

# Medical School

### INTRODUCTION

Although the number of medical school applicants has decreased slightly in the last couple of years, there are still 2 ½ times as many applicants as there are slots available. This packet provides you with general medical school and application information. Remember that it is best to check with the American Medical College Application Service (AMCAS) or the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS) as well as the individual schools for details on applying since it can vary each year. See **Appendix A** for addresses for these two associations.

### BEFORE YOU APPLY

Before choosing medical school as a path to your career goal, you should ask yourself some questions:

- Why do I really want to become a doctor?
- Do I care deeply about other people, their problems, and their pain?
- Do I often dig deeper into a subject than my professor requires? Do I understand the value of learning beyond just making good grades?
- Am I interested in how the human body functions? Am I intrigued by the ways medical science can improve life?
- What kind of physician do I want to be?
- Is there something I like about this job that can be found in another medically related field? Could I be happy doing one of these other health-related jobs?
- Am I committed to the time and work demands of a medical school student?
- Am I committed to the time and work demands of a physician? Veterinarian? Dentist?

These questions are all a part of evaluating your skills, identifying your values and seeing how your interests relate to your potential career choice of medical doctor. Answering these questions will also allow you to explore some of your options as you determine the full range of choices available to you.

### M.D. vs. D.O.

When deciding to become a physician you have two choices of medical training. Allopathic medical schools provide the degree doctor of medicine (M.D.) and osteopathic schools award the degree doctor of osteopathy (D.O.). Both types of physicians treat illness and disease and can specialize in any of numerous fields. Osteopaths place special emphasis on the musculoskeletal system and may use Osteopathic Manipulative Therapy, manipulation of muscles and joints, in addition to drugs or surgery. Osteopaths use all of the modern diagnostic techniques that M.D.s use. Although most osteopaths become general practitioners, many specialize. D.O.s also use a more holistic approach to medicine. The greatest concentration of D.O.s is in states that have an osteopathic school, although D.O.s are increasingly practicing in other states, as well. Both M.D.s and D.O.s go through four years of medical training and at least three years of residency. During the first two years of medical school, students in both programs take courses in anatomy, biochemistry, physiology, pharmacology, microbiology pathology, and medical ethics. During the second two years, students do rotations in a number of specialized areas including internal medicine, obstetrics and gynecology, pediatrics, psychiatry, and surgery. Most M.D.s go directly into a residency after graduation from an accredited allopathic school while D.O.s serve a 12-month rotating

internship before beginning a residency program. The scope of practice for both types of physicians includes general practice or one of the following specialties:

Allergist-Immunologist  
Anesthesiologist  
Cardiologist  
Dermatologist  
Gynecologists/Obstetrician  
Internist

Neurologist  
Ophthalmologist  
Otolaryngologist  
Pathologist  
Pediatrician  
Physiatrist

Proctologist  
Psychiatrist  
Radiologist  
Surgeon  
Urologist

## Requirements

If you are seriously considering medical school, it is imperative that you check out the requirements for admission. Be aware that most schools have a minimum GPA and MCAT score requirement in order to apply. Be sure to apply to several schools. While it's not bad to have one particular school in mind, there is a lot of competition for admission, so be careful not to limit your options. Also, remember to keep the admission requirements in mind when planning your academic schedule and make sure you can meet these requirements once application time rolls around.

Most medical schools require:

- Biology-I year (2 blocks) with lab
- General Chemistry-I year with lab
- Organic Chemistry-I year with lab
- Physics-1 year with lab
- Mathematics
- English

The courses should include adequate laboratory experience. Mathematics course work is also required or strongly recommended by most schools. Some schools also require that you take Biochemistry and Psychology. In addition, studies in the humanities and the social and behavioral sciences, with an emphasis on the development of effective writing skills, are suggested or even required in some instances.

Make sure that you have a well-rounded undergraduate experience. **More emphasis is placed on your ability to meet the basic requirements than your major.**

Aside from knowing about the required classes and test scores, you should become familiar with the application process for medical school. The Career Center library and Health Professions Office have additional resources on admission requirements and medical school information. Also, check the websites for the Association for American Medical Colleges – <http://www.aamc.org> and the American Association of Osteopathic Medicine - <http://www.aacom.org> for both general and specific information about schools of interest to you.

## MCAT

Taking the Medical College Admission Test (MCAT) is critical for admission to both M.D. and D.O. schools. Your score may suggest how well prepared you are for the rigors that lie ahead in medical school. The test measures your knowledge of biological and physical sciences, as well as your verbal reasoning, writing, and problem-solving skills.

Colorado College students utilize different means of preparing for the MCAT. Some students enroll in a prep course, such as those offered by Kaplan or Princeton Review. These prep courses usually cost \$400 and up and last 8 weeks. Others elect to study individually or with a partner. Completing practice tests such as those found in Barron's Guide to the MCAT is also extremely helpful. The Association of American Medical Colleges (AAMC) publishes four sets of practice exams reflecting the sections of the MCAT exam. These can be ordered through their website at [www.aamc.org](http://www.aamc.org).

Be sure to plan ahead; the MCAT is not like other standardized tests. You may not have needed to study for the SAT or ACT, however, you will need ample preparation for the MCAT. Some people suggest that you begin preparing four months in advance. You can register online at <http://www.aamc.org>. Click on the link to the MCAT. MCAT offers the test in April and August in most larger towns and cities. Most schools prefer that you take the test in April or the spring before you plan to enroll (spring of your junior year) so that your scores will be available to them at the time of application.

The MCAT consists of four sections: Verbal Reasoning, Physical Sciences (General Chemistry and Physics), Biological Sciences (Organic Chemistry and Biology), and Writing Sample. For each of the first three sections you will be given a numerical score from 1-15. You'll want to aim for at least a 10 or 11. For the writing sample your score is on a letter scale

from J-T. The MCAT is an all day, 8hr, test. Verbal Reasoning and Physical Sciences sections are in the morning with a ten-minute break between sections. Then you have an hour for lunch before you start the two 30 minute writing samples and then the Biological Sciences section.

If you do not perform as well as you would have liked you can take the test again in August (the fall before you plan to enroll) and have the scores forwarded after your applications have been sent. It usually takes a minimum of eight weeks to receive your scores. Medical schools have different methods of dealing with your scores if you have taken the MCAT more than once. Some schools take the highest score, some take the most recent, and others average all of the scores together. Contact the individual schools to see how they do this. Even if you are going to wait a few years to apply to medical school it is best to take the MCAT while you are still in college since the information is fresh in your mind and you are used to academic studies. Validity of scores varies according to each school, but are usually valid for three years. Some schools want you to have taken the MCAT recently while others may not have a time limit.

## Experience

Most medical schools prefer that you have experience in a medical setting. Admissions committees want to know that you have seen the profession in action and have a realistic outlook on becoming a physician. Look for **internships** that relate to the medical field. Check with the Health Professions Office, the Career Center, and local hospitals for opportunities. The Career Center can assist you in searching for positions and can help you prepare a resume and cover letter.

Another way to experience a medical setting is through **job shadowing**. This allows you to answer some of the questions and assumptions you may have about a particular job. It also may expose you to some of the negative aspects of a career that you may have overlooked.

**Volunteering** is an additional great way to experience a particular career. Volunteer in hospitals, clinics and nursing homes. You can do this during the summers as well as during the school year. A **research** job may also offer you another perspective of the medical field. Some people find that they would rather go to graduate school and pursue a doctorate after their experience, while others become more appreciative of the clinical side of medicine

## Initial Application

Most allopathic and all osteopathic schools use a general application provided by their individual associations for the initial application. These applications come from the American Medical College Application Service (AMCAS) and the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS). They include general information such as undergraduate coursework, employment history, extracurricular activities, MCAT scores, a personal statement, and a check-off list to designate the schools to which you would like to file an application. Filling out the application can be very tedious and time-consuming. Both the AMCAS and AACOMAS have developed an electronic application. You may want to print a hard copy of the instruction booklet, print the application, print your essays and print your answers as you go along, so that you don't completely lose your work if you experience any problems with the system. Note that your personal statement may be included in the personal comments section. Also, be sure to pay special attention to direction regarding study abroad coursework. Contact AMCAS or AACOMAS for information on the electronic applications (see Appendix A). At the time you fill out this application, be sure to have the Colorado College Registrar, and the registrar at any other colleges you have attended, forward your transcripts to the application service and make certain that all of your MCAT scores have been sent there as well. There is a fee associated with these applications that is based on the number of schools to which you are applying. For the few schools that do not use these services (Brown, the Texas system, Baylor, etc.), you will need to request an application from the individual school's admissions office.

It is best to complete your initial application early in the summer so that you will have the remainder of the summer to fill out secondary applications. The earlier you return it the better so that your application will be one of the first they see.

**Double and triple-check your work. Remember to keep photocopies of all applications and materials you submit.**

## Secondary Application

The application service forwards your application to each of the schools you have marked. If you meet the minimum requirements of that school, you will usually be sent a secondary or supplementary application. Some schools send "secondaries" to all applicants. These applications vary depending upon the school. They usually consist of more questions about your activities and your desire to attend that particular school as well as requesting letters of recommendation and an additional fee. Some schools request a passport size photo also. It is important to return these applications promptly since interview slots fill quickly and there are not enough for all qualified applicants.

## Letters of Evaluation

Letters of evaluation usually consist of a composite letter from the Health Professions Advisor that includes full text from the evaluation letters that were submitted to your Health Professions Advisor. It is best to have letters from 2-3 science faculty, 1-2 faculty outside the sciences, as well as letters from former employers and supervisors. However, only submit the number of letters asked for by each program. See the Health Professions Office for details on submitting these letters. You should begin asking professors for letters early second semester of your junior year. If you are waiting a few years to apply, you should still request these letters while you are on campus and the professors remember who you are and what you have done. It is helpful to submit your resume or a list of your activities when requesting a letter. The Career Center is available to critique your essays and assist you in the application process.

When you approach someone to write a letter of evaluation, don't hesitate to ask whether or not he or she can write you a strong letter of support. If the person hesitates in any way, look elsewhere for an evaluation. You do not want any lukewarm letters of evaluation submitted on your behalf.

Be prepared to give your resume to those who are writing your letters of evaluation. This will provide a more complete picture of your background and interests. You might also want to include a copy of your transcripts to fill in the academic details. In addition, provide those writing evaluations with a request for letter of evaluation waiver form in addition to a stamped and addressed envelope.

## Interviews

After evaluating your secondary application, the school will make a decision on whether to invite you for an interview. Every school requires an interview before acceptance can be granted. Interviews are usually held at the school. If possible, you should arrange to stay with a current student the night before your interview so that you have a chance to talk with other students and get a perspective of the campus. Many times this can give you the most realistic view of that school. Some schools may put your application on hold or may wait list you after the interview process. Some schools may not notify students until far into the summer because of other accepted students withdrawing.

The best way to prepare for medical school interviews is to actually practice in an interview setting. The Club Med, the Health Professions students' club, and Career Center provide an evening of mock interviews on an annual basis. During this event, local doctors, dentists, and veterinarians meet individually with students and provide a realistic interviewing environment.

The Kaplan Newsweek Medical School Admissions Advisor, 2001 edition, has a comprehensive chapter on interviewing. This chapter gives you practical advice on handling the tour, understanding the dynamics of the interview, types of interviews, and managing the interview day among others things. This book is available in the Career Center.

The Career Center can help you prepare for an interview in several ways. The "Job Interview Skills" packet has general instructions on preparing for job interviews, helpful tips, possible questions, and the best way to answer questions. See Appendix B for examples of medical school interview questions. The Career Center also offers practice interviews that can be videotaped to give you an opportunity to answer those tough questions on the spot and be evaluated before it really counts.

## Be Realistic

The reality is this: becoming a doctor takes a minimum of 7 years (4 years of medical school and at least 3 years of residency). This requires complete dedication to this profession. During your residency, you will be expected to work very long and late hours. Most physicians work more than 40 hours per week and can have shifts anywhere from 8-5 to two 24-hour shifts per week. Also keep in mind that it is taking many students 2-3 years to be accepted to a medical school, so be prepared. Have a back-up plan in case you are not accepted right away.

# Financing Medical School

Your first step is to determine the actual cost of attending medical school for a year. These costs will vary widely depending upon the school and the part of the country in which you will reside. You can find information about tuition and fees at the Association of American Medical Colleges and the American Association of Colleges of Osteopathic Medicine websites (see Appendix A). Costs typically are much lower at a public institution in the state where you are a resident. However, because these costs are lower, it can be more competitive getting in. Entering a medical school as a non-resident can be more costly than attending a private school. You can also anticipate that costs will rise about five percent per year, each year you are in school.

In addition to the tuition and fees, you will need to factor in your overall cost of living. Some schools do a good job of adding up the entire list of expected costs for a year, so that you get a more realistic picture. If the medical school's website doesn't go beyond listing tuition and fees you can figure out actual costs for yourself. The school's Financial Aid office will use this or a similar list to determine a financial aid budget and a maximum amount of money you may receive from all sources during an academic year. These costs include:

Books and supplies	Equipment purchases
Room and board	Medical exams
Transportation (car maintenance or public transport)	Licensing exams
Miscellaneous personal expenses	Curriculum-related travel

You'll notice some things are not included in this list, such as relocation costs, family expenses (if you have acquired one), car purchase, debt, etc. You will need to determine your entire list of anticipated expenses.

Remember that although private schools may initially look more expensive, some actually have endowed awards in the form of grants, scholarships and low interest loans. This brings their costs more in line with some of the public institutions.

To obtain more specific information about financing medical school, check Chapter 19 in The Kaplan Newsweek Medical School Admissions Advisor, 2001 edition. You will find information on the Free Application for Federal Student Aid (FAFSA) form, the most common financial aid application used, as well as practical step-by-step advice on navigating this important path of financing your medical education. In addition, check the websites of the various medical schools of interest to you. Some have comprehensive information about financial aid at their institutions. Chapter 21 walks you through borrowing money to finance your degree and provides information on various loans for which you can apply.

One other consideration is to look at sources that will provide financial assistance in exchange for service or even "for free." The Kaplan Newsweek Medical School Admissions Advisor, 2001 edition has a chapter entitled "Finding Free Money." Various programs are detailed including Scholarships for Disadvantaged Students (SDS), Institutional Funds (money held by medical schools for awards based upon need or merit), Scholarships for Service (National Health Service Corps and Armed Forces Health Professions Scholarships), and Private Donor Funding.

**Be sure to leave plenty of time to fill out required applications and forms.**

## If You Don't Get In

If you are rejected, don't let it stop you from applying at least a second time. Having time off is becoming a reality for more and more pre-med students. Since it may take a few years to be accepted to medical school, look into options for your time off from school. Some students choose to continue their academic studies by obtaining a master's degree or entering a post-baccalaureate program. Other students take research positions or find employment in hospitals and clinics. You also have the option to participate in service organizations such as Peace Corps and AmeriCorps where you can work in various areas of health care. The most important thing to remember is that you need to continue getting medical experience and continue to show an interest in the medical field. Even if you cannot find a paying job in the medical field you can volunteer in local hospitals, hospices, or nursing homes in addition to a paid job. Many schools are looking for people who really want to be in their particular program. Therefore, if you continue to reapply, you let the school know you are serious about it. You won't get points for just perseverance, however. Conduct a thorough self-analysis to determine what you can do to improve your chances of admission. Examine with a critical eye your grades, MCAT scores, extracurricular activities (does it look like you really want to be a doctor?), personal statement, letters of recommendation, your performance in the interviews, and your applications. Perhaps there are some areas where you can make some improvements and therefore improve your chances for admission.

## Alternatives

The biggest question facing prospective medical students is "Why do you want to become a doctor?" That is, what aspects of becoming a physician interest you: helping others, the prestige of being a doctor, the salary, etc. What are your reasons for wanting to be a doctor? Have you ever considered other professions that may bring you the same rewards and job satisfaction that you are seeking from a career as a physician? There are a number of fields in health care that may suit your needs better.

Some other Career possibilities are:

Acupressurist	Hospital Administrator	Physical Therapist
Biologist	Lab Technician/Assistant	Physician Assistant
Cardiopulmonary Technician	Medical Technologist	Psychologist, Experimental
Chemist	Naturopathic Doctor	Radiologist
Chiropractor	Nutritionist	Research
Dentist	Nurse Anesthetist	Scientific Linguist
Dietitian, Research	Nurse Midwife	Speech & Hearing Therapist
EMT, Paramedic	Nurse Practitioner	Surgical Technician
Gerontologist	Nurse, Private	Therapist
Health Officer	Optometrist	Veterinarian
Health Technician	Pharmacist	

## Medical School Associations

American Medical College Application Service (AMCAS)

Association of American Medical Colleges

Section for Student Services

2450 N Street N.W.

Washington, D.C. 20037-1126

(202) 828-0400

Fax: (202) 828-1125

<http://www.aamc.org>

American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS)

5550 Friendship Blvd., Suite 310

Chevy Chase, MD 20815

(301) 968-4190

<http://www.aacom.org>

## Sample Questions from Medical School Interviews

1. What first hand information or experience do you have regarding the medical field?
2. Have you tried to imagine what the demands of medical school are like? How will you deal with them?
3. If you are not admitted to medical school, have you thought about how you will handle that problem? What are your alternatives?
4. What do you believe are important qualities for a prospective physician? Which of those qualities do you have?

### Self-awareness

1. Tell me about yourself?
2. How do you think a friend or a professor who knows you well would describe you?
3. What motivates you to put forth your greatest effort?
4. How do you determine or evaluate success?
5. What academic subjects did you like best? Least?
6. What led you to choose the career for which you are preparing?
7. What personal characteristics are necessary for success in your chosen field?
8. Are you interested in science?
9. Do you feel that you have a calling to help others? A bedside manner that cannot be taught?
10. Can you make the sacrifices that this career requires, including the expense of training, time requirements, and lack of sleep?

11. Are you prepared to deal with the potential for malpractice suits? Do you have the motivation to remain dedicated over the years of education and training?
12. Can you manage the stress that a physician's job entails?
13. Are you prepared to keep long hours diligently?

#### Weaknesses/Negatives

1. What major problems have you encountered and how did you deal with them?
2. What have you learned from your mistakes?
3. What do you consider to be your greatest weakness?
4. Did you ever have problems with your supervisor?

#### Skills/Abilities/Qualifications

1. What do you consider to be your greatest strengths?
2. Are you creative? Give an example.
3. What qualifications do you have that make you think you will be successful?
4. Why do you feel qualified for this job?
5. Why should we accept you over another candidate?

#### Values

1. What is your attitude toward working on weekends?
2. What part does your family play in your life?
3. What are the most important rewards you expect in your career?
4. Do you enjoy independent research?
5. In what kind of a work environment are you most comfortable?
6. How do you work under pressure?
7. What two or three things are most important to you in your job?
8. Do you prefer working with others or by yourself?
9. Under what conditions do you work best?
10. How do you feel about abortion? Euthanasia?
11. What do you do for fun?
12. What is your favorite book? What are you reading now?

**For a good overview of the entire medical school interview process, read Chapter 10 of Kaplan Newsweek Medical School Admissions Advisor, 2001 edition. You can find it in the CC Career Resource Library.**

## Medical School Web Sites

#### MCAT

- <http://www.aamc.org/students/mcat/start.html>
- <http://www.kaplan.com/mcat/>
- <http://www.princetonreview.com>
- <http://www.kaplan.com/dat/>

#### GRE

- [www.gre.org](http://www.gre.org)

#### DAT

- <http://www.ada.org/prof/ed/testing/dat/index.asp>

#### General Medical/Dental/Veterinary Information

- <http://www.aamc.org/>
- <http://falcon.cc.ukans.edu/>
- <http://www.cvmbs.colostate.edu/cvmbs/pvmpro.html>
- <http://www.vet.cornell.edu/>
- <http://www.med.cornell.edu/>
- <http://www.ama-assn.org> (*this is the American Medical Association*)
- <http://haas.berkeley.edu/>
- <http://www.css.edu/>
- <http://www.emory.edu/>
- <http://aacomas.aacom.org> (*the American Association of Colleges of Osteopathic Medicine site*)

<http://www.aamc.org/audienceamcas.htm> (*the Association of American Medical Colleges*)

<http://www.vmcas.org> (*the Association of American Veterinary Medical Colleges*)

<http://www.aavmc.org>

<http://cvmb.colostate.edu/cvmb/pvmpro.html>

<http://www.adea.org/links/default.htm>

<http://www.ada.org> (*the American Dental Association*)

#### Interview Questions

<http://interviewfeedback.com/meded/questionnaire.html> (*Site maintained by Johns Hopkins where recently interviewed applicants complete an online questionnaire regarding their interview experience at particular medical schools*)

#### Specific Schools

You can link to each of the medical schools participating through the Association of American Medical Colleges by logging on to <http://www.aamc.org>. You can link to each of the DO medical schools participating through the American Association of College of Osteopathic Medicine by logging on to [www.aacom.org](http://www.aacom.org).

**Note: We try to keep current with website information. If you find a vacant site or one that you feel would be of interest to other CC students, please let the Career Center know and we'll delete the vacant site or add the new one to this page. Thank you.**