

pre-dental

career guide



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interested in dentistry?

What is Dentistry?

Are you interested in building personal relationships with patients and managing your own office? Do you work well with your hands and have an interest in incorporating creativity to your everyday life? Do you prioritize work-life balance? If any of these questions align with your career goals, dentistry may be a good option for you to consider.

Dentistry is a field of medicine that requires hands-on skills, from performing oral surgeries to making dental crowns. The definition of dentistry is “the treatment of diseases and other conditions that affect the teeth and gums, especially the repair and extraction of teeth and the insertion of artificial ones.” Due to the specificity of dental procedures, good visualization and hand-eye coordination are essential for dentists. Thus, many dental schools look for students with good manual dexterity that can be developed through several activities, including pottery, crocheting, and playing instruments.

Individuals with a Doctor of Dental Surgery (DDS) or Doctor of Medicine in Dentistry (DMD) degree can continue their education and pursue a specialty, such as orthodontics, periodontics, oral and maxillofacial surgery, and more. However, even without specializing, dentists are always continuing to learn, whether it is through seminars, learning about new dental technologies, or lecturing at a college or university.

Benefits of Dentistry

A major benefit to dentistry is the mixture of independence and teamwork involved in the job. Many dentists run their own office at some point in their career. This entails owning an office (or multiple), hiring your own team, making your own work schedule, and ultimately being your own boss. If you decide to start your own practice, you can have control of nearly every aspect of your job. Dentists generally have a good work-life balance, as they can decide how many days and hours they work in a week if they decide to run their own clinic. In addition to this independence, dentistry involves constant interaction with people, including co-workers, assistants, receptionists, and associates, and patients. Therefore, dentistry also requires a lot of teamwork and people skills.

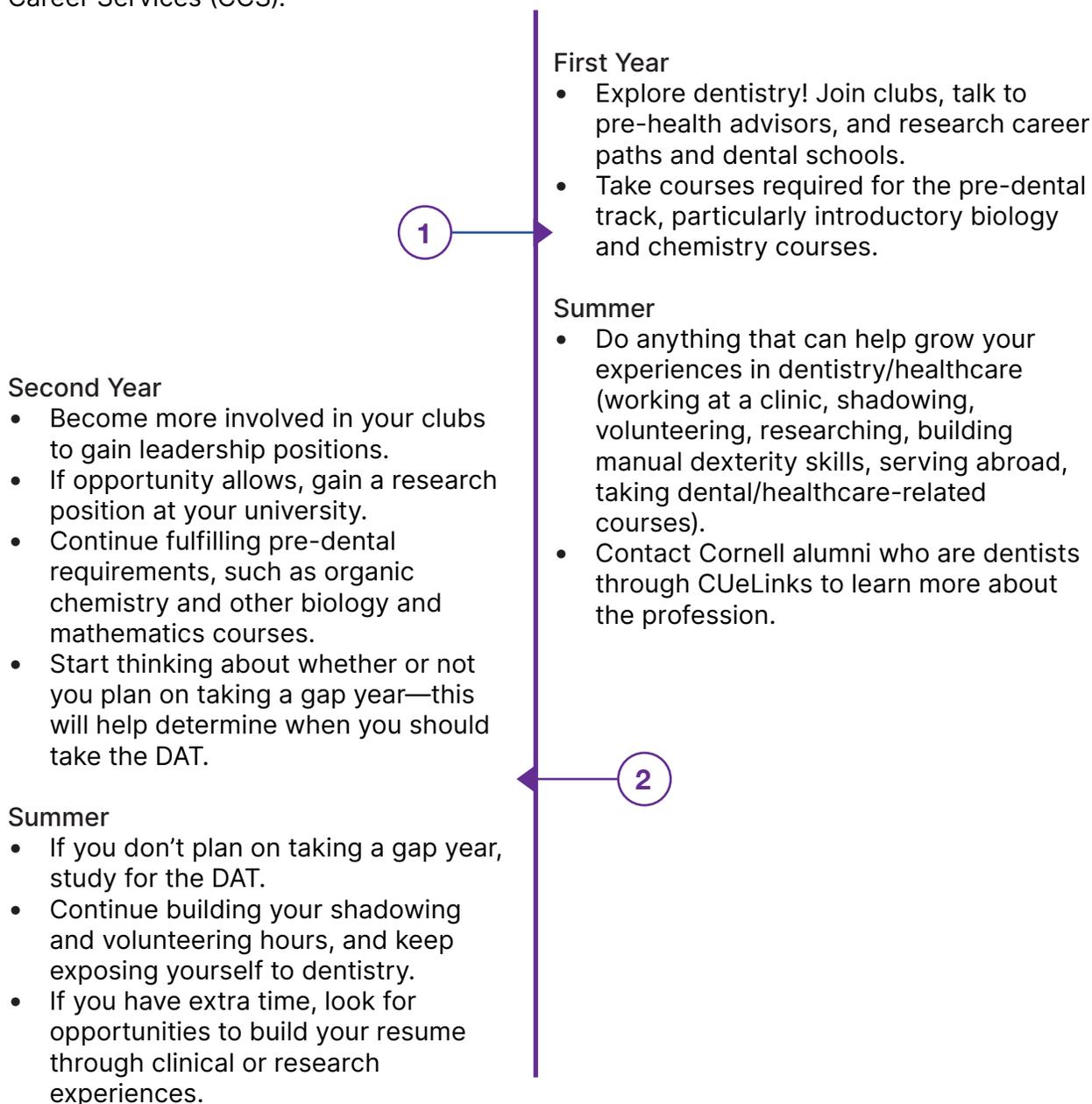
Another benefit to dentistry is financial stability. According to Forbes, the average dentist salary in the U.S. ranges from approximately \$124,020 to \$264,440. However, with the option of specializing as well as opening up private practices, dentists can earn much more money as they advance in their careers.

Finally, the most rewarding aspect of dentistry is helping patients maintain good oral health and have confidence in their smiles.

pre-dental timeline

Every pre-dental student will have a different timeline based on when they want to matriculate into dental school, how ready they feel for the DAT and to apply to dental schools, and other personal circumstances.

While there is nothing set in stone on when you should complete certain requirements or recommendations for dental school applications, below you can find a general timeline for pre-dental students. The timeline details an example four-year plan for a pre-dental student who does not plan on taking a gap year. It can be extended for however long based on when you want to enter dental school. According to the University of Georgia, 50% of first-year dental students took a gap year. It's all personal, so don't be stressed if you are not exactly on track with the timeline below! For further guidance, you can contact Cornell's resources, including the Health Professions Advising Center (HPAC) and Cornell Career Services (CCS).





Third Year

- Take the DAT when you are ready to. Taking it at the beginning of the year is common to avoid having to study for the exam during the academic season.
- Finish up pre-dental course requirements.
- Join the HPAC Canvas Course and complete the assignments for a Cornell Letter Packet and a Comprehensive Advising Appointment.
- Think about what dental schools you are interested in.
- Think about what you will write your personal statements on and begin drafting essays.
- Continue building leadership roles in clubs and organizations.

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Summer

- Submit the ADEA AADSAS application (applications open mid-May and close in February). Provisional offers of admission are released in December, and dental schools use rolling admissions, so submitting an early application is ideal.

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Fourth Year

- Go on interviews for the dental schools that offered one.
- Think about where to attend dental school based on acceptances, location, cost, and more.
- Finish up your degree and maintain your grades.

Summer

- Rest! If you are not taking a gap year, this is the best time to simply relax and rest up before entering dental school.
- Continue building experience in dentistry to prepare for your first year at dental school.

dental school application guide: (1) the DAT

Taking the DAT

What is the DAT?

The Dental Admission Test (DAT) is used by 66 U.S. dental schools to gauge student's preparedness for dentistry. A DAT score is one of several components that dental schools look for in their applications, but the importance of the test depends on each program. This section will guide you through the topics of the DAT, what and how to prepare for it, and logistical information of the examination.

Four Main Topics

1. **Survey of Natural Sciences (100 items)**
 - Biology Test (40 items)
 - General Chemistry (30 items)
 - Organic Chemistry (30 items)
2. **Perceptual Ability (90 items)**
 - Aperture/Keyhole questions (passing objects through three-dimensional objects with apertures/openings)
 - View Recognition (Top/Front/End)
 - Angle Discrimination (Angle Ranking)
 - Paper Folding (Hole Punches)
 - Cube counting
 - 3D Form Development (Pattern Folding)
3. **Reading Comprehension (50 items)**
 - 3 scientific reading passages
4. **Quantitative Reasoning (40 items)**
 - Mathematical Problems
 - Applied Mathematics Word Problems

Preparing for the DAT

The American Dental Education Association recommends that students study for the DAT three to four months in advance. To help with studying, there are several online and book resources:

1. Online DAT Prep
 - DAT Bootcamp
 - DAT Booster
 - Above are the two DAT prep sites. Both websites have plenty of resources to help students succeed on the DAT, but they are slightly different. Students should research these differences and choose whichever option fits them best.
2. DAT Prep books from DAT Destroyer, Kaplan, Mometrix, The Princeton Review, and more.
3. Textbooks for biology, general chemistry, and organic chemistry.
4. DAT Study Groups on Facebook.
 - Online prep sites often advise students to join Facebook groups like The Official DAT Study Group. These can be helpful for gaining study tips.

DAT Study Schedules (8-, 10-, and 12-week versions)



DAT Scoring

After taking the DAT and finishing a survey, an unofficial DAT Score Report will pop up on the screen. This will include your score for each section, with a maximum score of 30 for each section, as well as for the Total Science score (including biology, general chemistry, and organic chemistry), and an Academic Average score (includes scores from every section except PAT).

Logistics of the DAT

- You are allowed three attempts on the DAT with 60 days in between each attempt, but you can petition for more.
- The DAT costs \$525.
- To take the exam, you must apply through the Prometric Test Center at least 60-90 days in advance.
- Students typically begin taking the DAT after they finish organic chemistry. Without a gap year, students would have to finish their DAT before or by their junior year.

Partial fee waivers of 50% off on the DAT are available to a select number of people who meet all eligibility requirements.

Partial Fee Waiver Eligibility Requirements

Eligibility Requirements

- First-time examinee
- Has not previously received a partial fee waiver
- U.S. citizen or resident alien
- Has demonstrated financial hardship
- Received financial aid from their school

Further information on fee waivers and DAT information can be found on the American Dental Association website:



(2) application requirements

Application requirements for dental school vary for each school, but the following requirements are generally seen in most dental schools, especially those that use the ADEA AADSAS application portal:

1. GPA/Transcript
2. DAT Score
3. Letters of Recommendation
 - Each school has different requirements, but usually 2-3 are expected.
4. Shadowing Hours (varies by school)
5. Volunteer Hours (varies by school)
6. Personal statement
 - This is similar to the common application essay that is required for undergraduate colleges, but you will have 1 page or around 4500 characters to explain why you are interested in dentistry.

(3) what should you look for in dental schools?

In the U.S., there are 70 dental schools, but students typically apply to 10 – 15 schools. So, how should you decide which schools to apply to? What factors should you consider before picking your safety, target, and reach schools?

Factors to consider:

- Tuition
- Location
- Dental school curriculum
- Grading practices (many dental schools have a pass/fail grading system)
- Clinical opportunities
- Research opportunities
- Class size and diversity
- Selectivity (average GPA, average DAT score)
- Application requirements

Information on each dental school can be found on their respective websites. The CEC also has a dental school guide with information on U.S. dental schools' required courses, recommended courses, GPA, DAT, and field experience.

summer activities

Pre-dental students spend their summers in various ways that can improve their chances of admission into dental school. While there are no set requirements for what you should do over the summer, the following are common summer activities for gaining exposure to dentistry and building relevant skills:

- Shadowing general dentists and specialists (requirements for shadowing hours vary by school).
- Working or interning at a dental office (front desk work or assisting).
- Working on a research project.
- Participating in pre-dental or pre-health summer programs (see below for opportunities).
- Studying for the DAT.
- Building manual dexterity skills through activities like pottery, knitting, crocheting, playing instruments, etc.

summer pre-dental opportunities



[Link to summer pre-dental opportunities](#)

1. Summer Health Professions Education Program
2. University of Pennsylvania School of Dental Medicine Introduction to Dentistry Summer Program
3. Texas A&M Summer Pre-Dental Programs
4. Harvard School of Dental Medicine Bridge to Dental School Program
5. Rutgers School of Dental Medicine Gateway to Dentistry Program
6. NIH Summer Internship Program (combined with training at the NIDCR (National Institute of Dental and Craniofacial Research))
7. Touro College of Dental Medicine's Pre-Dental Experience
8. Stony Brook School of Dental Medicine Discover Dental School: Summer Scholars Program

Another way to gain clinical experience is to cold-call local dental offices or email them asking if they have any opportunities.

When contacting dental offices, make sure to do the following:

- Introduce yourself.
- Explain why you are interested in dentistry and why you are reaching out to them.
- Ask if they have space for a pre-dental student to help around in the office and explain some things you might be interested in doing (front desk, assisting, shadowing, etc.).
- Thank them for their consideration.

pre-dental at cornell: (1) course requirements

Below is a list of Cornell classes that can be taken to fulfill pre-dental requirements. The number of courses needed in each subject is signified by the number in parentheses.

General Chemistry (2) (including lab)	CHEM 2070 General Chemistry I CHEM 2080 General Chemistry II
Organic Chemistry (2)	CHEM 3570 Organic Chemistry for the Life Sciences I CHEM 3580 Organic Chemistry for the Life Sciences II CHEM 3590 Honors Organic Chemistry I CHEM 3600 Honors Organic Chemistry II
Organic Chemistry Lab (1)	CHEM 2510 Introduction to Experimental Organic Chemistry CHEM 3010 Honors Experimental Chemistry
Biology (2)	BIOMG 1350 Cell and Developmental Biology BIOG 1440 Comparative Physiology BIOG 1445 Comparative Physiology (autotutorial) BIOEE 1610 Ecology and the Environment BIOEE 1780 Evolution and Diversity
Biology Lab (1)	BIOG 1500 Investigative Lab BIOSM 1500 Investigative Marine Biology Lab
Physics (with lab) (2)	PHYS 1101 General Physics I PHYS 1102 General Physics II PHYS 2207 Fundamentals of Physics I PHYS 2208 Fundamentals of Physics II PHYS 1112 Physics I: Mechanics and Heat PHYS 2213 Physics II: Electromagnetism
Biochemistry (1)	NS 3200 Introduction to Human Biochemistry BIOMG 3300 Principles of Biochemistry, Individualized Instruction BIOMG 3310 Principles of Biochemistry: Proteins and Metabolism and BIOMG 3320 Principles of Biochemistry: Molecular Biology BIOMG 3310 Principles of Biochemistry: Proteins and Metabolism and BIOMI 2900 General Microbiology BIOMG 3350 Principles of Biochemistry: Proteins, Metabolism, and Molecular Biology
Anatomy and Physiology	Other Commonly Required/Recommended Course Topics NS 3410 Human Anatomy and Physiology NS 3420 Human Anatomy and Physiology Laboratory BIOG 1440 Comparative Physiology BIOG 1445 Comparative Physiology (autotutorial)
Microbiology	BIOMI 2900 General Microbiology Lectures BIOMI 2600 Microbiology of Human Contagious Diseases BIOMI 2911 General Microbiology Lectures

Statistics/Biostatistics	STSCI 2150 Introductory Statistics for Biology BTRY 3010 Biological Statistics I PAM 2100 Introduction to Statistics AEM 2100 Introductory Statistics ILRST/STSCI 2100 Introductory Statistics MATH 1710 Statistical Theory and Application in the Real World PSYCH 2500 Statistics and Research Design SOC 3010 Statistics for Sociological Research
Psychology	PSYCH 1101 Introduction to Psychology
Calculus	MATH 1110 Calculus I MATH 1106 Calculus for the Life and Social Sciences
Cell Biology	Any classes in the BIOMG Department (i.e., BIOMG 4320 Survey of Cell Biology)
Histology	BIOAP/BIOMS 4130 Histology: The Biology of the Tissues
Sociology	SOC 1101 Introduction to Sociology DSOC 1101 Introduction to Sociology
Humanities/Social Sciences	Course Distribution classes listed under Historical Analysis (HA), Literature and the Arts (LA), or Cultural Analysis (CA).

Link to all dental school course requirements and recommendations



(2) dental-related clubs at cornell

Clubs/Student Organizations	<ol style="list-style-type: none"> 1. Cornell University Pre-Dental Society 2. Operation Smile 3. Global Medical Missions Alliance 4. Cornell's Surgical Society 5. Cornell Smiles for Students
Pre-Professional Fraternities/Sororities	<ol style="list-style-type: none"> 1. Rho Psi Eta Pre-Health Sorority 2. Alpha Iota Gamma Pre-Health Fraternity 3. Phi Delta Epsilon Pre-Medical Fraternity

Disclaimer: student organizations continuously come and go. Check Campus Groups (<https://cornell.campusgroups.com>) to browse club activity and find different organizations to join!

dental specialties

After receiving a Doctor of Dental Surgery (DDS) or a Doctor of Dental Medicine (DMD) degree, dentists can decide between multiple paths to further their career and/or education. Many dentists go straight into the workforce and get a job as a General Dentist or Family Dentist. Others continue their education through more training and residency programs that are typically called Advanced Education in General Dentistry or General Practice Residency Programs. Another option many dentists pursue is postdoctoral programs for dental specialties.

General Dentists can perform a wide range of procedures, but when patient cases become more severe or specific to a certain area of dentistry, dentists may refer patients to specialists. In order to qualify for the ability to treat patients with certain cases, dentists have to pursue additional years of training and education. Currently, the American Dental Association (ADA) recognizes 12 areas of dental specialties. The following pages provide information on each specialty, approximate salaries, and the years of education needed for a degree. Links for all the sources used in this section are provided at the end.

Dental Anesthesiology

Dental Anesthesiologists provide expertise in anesthesiology and sedation for dental procedures. They typically work in dental offices, hospitals, and educational institutions.

- Average salary: \$192,371 – \$310,594
- Duration of Training: 3 years

Dental Public Health

Dental Public Health Professionals work on improving oral health in larger communities through policy and program development. Programs are offered by universities and larger organizations like the CDC (Centers for Disease Control and Prevention).

- Average salary: \$165,000 – \$299,000
- Duration of Training: 3 years

Endodontics

Endodontists specialize in root canal treatments and focus on the maintenance of natural teeth through procedures including pulp therapy, root surgery, and teeth perforations.

- Average salary: \$217,194 – \$358,186
- Duration of Training: 2 – 3 years

Oral and Maxillofacial Surgeons

Oral and Maxillofacial Surgeons work on diseases or injuries on the mouth or jaw. These include head, neck, and oral cancers, sometimes cosmetic surgeries, and dental implants.

- Average salary: \$239,778 – \$392,498
- Duration of Training: 4 – 6 years

Oral and Maxillofacial Pathologists

Oral and Maxillofacial Pathologists study pathologies of diseases that originate in the mouth or jaw. They specialize in researching diseases and diagnoses through clinical, biochemical, radiographic, and microscopic examinations.

- Average salary: \$133,476 – \$284,746
- Duration of Training: 3 years

Oral and Maxillofacial Radiologists

Oral and Maxillofacial Radiologists study how to diagnose and treat diseases and injuries related to the mouth or jaw with digital images, including CT scans and MRI scans. They need a strong understanding of radiation physics and biology.

- Average salary: \$102,435 – \$154,365
- Duration of Training: 2 – 3 years

Oral Medicine

Oral Medicine Specialists work on diagnosing and managing head and jaw diseases and injuries with diagnostic biopsies and therapeutic injections. These specialists also work with topical and systemic medications.

- Average salary: \$143,000 – \$267,000
- Duration of Training: 2 – 3 years

Orofacial Pain

Orofacial Pain Specialists work on diagnosing, managing, and treating oral and maxillofacial pain disorders. They work on improving patient care and access to it through studying pathophysiology, prevention and treatment, and etiology.

- Average salary: \$97,397 – \$152,723
- Duration of Training: 2 – 3 years

Orthodontics

Orthodontists specialize in providing braces and treating or preventing other conditions related to dental abnormalities. These can include fixing bites, irregularities caused by missing and/or misaligned teeth, and treating jaw problems.

- Average salary: \$214,464 – \$344,440
- Duration of Training: 2 – 3 years

Periodontics

Periodontists specialize in dental implants and treating periodontal diseases through procedures like deep cleaning. They work specifically with dental gums, bones, and tissues.

- Average salary: \$174,361 – \$280,031
- Duration of Training: 3 years



Pediatric Dentistry

Pediatric Dentists work specifically with children and provide dental treatments as well as advice and education on maintaining proper oral health to children and their parents. They mainly treat cavities, do fillings, and provide dental cleaning to children.

- Average salary: \$176,000 – \$315,000
- Duration of Training: 2 – 3 years

Prosthodontics

Prosthodontists specialize in cosmetics and restoring patients' teeth through dentures, bridges, implants, and crowns. They also have expertise in temporomandibular disorders.

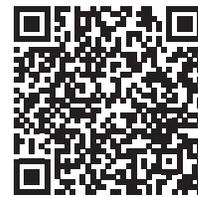
- Average salary: \$119,710 – \$208,000
- Duration of Training: 3 years

Note: the average salaries are national estimates. Each state has different salary ranges for specialties!

Sources



Sources used for salary ranges and length of program



American Dental Education Association's (ADEA) descriptions for dental specialties.

Licensing Requirements

Each state has different requirements for who can practice dentistry. These license requirements vary by specialty and location. Specific details can be found in the QR code below!



The QR code on the right provides additional sources that were used to create this booklet



This guide was put together by the Career Exploration Center staff, including Minji Kim '25.

