with professional credentials and thus protect the public from unqualified practitioners. Among prominent members of the dental profession there was recognition of a need also for dissemination of dental knowledge through literature and through personal contacts with other members of the profession. The year 1840 marked the beginning of dentistry as a scientific profession, with a major achievement in each of these areas—the formation of a national organization of dentists, the publication of a national journal and the establishment of the first institution in the world devoted to education for dentistry—the Baltimore College of Dental Surgery.
Original building and seal of the Baltimore College of Dental Surgery
HISTORY

the first dental college . . . . .
EVOLUTION OF THE
Baltimore College of Dental Surgery
Dental School
University of Maryland at Baltimore

Baltimore College of Dental Surgery
founded

1873
Maryland Dental College
founded

1878
merged

Baltimore College of Dental Surgery

1882
Dental Department
University of Maryland
founded

1895
Dental Department
Baltimore Medical College
founded

1913
merged

University of Maryland

1920
merged

University of Maryland

1924
consolidated
to form

Maryland State
College of College Park

1970

Hayden-Harris Hall
The long and notable history of the Baltimore College of Dental Surgery is replete with many names of great prominence in the affairs of dentistry, but none transcends those of Horace H. Hayden and Chapin A. Harris. Together these two men were to play a leading role in establishing and promoting formal dental education.

Horace H. Hayden, born in Windsor, Connecticut in 1769, learned the trade of carpenter and architect at the age of sixteen from his father. In 1795 Hayden met John Greenwood in New York and was so impressed with Greenwood’s skills and the potential of the art of dentistry that he was determined to become a dentist. There is reason to believe that he studied dentistry for some time with John Greenwood. After practicing in New England and New York State, Hayden in 1800 came to Baltimore where he worked as an assistant to Dr. Hamilton, a prominent dentist. By 1802 Hayden had established his own practice in Baltimore. From that time until his death in 1844 he made a zealous attempt to lay the foundation for a scientific and serviceable dental profession.

Realizing that a thorough knowledge of the human system was essential to intelligent treatment of diseases of the teeth, Hayden studied anatomy, physiology and other medical sciences. He was especially interested in physiological and pathological research. In 1837 he received the honorary degree of Doctor of Medicine from the Jefferson College of Medicine in Philadelphia; in 1840 he was honored with the same degree from the University of Maryland.

Almost from the time he established his practice in Baltimore, Hayden instructed others by holding classes in dentistry in his office at night by candlelight. He felt strongly, however, that dentists—as other professionals—should receive systematic formal education. The first lectures on dentistry in the United States were delivered by Dr. Hayden at the University of Maryland School of Medicine between the years 1823 and 1825. These lectures were interrupted in 1825 by internal dissensions in the School of Medicine and, as a consequence, were discontinued. It was Dr. Hayden’s belief that dental education merited greater attention than it had been given by medicine or could be given by the preceptorial plan of dental teaching then in vogue. Since Dr. Hayden’s lectures had been interrupted at the University of Maryland, and since there was a seemingly insurmountable difficulty confronting the creation of dental departments in medical schools, the establishment of an independent dental college was undertaken.
About 1830 Dr. Chapin A. Harris, a man of unusual ability, came to Baltimore from Greenfield, Ohio to study under Hayden. Born in Pompey, New York in 1806, Harris had studied medicine in Ohio with his brother John, and had practiced medicine and dentistry for some time in Ohio. Young, aggressive, ambitious and full of energy, Harris was well suited to aid Hayden's ambition to elevate dentistry to the rank of a profession. Harris was active in founding the College, relieving Hayden, who was seventy at the time, of many of the details involved in such an endeavor.

*a charter, a faculty and anatomy in a stable loft*

The two men spent many hours in Hayden's office laying plans for the College. The degree of Doctor of Dental Surgery was decided upon. With the signatures solicited by Harris from influential citizens, application for a charter was made to the legislature. On February 1, 1840 a charter for the College was granted by the General Assembly of Maryland. The charter named as the first faculty members: Horace H. Hayden, M.D., Professor of Dental Pathology and Physiology; Chapin A. Harris, M.D., Professor of Practical Dentistry; Thomas E. Bond, Jr., M.D., Professor of Special Dental Pathology and Therapeutics; H. Willis Baxley, M.D., Professor of Special Dental Anatomy and Physiology. The first faculty meeting was held on February 3, 1840, at which time Dr. Horace H. Hayden was elected President and Dr. Chapin A. Harris, Dean. Thus was created as the foundation of the present dental profession the Baltimore College of Dental Surgery, the first dental college in the world.

At their second meeting on May 15, 1840, the faculty decided to insert an advertisement in the following newspapers and journals to recruit students for the first session: Washington Globe and National Intelligencer, Philadelphia U. S. Gazette, Louisville Journal, American Journal of Dental Science, American Journal of Medical Sciences, Maryland Medical and Surgical Journal, Baltimore American Patriot, Charleston Courier and Baltimore Pilot.

An "Annual Announcement of the Board of Visitors" with information regarding the aims of the College, curriculum, fees and requirements for graduation, was also issued at that time. The text of the Announcement included a vivid description of the conditions that had led to the establishment of a dental college:

"... the number of those professing to control these diseases of the teeth, and correct these disorders, who are competently educated Dentists, is small in proportion, to the many engaged in the practice of this profession. It has been ascertained that there are about 1200 professing Dentists in the United States; of these but a few have enjoyed the advantages of collegiate instruction in this Science. . . . "It is also a fact that many totally incompetent individuals from the humbler occupations of life, influenced either by mercenary or aspiring feelings, have, without any kind of preparation, assumed the title of Dentists, and engaged in the practice of Dental Surgery, and thus the science has been unjustly disparaged, and the profession has sustained unmerited reproach. . . . And thus imposture has been emboldened to occupy a position, arrogate pretensions, and engage in a practice, to the detriment of the community, and the injury of the deserving cultivators of this department of science.

"Regarding then the necessity of providing means of instruction, suited to the improved condition of this science, and also of securing to the public a guaranty against the impositions of the unqualified, the Legislature of Maryland have entrusted to the Faculty already named, the duty of executing its purposes, in relation thereto."
The college formally opened on November 3, 1840, with five students enrolled for the first session: Joseph Washington Clowes, New York City; Thomas Payne, New York City; Joseph B. Savier, Norfolk, Virginia; Robert Arthur, Baltimore; and R. Covington Mackall, Baltimore. During the first week introductory lectures, to which the public was invited, were delivered by each of the faculty members at the Baptist Church on Calvert Street between Lexington and Saratoga.

Lectures were given from the first Monday in November through the end of February. The charge for attending the lectures of each professor for the session was $30, with a $5 matriculation fee and a $30 diploma fee. A suitable college building was provided at 13 South Sharp Street (now Hopkins Plaza). According to Dr. Baxley: “The didactic lectures were delivered in a small room, publically situated, but the teaching of practical anatomy demanded privacy; other prudential considerations also suggested the use for that purpose of a secluded stable loft.”

examination and the first degrees

The Annual Announcement stated: “Candidates for graduation who have attended two full courses of lectures in this College, or one course in some respectable Medical College, and one in this Institution, will be subjected to a critical examination by the Faculty, and be required to defend a Thesis on some subject connected with Dental Science—they will also be required to present one or more specimens of mechanical skill in preparing and setting artificial teeth, and likewise be expected to perform certain dental operations in evidence of practical qualification; and on being found competent, they shall receive the degree of DOCTOR OF DENTAL SURGERY.”

The charter gave the faculty the option of granting this degree to students who had not attended the full two years but who “after an examination by the professors shall have been found worthy.” Two of the five students were entitled to graduate after having attended only one session, “each having defended a thesis and sustained a satisfactory examination.” The first degrees of Doctor of Dental Surgery were conferred by Dr. Hayden upon Robert Arthur and R. Covington Mackall at the first commencement on March 9, 1841. The valedictory address was delivered by Professor Bond.

The charter also authorized the faculty of the College to confer the honorary degree of Doctor of Dental Surgery “on any Dentist who may have rendered service to the science or distinguished himself in his profession.” At the end of the second commencement on February 18, 1842, honorary degrees were conferred upon eighteen prominent dentists, of whom four were foreign and fourteen American. In later years honorary degrees were conferred upon many highly qualified and reputable dentists in the United States and abroad, among them dentists from Canada, England, Scotland and France.

Emilie Foecking of Prussia, first woman graduate of the Baltimore College of Dental Surgery, 1873. Dr. Foecking practiced dentistry in Berlin.
In addition, the charter provided that any reputable dentist could apply for examination without having been a student at the College. Such candidates for degrees were required to present a thesis and specimens of mechanical work, demonstrate their operative skills on a patient and submit to oral examination by all members of the faculty. Although most of the applicants gave satisfactory evidence of their proficiency and received a diploma, some were rejected. The minutes record that "Dr. S., a practitioner of dentistry for fourteen years, was admitted to examination for the degree of D.D.S. and rejected as altogether unworthy of the honor, as he showed no acquaintance whatever with the science of dentistry, being nothing but a dental mechanic."

The Baltimore College of Dental Surgery served as a prototype for dental schools gradually established in other American cities and fabricated the pattern for modern dental education, with equal emphasis on sound knowledge of general medicine and development of the skills of practical dentistry. Through its influence in dental education and through its alumni, the Baltimore College of Dental Surgery has exerted a remarkable influence on the profession of dentistry.

Hayden and Harris: other contributions

It should be noted that the founding of conventional dental education was not the only contribution of Horace H. Hayden and Chapin A. Harris to the development of professional dentistry. Hayden has been referred to as the "Father of the American Society of Dental Surgeons," the first national association of dentists, organized in New York in 1840—more than twenty years after Hayden first began to promote his idea for such an organization. The Society, forerunner of the American Dental Association, served to bring members of the profession together in a spirit of cooperation, create a consciousness of solidarity, establish professional standards, provide opportunities for professional intercourse, stimulate scientific interests and promote improved procedures in dental practice.

Chapin A. Harris was the prime mover in the establishment in 1839 of the first dental journal, The American Journal of Dental Science. Harris also authored one of the first important American textbooks on dentistry, The Dental Art, A Practical Treatise on Dental Surgery, published in 1839; and the first dental dictionary, published in 1849.
From the time the Baltimore College of Dental Surgery was founded, both theoretical and practical instruction were provided. The facilities for practical instruction, however, were rather limited until 1846, when the College moved to a new building on Lexington Street and there established the first dental infirmary for clinical practice. As early as 1843 the College had a demonstrator of mechanical dentistry; in 1846 a demonstrator of operative dentistry was added. In 1872 the Chair of Clinical Dentistry was established and two experienced demonstrators were employed to supervise the work of students.

The Baltimore College of Dental Surgery set the pace for dental education and was widely acknowledged for its valuable role in dental and medical progress.

**Maryland Dental College**

After the Civil War an increasing number of dental schools were established throughout the United States. One of the twenty-two schools organized between 1866 and 1884 was the Maryland Dental College, chartered and opened in Baltimore in 1873. Its Dean was Richard Bayly Winder, a former Confederate Army Major, who had graduated at the age of forty from the Baltimore College of Dental Surgery, just four years earlier.

According to an article in the *Baltimore Gazette* reporting the opening of the school, the facilities included "twenty or more rooms . . . classified as reception parlors for patients, free dental infirmary (open from 1 to 4 p.m. daily), operating and dissecting rooms and laboratory." The curriculum of the school was much the same as that of the Baltimore College of Dental Surgery.

This small school could not compete with the Baltimore College of Dental Surgery. In 1878, just five years after its founding, the Maryland Dental College was absorbed into the Baltimore College of Dental Surgery; teaching positions were given at least three members of its faculty—M. Whilden Foster, William B. Finney and the former Dean, Richard Bayly Winder, for whom a new Chair of Dental Surgery had been created. Winder became Dean of the Baltimore College of Dental Surgery in 1882.

**Dental Department, University of Maryland**

In 1882 a dental school was chartered by the State Legislature as a department of the University of Maryland. Ferdinand J. S. Gorgas, until that time Dean of the
Baltimore College of Dental Surgery, became Dean of the new Dental Department. James H. Harris, formerly on the faculty of the Baltimore College of Dental Surgery, became Professor of Operative and Clinical Dentistry. This new dental school, having the advantage of affiliation with the School of Medicine of the University of Maryland, was able to provide its students with instruction in a medical environment, where they had the use of many of the resources of the Medical School.

Competition between the Dental Department of the University of Maryland and the Baltimore College of Dental Surgery brought a new vigor to dental education in Maryland; the two schools were constantly striving to improve their facilities and teaching methods.

**Dental Department, Baltimore Medical College**

J. William Smith, a graduate of the Baltimore College of Dental Surgery in 1888, consulted F. J. S. Gorgas, Dean of the Dental Department of the University of Maryland, to ascertain whether he or his faculty had any objections to the establishment of a dental college in connection with the Baltimore Medical College. Since there were already two dental schools in Baltimore, Dr. Smith felt it advisable to have the approval of at least one of them before trying to secure a charter for a new school. Dr. Gorgas had no objection and even helped to secure the charter, which was granted in 1895.

J. William Smith was the Dean of this new school, the Dental Department of the Baltimore Medical College, which enjoyed a high reputation, had excellent physical facilities and a well-qualified faculty, and maintained an amiable relationship with the two other dental schools in the city.

In 1913 the Baltimore Medical College merged with the University of Maryland School of Medicine. When the faculty of the Dental Department decided not to assume the status of an independent school, dental students were transferred to the Dental Department of the University of Maryland. Some members of the faculty were placed on the staff of the University; the equipment was taken over by the University; and the building became the home of the Maryland General Hospital. In 1920 the University of Maryland, which until that time had been privately owned, merged with the Maryland State College of College Park and became a state institution. At the time of the merger, the Dental Department became known as the University of Maryland School of Dentistry.

Casting machine invented by William Taggart, 1907. Taggart's casting process led to the development of the casting processes used in manufacturing today.

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Dissecting lab, University of Maryland Dental Department, 1911

Clinic, University of Maryland Dental Department, 1914

Course ticket to attend lectures
Consolidation

solution: two into one

As dental science became more advanced and dental education more organized, greater demands were placed upon dental schools. There was a growing recognition of the need for a dental school to be affiliated with a medical school in order to meet new standards established by the Dental Education Council in America (organized in 1909). The length of the course of instruction, originally two years, was extended to three years in 1891; and to a full four-year program in 1916.

Expansion of the curriculum and the advance of dental science necessitated additions to the teaching staff and the acquisition of new equipment.

It had become increasingly difficult for the two surviving Baltimore dental schools, the Baltimore College of Dental Surgery and the University of Maryland School of Dentistry, to meet the pressures of increasing demands on their resources. Consolidation seemed to be the best solution for achieving quality dental education in Maryland.

Through this consolidation, agreed upon in 1923 and formally approved by the State Legislature in April, 1924, the Baltimore College of Dental Surgery became the Dental School of the University of Maryland, with status independent of the School of Medicine. In recognition of the inherent historical importance of the Baltimore College of Dental Surgery, the name of the first dental college in the world was preserved by including it as a part of the name assumed by the new school, Baltimore College of Dental Surgery, Dental School, University of Maryland.

The consolidation had far-reaching effects on dental education in Maryland. All dental educational interests in Baltimore had now been combined and efforts could be concentrated on achieving excellence in the program of dental education.
Dr. Timothy O. Heatwole, Dean of the University of Maryland School of Dentistry at the time of the consolidation, continued as Dean of the new school during its first year of operation. The large number of students made it necessary for classes to be held in the buildings of both schools and there was some overlapping of instruction during the transitional period. Dr. J. Ben Robinson was appointed Dean in 1924. Under his leadership dental education entered an era of tremendous change and growth marked by impressive enlargement of the curriculum, greatly expanded physical facilities and improved teaching practices. A new dental school building, constructed in 1928, provided a modern facility with fully equipped science and technic laboratories, large lecture rooms, classrooms, a library and reading room as well as a large clinic wing furnished with new equipment. Instruction could be given at a higher level since students entering the School now had better educational backgrounds. Before 1924 entering dental students were required to have completed high school. In 1924 this requirement was increased to one year of college; and in 1936, to two years of college.

During the next two decades wartime demands on dentistry, a growing public awareness of the need for dental health care and the development of specialties within dentistry resulted in new programs and increasingly high standards for dental education. New materials, techniques and equipment emphasized the need for access to a great variety of resources. Students were instructed in the value and use of dental literature. An outstanding library collection was accumulated with the aid of an endowment, the Clarence J. Gieves Foundation, established by the Maryland State
Dental Association. The potential of visual aids in dental instruction was recognized, and such materials became an essential teaching element in all areas of the curriculum.

research, innovation, expansion

When Dr. Robinson retired in 1953 after almost thirty years of service to the School, Myron S. Aisenberg, Professor of Pathology, was appointed Dean. Under Dr. Aisenberg the School continued its growth, with further expansion of the curriculum to keep pace with the rapid introduction of new materials and equipment, the use of antibiotics in dentistry and new clinical techniques. Basic sciences and the application of research findings were stressed in response to a growing awareness of the importance of scientific research to improved dental services. Laboratories were developed from existing space and the research effort of the School markedly increased under Dr. Aisenberg’s leadership.

Dr. John J. Salley was appointed Dean in 1963 and served in that post until 1974. During this time a great upsurge in curriculum experimentation occurred, stimulated by the need for changes in dental education. It had become necessary to provide the student with a means of assimilating far more biological and technical data, as well as the correlated practical applications of this new knowledge in the practice of dentistry. The requirement for admission was extended to three years of college; curriculum revisions were instituted and experimental programs developed and implemented during this period.

In 1970 the Dental School moved into Hayden-Harris Hall, a new ultra-modern six-story building at 666 West Baltimore Street. The building provided the space and facilities necessary to accommodate an expanding enrollment as well as the broadened and revitalized program of dental education.
The School Today

The achievements of the last decade have been both numerous and significant. Curriculum units in basic dental science, conjoint sciences, biomedicine and community dentistry were conceived and implemented. As the methods of delivery of dental health services evolved to include greater reliance on dental auxiliaries and dental specialists, innovative programs in Dental Auxiliary Utilization (DAU) and Training in Expanded Auxiliary Management (TEAM) were initiated to provide students with experience in the utilization and management of auxiliaries; a baccalaureate program in dental hygiene, the first and only one of its kind in Maryland, was established; and five advanced specialty education programs, which grew to include affiliations with many area hospitals, were instituted.

An Independent Learning Center was established and became the repository of an impressive array of self-instructional materials prepared by the faculty and produced by a new Division of Educational and Instructional Resources. The Continuing Education program, designed to acquaint dentists and dental auxiliaries with changes in knowledge, techniques and materials, realized significant growth in both number of participants and course presentations, and moved into special facilities designed for the program. Clinical facilities were also provided for the intramural practice of clinical faculty participating in the Faculty Dental Service Plan.

Sensitive to social issues, the Dental School established programs for minority student recruitment and special student instruction. In addition, a clinic designed and equipped for the treatment of handicapped patients was opened.
To enrich the undergraduate dental program, dental clerkships (allowing intensive study in one discipline) and a senior dental extern program (providing an opportunity for selected students to work in private dental offices) were designed and implemented as electives. An experimental three-year Accelerated Professional Training (APT) program of dental education was also developed, and graduated its first class of ten students in 1975.

The Baltimore College of Dental Surgery, Dental School, University of Maryland at Baltimore today offers one of the finest programs of dental education in the world and continues to fulfill the aspirations of its founders, Hayden and Harris, to provide a scientific profession to serve the oral health care needs of society.

**preserving the past**

The School has preserved much of its heritage in a Museum which has a large and valuable collection of objects and specimens of historical and professional interest. The collection includes replicas of ancient dental appliances; artificial dentures representing various stages in the development of the art of dental prosthesis; many early dental instruments, dental chairs and operatories; instrument cabinets, dental equipment and other items from various periods; and portraits of leaders in the development of professional dentistry.

The School also has an extensive collection of dental books of historical significance in the Historical Room of the Health Sciences Library. The collection includes three extremely rare editions (1541, 1549, 1576) of the *Zene Artzney*, the oldest known book on dentistry; three editions (1728, 1746, 1786) of Pierre Fauchard’s *Le Chirurgien Dentiste*; two editions (1777, 1778) of John Hunter’s *The Natural History of the Human Teeth*; and the first American book on dentistry, R. C. Skinner’s *Treatise on the Human Teeth* (1801).

**into the future**

The preceding summary of the School’s origin and its contributions to the art and science of dentistry offers ample evidence of the extraordinary place the School occupies in the history of the dental profession. It also affirms the School’s commitment to excellence in dental education, its sensitivity to the changing world around the university and its recognition of the complex needs of the society it serves and of the social forces that mold the profession of dentistry.

Cognizant of the great heritage of the Baltimore College of Dental Surgery, the faculty will continue to strive for the achievement of the School’s mission in the fields of education, research and service. As it continues to educate dental professionals, the world’s oldest dental college moves forward, adept to change and imbued with vitality.
Bibliography


Dental Cosmos, 75th Anniversary Issue, LXXVI, No. 1 (Jan. 1934).


McCarthy, Harry B. "A History of Dental Education in Maryland".


Dental instruments, cabinets, equipment and artifacts pictured in this brochure are from the collection of the Museum of the Baltimore College of Dental Surgery.
Deans of Dental Schools in Baltimore

Baltimore College of Dental Surgery
Chapin A. Harris ............. 1840-1841
Thomas E. Bond ............. 1841-1842
Washington R. Handy ........ 1842-1853
Phillip H. Austin ........... 1853-1865
Ferdinand J. S. Gorgas ....... 1865-1882
Richard B. Winder .......... 1882-1894
M. Whilklin Foster .......... 1894-1914
William G. Foster .......... 1914-1923

Maryland Dental College
Richard B. Winder .......... 1873-1878

Dental Department
University of Maryland
Ferdinand J. S. Gorgas ....... 1882-1911
Timothy O. Heatwole ....... 1911-1923

Dental Department
Baltimore Medical College
J. William Smith .......... 1895-1901
William A. Montell ......... 1901-1903
J. Edgar Orrison ........... 1903-1904
J. William Smith .......... 1904-1913

Baltimore College of Dental Surgery
Dental School
University of Maryland
Timothy O. Heatwole ....... 1923-1924
J. Ben Robinson ............ 1924-1953
Myron S. Aisenberg ......... 1953-1963
John J. Salley ............. 1963-1974
Errol L. Reese (Acting) .... 1974-1975
Errol L. Reese ............. 1975-
This publication was produced by the Baltimore College of Dental Surgery, Dental School, University of Maryland at Baltimore—

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Dear Academy Member:

In October 1980 Dr. Joseph P. Cappuccio, Past President of the American Dental Association and Clinical Professor of Oral Surgery at the Baltimore College of Dental Surgery, presented the Twelfth Pierre Fauchard Academy Memorial Lecture in New Orleans, Louisiana, U.S.A. Members of the Academy found his presentation, recalling the endeavors and lasting contributions of Dr. Horace Hayden and Dr. Chapin Harris, most interesting and inspiring.

Recently the Baltimore College of Dental Surgery developed the enclosed brochure with the intent of rekindling the awareness of Drs. Hayden and Harris and the proud heritage of the first dental college in the world. I hope that you will enjoy this publication, which was written to appeal both to dental professionals and to the general public. The brochure describes some of the landmarks in the evolution of the practice of dentistry and brings into historic perspective the singular role of the Baltimore College of Dental Surgery in the development of professional dentistry. You may want to share this brochure with patients, colleagues and young men and women who aspire to become dentists.

I sincerely hope that you will enjoy this memento from the first dental college in the world.

Cordially,

Errol L. Reese
Dean

ELR:at
Enclosure