

Dentist



Career Description

Dentists diagnose, prevent, and treat problems with teeth or mouth tissue. They remove decay, fill cavities, examine x rays, place protective plastic sealants on children's teeth, straighten teeth, and repair fractured teeth. They also perform corrective surgery on gums and supporting bones to treat gum diseases. Dentists extract teeth and make models and measurements for dentures to replace missing teeth. They provide instruction on diet, brushing, flossing, the use of fluorides, and other aspects of dental care. They also administer anesthetics and write prescriptions for antibiotics and other medications.

Dentists use a variety of equipment, including x-ray machines; drills; and instruments such as mouth mirrors, probes, forceps, brushes, and scalpels. They wear masks, gloves, and safety glasses to protect themselves and their patients from infectious diseases.

Dentists in private practice oversee a variety of administrative tasks, including bookkeeping and buying equipment and supplies. They may employ and supervise dental hygienists, dental assistants, dental laboratory technicians, and receptionists.

More than 80% of dentists are general practitioners, handling a variety of dental needs. Other dentists practice in any of nine specialty areas.

- *Orthodontists*, the largest group of specialists, straighten teeth by applying pressure to the teeth with braces or retainers.
- *Oral and maxillofacial surgeons*, the next largest group, operate on the mouth and jaws.
- *Pediatric dentists* focus on dentistry for children
- *Periodontists* treat gums and bone supporting the teeth
- *Prosthodontists* replace missing teeth with permanent fixtures, such as crowns and bridges, or with removable fixtures such as dentures
- *Endodontists* perform root canal therapy
- *Public health dentists* promote good dental health and prevention of dental diseases within the community
- *Oral pathologists* study oral diseases
- *Oral and maxillofacial radiologists* diagnose diseases in the head and neck through the use of imaging technologies

Teaching, dental research and dental industry comprise additional rewarding career options for both general practitioners and dental specialists. Dentists also work in public health agencies, hospitals, the military and other settings.



Employment Characteristics

Most dentists work 4 or 5 days a week. Some work evenings and weekends to meet their patients' needs.

Most full-time dentists work between 35 and 40 hours a week, but others work more. Initially, dentists may work more hours as they establish their practice. Experienced dentists often work fewer hours. Many continue in part-time practice well beyond the usual retirement age.

Most dentists are solo practitioners, meaning that they own their own businesses and work alone or with a small staff. Some dentists have partners, and a few work for other dentists as associate dentists.



Salary

In 2004, the average earnings for a general practitioner who owns his/her practice was over \$185,940; the average earnings for a dental specialist was over \$315,000. Dentists' average income places them in the highest 5% of US family income.

For more information, see www.ama-assn.org/go/hpsalary.



Employment Outlook

Employment of dentists is projected to grow about as fast as average for all occupations through 2014.

Although employment growth will provide some job opportunities, most jobs will result from the need to replace the large number of dentists expected to retire. Job prospects should be good as new dentists take over established practices or start their own.

Demand for dental care should grow substantially in the future. As members of the baby-boom generation advance into middle age, a large number will need complicated dental work, such as bridges. In addition, elderly people are more likely to retain their teeth than were their predecessors, so they will require much more care than in the past. The younger generation will continue to need preventive checkups despite treatments such as fluoridation of the water supply, which decreases the incidence of tooth decay. Employment of dentists, however, is not expected to grow as rapidly as the demand for dental services. As their practices expand, dentists are likely to hire more dental hygienists and dental assistants to handle routine services.

Dentists will increasingly provide care and instruction aimed at preventing the loss of teeth, rather than simply providing treatments such as fillings. Improvements in dental technology also will allow dentists to offer more effective and less painful treatment to their patients. For example, National Institute of Dental and Craniofacial Research (NIDCR) clinical and basic research that may revolutionize the practice of dentistry includes:

- Postnatal stem cell research aimed at tissue regeneration
- Salivary research, which is expected to yield new diagnostic tests
- Gene transfer therapy that may induce the salivary glands to produce hormones, antibodies, or other agents to prevent or treat oral and systemic disease
- Stem cells, possibly derived from the patient's own deciduous teeth, used to repair bone defects
- Small "labs-on-a-chip" placed intraorally to analyze hundreds of different components in oral fluids as early indicators of oral and systemic disease
- Restorative procedures and new dental materials to retain teeth

Need for Minority Dentists

There is a critical need in many underserved communities where minority and disadvantaged people are not getting the dental care they need. Only 12% of students entering dental school are minorities, while minorities make up 25% of the general population. Recent data shows that minority dentists treat a very high number of minority patients.

More underrepresented minority dentists (African American, Hispanic and American Indian) are necessary to eliminate the barriers to oral care. This need is expected to increase, in light of US

Census projections that minority populations will make up more than 50% of the US population by 2050.



Educational Programs

Award, Length. Dental schools award the degree of Doctor of Dental Surgery (DDS) or Doctor of Dental Medicine (DMD); programs are 4 years.

Prerequisites. Those interested in a career in dentistry are encouraged to obtain broad exposure to science and math while in high school and to enroll in college preparatory classes in biology, algebra, and chemistry. In addition, it is recommended to continue taking natural science courses in college such as general biology, organic and inorganic chemistry, and physics. Majoring in science is not a must, but completion of pre-dental science requirements is necessary. A college undergraduate degree is recommended in preparation for dental school. Most dental students have completed four years of college.

Other good ways to learn more about the field and prepare for a career in dentistry:

- Ask to volunteer or job shadow at your family dentist's office, orthodontist's office and pediatric dentist's office
- Talk with admission officers about financial aid resources and dental school requirements
- Join the American Student Dental Association (ASDA)
- Take the Dental Admissions Test (DAT) a year before entering dental school

Curriculum. The four years of study leading to the DDS or DMD degree are divided into two components. Years 1 and 2 encompass:

- Classroom and laboratory instruction in basic health sciences (including anatomy, biochemistry, histology, microbiology, pharmacology, and physiology), with an emphasis on dental aspects
- Basic principles of oral diagnosis and treatment; students may practice on manikins and models, and may begin treating patients later in the second year

Years 3 and 4 cover the following:

- Treatment of patients under the supervision of licensed dental faculty. Procedures cover the broad scope of general dentistry

and include opportunities to work in a variety of settings, eg, community clinics, hospitals, and outpatient clinics

- Practice management courses, including instruction in effective communication skills, the use of allied dental personnel, and business management



Licensure, Certification, Registration

All states require dentists to be licensed to practice. In most states, a candidate must graduate from a US dental school accredited by the ADA Commission on Dental Accreditation and pass written and practical examinations to qualify for licensure. In 2004, 17 states licensed or certified dentists who intended to practice in a specialty area. Requirements include 2 to 4 years of postgraduate education and, in some cases, the completion of a special state examination.



Inquiries

Education, Careers, Resources

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Program Accreditation

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Note: Adapted in part from the Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, 2006-07 Edition, Dentists, on the Internet at www.bls.gov/oco/ocos072.htm (visited August 24, 2007).