

THE PRE-MED JOURNEY: A PARENT'S GUIDE

What Every Parent Needs to Know About Their Child's Path to a Career in Medicine

Renee Marinelli MD



hsafp.org





Table of Contents

The Essential ExamsOWhat is a Doctor Exactly?OHigh School Extracurriculars Toward Becoming a Doctor10How to Help Your Child Succeed Academically12Choosing the Right College for Your Child14What About Direct Medical (BS/MD) Programs?16	Understanding Your Child's Dream to Be a Doctor	04
What is a Doctor Exactly?OrHigh School Extracurriculars Toward Becoming a Doctor10How to Help Your Child Succeed Academically12Choosing the Right College for Your Child12What About Direct Medical 	The Long Road to Becoming a Physician	05
High School Extracurriculars Toward Becoming a Doctor10How to Help Your Child Succeed Academically12Choosing the Right College for Your Child12What About Direct Medical (BS/MD) Programs?16Planning Ahead for a Medical Education15Helpful Resources for Parents20	The Essential Exams	06
Becoming a DoctorICHow to Help Your Child Succeed Academically12Choosing the Right College for Your Child12What About Direct Medical (BS/MD) Programs?16Planning Ahead for a Medical Education19Helpful Resources for Parents20	What is a Doctor Exactly?	08
Academically Choosing the Right College for 14 Your Child 14 What About Direct Medical 16 (BS/MD) Programs? 16 Planning Ahead for a Medical Education 19 Helpful Resources for Parents 20		10
Your Child12What About Direct Medical (BS/MD) Programs?16Planning Ahead for a Medical Education15Helpful Resources for Parents26	•	12
(BS/MD) Programs? Planning Ahead for a Medical Education 19 Helpful Resources for Parents 20		14
Helpful Resources for Parents 20		16
	Planning Ahead for a Medical Education	19
		20

Understanding Your Child's Dream to Be a Doctor

So here you are, a parent of a high school student. Maybe your child is a freshman, or perhaps they are a senior. But they've made up their mind. THEY WANT TO BE A DOCTOR. You are proud, and your parents (their grandparents) are beaming from ear to ear. "My child is going to be a doctor! They're going to cure cancer, save lives, and make a difference in the world."

Your child has taken the first plunge into their pre-med journey. They've committed to a career that they've wanted to pursue ever since they put on their first play stethoscope and pretended to fix mommy's boo-boo. The world needs them! But... before they put on that white coat and take out that reflex hammer, they have a long way to go. This book is all about getting them there, from day one until they can walk into a patient's room and introduce themselves as "Doctor."

Being a physician is an amazing job! Your child will get to learn every day, work closely with others, and most importantly, make a meaningful difference in their patients' lives! However, becoming a physician is also a long path. The most important thing you can do as a parent to prepare your child to become a physician is to start understanding what it takes and what the process entails!

The first step in becoming a physician—or anything, for that matter—is ensuring that your child is doing it because they are genuinely interested in medicine. The worst reason to become a physician is because you, as their parent, are forcing them to, or because everyone else in your family is also a physician, and they feel pressured to become one too. The long path to becoming a physician will feel twice as long and hard if they pursue it for these external reasons.

Personal interest should be the main reason for whatever career your child ends up choosing!

This guide will serve as an overview of the physician path and things you can start thinking about doing at this point in their life.





The Long Road to Becoming a Physician

If your child is considering a career in medicine, it's important to understand the timeline and requirements involved. The path is long: 4 years of high school, 4 years of college, maybe 1-2 gap years, 4 years of medical school, another year of research, 3-7 years of residency, 1-2 years of fellowship, and then... they are a doctor! In total, becoming a full-fledged doctor can take around 15 to 22 years from the start of high school. This extensive journey requires dedication, hard work, and continuous support from family.

Why does it take so long? Let's look at some of the steps in detail.

1. High School: Your child must complete high school with great grades. Encourage them to take advanced courses in science and math and participate in extracurricular activities related to medicine.

2. College: In the United States, physicians must complete a bachelor's degree at a U.S. accredited university. Your child can choose any major, but they must complete specific pre-med courses. Additionally, they will need to take the Medical College Admission Test (MCAT).

3. Medical School: This lasts for at least four years and consists of two years of classroom learning and two years of clinical rotations. Your child will learn an incredible amount of information and gain practical experience.

4. Residency: After graduating from medical school, your child will enter a residency program in their chosen specialty. Residency programs vary in length from 3 to 7 years. This is when they truly learn the day-to-day skills needed to practice medicine.

5. Fellowship: Some physicians choose to pursue a fellowship after residency to gain additional training in a sub-specialty. This can add 1 to 3 years to their training.

6. Attending Physician: Finally, after all these years of education and training, your child will become a practicing physician.

This journey typically takes at least 15 years from high school to becoming an attending physician. It's a long-term commitment, but one that can be incredibly fulfilling.

Your understanding and support throughout this journey will be crucial for your child's success. Encourage them to stay motivated and focused, and be prepared to provide emotional and sometimes financial support as they navigate the long path to becoming a physician.

The Essential Exams

Part of becoming a doctor involves taking numerous tests. These exams ensure that only qualified individuals advance in this challenging field. Here are the key standardized tests your child will need to take:

SAT and ACT

These tests assess your child's readiness for college and are crucial for college admissions. Excelling in these exams demonstrates their ability to handle challenging coursework, a skill that is invaluable as they progress through their medical education.

Tips for Parents:

- Help your child find study resources and practice tests.
- Consider enrolling them in a test prep course if needed.
- Encourage early testing to allow time for retakes if necessary.

MCAT

The MCAT is the Medical College Admission Test, crucial for entry into medical school. It consists of four sections: Chemical and Physical Foundations of Biological Systems, Critical Analysis and Reasoning Skills, Biological and Biochemical Foundations of Living Systems, and Psychological, Social, and Biological Foundations of Behavior.

Tips for Parents:

- Provide a supportive environment for studying.
- Help your child find resources and practice materials.
- Encourage practice tests and consider an MCAT prep course.





The Boards

USMLE Step 1:

This is the first of three USMLE tests (United States Medical Licensing Exams) taken during the second year of medical school. It is a pass/fail exam that covers basic medical sciences such as pharmacology, physiology, anatomy, and pathophysiology. This foundational knowledge is critical for understanding the complexities of human health and disease.

USMLE Step 2 CK:

Taken during the fourth year of medical school, Step 2 CK (Clinical Knowledge) is a scored exam that builds upon the basic sciences covered in Step 1. It emphasizes disease and diagnosis, testing students on their ability to apply medical knowledge in clinical settings.

USMLE Step 3:

The final exam in the USMLE series, Step 3 assesses the ability to manage patient care and make clinical decisions. Taken during residency, it covers advanced clinical scenarios, such as emergency responses and managing complex medical conditions, to evaluate readiness for independent practice.

Tips for Parents:

- Understand the importance of these exams and support your child's preparation.
- Encourage effective time management.
- Provide emotional support during stressful periods.

Specialty Boards

Even after the USMLE, your child will need to take additional board certification exams in their chosen specialty. For example, internal medicine doctors take their boards after their third year of residency and every ten years thereafter. Interventional radiologists take exams after residency and fellowship.

Bottom Line:

If your child wants to be a doctor, they must be prepared for continuous testing throughout their career.

What is a **Doctor Exactly?**

Your perspective of what a doctor does daily might be shaped by TV, your own physician, or other factors. The reality is that what one doctor does can be very different from another. Some doctors don't even see patients. You don't have to know what type of doctor your child wants to be now, but it's good to have some familiarity with different specialties.

Pathologist

If your child loves looking in a microscope, this might be the specialty for them. Pathologists may go weeks without seeing a live patient but are essential to medicine. They diagnose patients by examining tissues and cells, helping other doctors understand diseases.

Neurosurgery

Neurosurgeons primarily perform surgery on the brain and spinal cord. The training is long and tough, but neurosurgeons are passionate about their field and make significant impacts through their work.

Plastic Surgery

Plastic surgeons deal with cosmetic and reconstructive procedures. They help burn victims, perform reconstructions after cancer surgery, and handle various cosmetic issues to improve patients' quality of life.

Dermatology

Dermatologists are skin specialists dealing with everything from cosmetic issues to life-threatening skin cancers. They understand and treat conditions affecting the body's largest organ.

Pediatrics

Pediatricians specialize in the medical care of children, providing routine care and treating a wide range of conditions from common illnesses to complex diseases in children.





Psychiatry

Psychiatrists focus on mental health, diagnosing and treating mental illnesses. They work in various settings and collaborate with other healthcare professionals to provide comprehensive care.

Orthopedic Surgery

Orthopedic surgeons address issues related to the bones and muscles. They treat fractures, perform joint replacements, and repair ligaments, helping patients regain mobility and function.

Family Medicine

Family medicine doctors provide comprehensive care for patients of all ages, from infants to the elderly. They handle routine checkups, minor surgeries, and manage chronic conditions.

Radiologist

Radiologists diagnose diseases using imaging techniques such as x-rays, CT scans, and MRIs. They also perform procedures with imaging guidance.

Radiation Oncologist

Radiation oncologists use x-ray energy to target and eradicate cancer in the body, playing a crucial role in cancer treatment.

Internist

Internal medicine physicians, or internists, manage routine and complex medical issues in adults. They can further specialize in areas like cardiology or gastroenterology.

Anesthesiology

Anesthesiologists manage pain and sedation during surgeries, ensuring patients are comfortable and safe while surgeons perform operations. They are critical in both surgical and pain management settings.



High School Extracurriculars Toward Becoming a Doctor

While not necessary, gaining first-hand experience in the healthcare field can be valuable. It offers insight into what a physician does and can strengthen college applications. Here are some activities to consider:

Clinical Exposure

Encourage your child to gain insight into what a physician does through clinical exposure. This can include:

- Hospital volunteering
- Clinic volunteering
- Nursing home volunteering

Tips for Parents:

- Help your child identify local hospitals or clinics where they can volunteer.
- Use family or community connections to find opportunities.
- Encourage them to start during school breaks to balance with academics.

Physician Shadowing

Shadowing involves observing a physician's practice and daily activities. This can occur in outpatient clinics or hospitals and requires persistence to find opportunities.

Tips for Parents:

- Assist your child in contacting local doctors or hospitals to discuss shadowing possibilities.
- Use family or friend contacts who are in the medical field to find shadowing opportunities.



Research

Conducting research is also a significant aspect of being a physician, especially in academic settings. Encourage your child to seek out research opportunities if they enjoy science experiments.

Tips for Parents:

- Talk to your child's guidance counselor and science teachers to identify research opportunities.
- Help them contact local university professors to find projects of interest.

Special Programs

Consider university-sponsored summer programs for a more formal experience. Here are a few options:

- Georgetown Medical Academy: Offers a snapshot of medical school with hands-on projects and case studies. [Learn more]
- USC Summer Programs for High School Students: Provides a four-week academic experience with hands-on workshops and lectures. [Learn more]
- University of Michigan Math and Science Scholars Program: Introduces students to current developments in sciences and math. [Learn more]
- National Youth Leadership Forum: Medicine: Offers hands-on medical experiences and clinical skills rotations. [Learn more]

Tips for Parents:

- Research similar programs at local universities.
- Encourage your child to apply early and make the most of these learning opportunities.

These activities and programs can help your child gain valuable experience, making them a stronger candidate for college and ultimately, medical school.



How to Help Your Child Succeed Academically in High School

Supporting your child's academic success in high school is crucial for their journey to becoming a doctor. Here are some key strategies:

Find a Reason to Enjoy Studying

Help your child find aspects of studying that they enjoy. When they see value in what they are learning, they are more likely to stay motivated and excel.

Tips for Parents:

- Encourage them to relate their studies to real-life situations.
- Help them set small, achievable goals to build confidence.

Choose Friends Carefully

Your child's peer group can significantly influence their academic performance. Encourage them to surround themselves with friends who have similar academic goals.

Tips for Parents:

- Talk to your child about the importance of choosing friends who support their academic ambitions.
- Foster environments where they can meet like-minded peers, such as study groups or academic clubs.

Find a Study Buddy or Study Group

A study buddy or group can provide different perspectives and mutual support, enhancing understanding and retention of material.

Tips for Parents:

- Help your child identify friends or classmates with similar study habits and goals.
- Encourage regular study sessions and provide a conducive environment for group study.



Make It an Expectation, Not a Goal

Set the expectation for high academic achievement. This mindset shift from "I want to" to "I need to" helps your child stay focused and resilient.

Tips for Parents:

- Discuss the importance of maintaining high standards and consistent effort.
- Celebrate achievements to reinforce the expectation of success.

Avoid Shortcuts

Encourage your child to complete their work thoroughly and on time, avoiding lastminute cramming.

Tips for Parents:

- Monitor their study habits and provide gentle reminders about deadlines.
- Emphasize the long-term benefits of consistent, diligent work.

Remove Distractions

Help your child minimize distractions, particularly from social media and other nonessential activities during study time.

Tips for Parents:

- Set rules for study times and technology use.
- Create a quiet, distraction-free study area at home.

Figure Out What Works Best

Every student has unique study preferences. Help your child discover and stick to the methods that work best for them.

Tips for Parents:

- Encourage experimentation with different study techniques.
- Support their choices once they find effective methods.

Choosing the Right College for Your Child

Now that you have an overview of what is required to become a physician, let's focus on a very important step: picking a college! Here's how to help your child choose a college where they will be happy and successful as a pre-med.

Where Will They Be the Happiest?

College can be stressful, especially for pre-med students. Your child will need to achieve great grades, participate in extracurricular activities, and score well on the MCAT. One of the most important aspects of doing well is finding a college where they will be happy and comfortable.

Questions to Consider:

- Will they have optimal support from family and friends?
- Is the environment collaborative?
- Is there support from the faculty?
- Would they feel more comfortable at a large or small university?
- Does the campus feel inviting?





Does the College Offer a Program That Interests Your Child?

Students can major in anything they want, but it's important to think about what aligns with their interests and pre-med requirements. Make sure the college offers strong programs that support their medical aspirations.

How Much Does the Specific College Cost?

College is expensive, so it's important to consider tuition, room and board, and other expenses. Discuss what you can afford and explore scholarships and financial aid options. This will help you determine if you have enough funds to support your child's education.

How Prestigious Is the School?

While attending a prestigious college can be beneficial, it is not the only factor that medical schools consider. Grades, MCAT scores, and extracurricular activities are often more important.

Example:

• An applicant with a 4.0 GPA from a state college may be favored over a 3.5 GPA from an Ivy League school if other qualifications are strong.

Bottom Line:

Don't choose a college solely based on prestige. Use these other tips to pick a school that will support your child's success as a pre-med.



What About Direct Medical (BS/MD) Programs?

The college application season is one of the most arduous parts of any high school student's career. It requires dedication and time to be spent on essays, interviews, financial aid applications, and more. The medical school application process follows a similar path but is even more intense. The acceptance rate to medical school is about 41%, making it very competitive.

Why go through this twice? BS/MD programs offer a combined bachelor's and medical degree, allowing students to bypass the traditional application process to medical school. This is particularly appealing as it ensures a spot in medical school from the start of their undergraduate education.

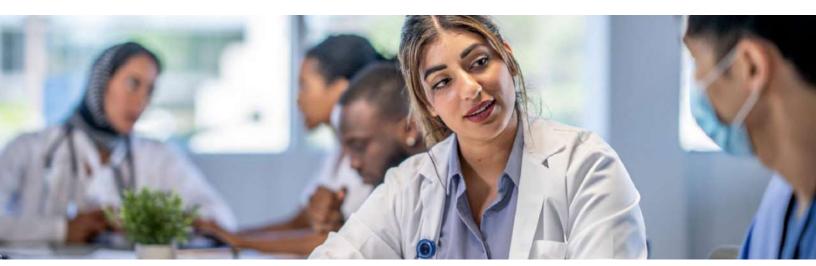
Benefits of BS/MD Programs

1. Extensive Connections

Students in BS/MD programs often join a group of accomplished peers and faculty with extensive connections in the medical field. This network can provide support and opportunities throughout their educational journey.

2. Scholarships and Grants

Being part of a BS/MD program can enhance applications for scholarships and grants, as it demonstrates a high level of commitment and capability.





3. Personal Attention and Support

Faculty in BS/MD programs are often highly invested in the success of their students. They provide personalized attention, helping with scheduling issues, academic support, and moral support, especially when students are away from home.

4. Special Seminars

BS/MD programs may offer special seminars where students meet and learn from renowned medical professionals, providing insight into various medical fields and career paths.

5. Academic Flexibility

BS/MD students have more flexibility in choosing their undergraduate majors and activities, allowing them to explore a broader range of interests without the pressure of applying to medical school.

Bottom Line: These programs aim to nurture well-rounded, humane doctors by providing a supportive and enriching environment from the start of their college journey.



Mastering the BS/MD Application Process

When helping your child apply to BS/MD programs, consider the following steps:

1. Narrow Down Schools

Most guidance counselors recommend applying to 8-12 colleges. For BS/MD programs, it's typical to apply to around 25 different programs. This ensures a better chance of acceptance but can be overwhelming. Make sure to balance this with regular undergraduate applications.

2. Create a Balanced List

Include safety schools, target schools, and reach schools. Research each BS/MD program's specific requirements and ensure your child meets or exceeds these criteria.

3. Start Early

BS/MD applications are detailed and require significant preparation. Encourage your child to begin working on their applications, essays, and securing recommendations well in advance.

4. Seek Guidance

Utilize high school counselors, BS/MD admissions experts, and online resources to understand the nuances of each program and to ensure your child's application stands out.





Planning Ahead for a Medical Education

9th Grade: Narrow Down Interests

Encourage your child to explore various academic subjects and extracurricular activities to identify their interests. This exploration will help them build a strong foundation for their future applications.

10th Grade: Plan and Prepare

Help your child plan their high school schedule, including advanced courses, volunteer positions, and research opportunities. Encourage them to start preparing for the SAT/ACT early.

11th Grade: Focus and Finalize

By junior year, your child should focus on excelling in their academics, completing standardized tests, and narrowing down their college list. They should also continue participating in meaningful extracurricular activities.

12th Grade: Apply and Interview

During senior year, support your child as they complete college applications, write essays, and prepare for BS/MD interviews. Encourage them to stay organized and manage their time effectively to meet all deadlines.

By planning strategically and utilizing available resources, your child can successfully navigate the BS/MD application process and secure a spot in a combined medical program.



Helpful Resources for Parents of Aspiring Medical Students

As parents, supporting your child through their journey to becoming a doctor involves providing them with access to valuable resources. Here are some essential tools and websites that can help guide you and your child through the pre-med and medical school preparation process.

Association of American Medical Colleges (AAMC)

This comprehensive website is invaluable from high school through becoming a physician, offering numerous resources and guides to help determine if a medical career is right for your child. Learn more

Choosing a Medical Career

Get familiar with the basics of being a pre-med student. Learn more

Aspiring Docs Fact Sheets

Understand the fundamental aspects of the pre-med pathway. Learn more

Anatomy of an Applicant

Learn about the core competencies that medical schools value most. Learn more

Paying for Medical School

Considering the high costs, it's wise to start financial planning early. Learn more

Aspiring Docs Diaries

Follow the experiences of pre-meds, medical students, and residents. Your child can consider applying to share their own journey. <u>Learn more</u>

MedSchoolCoach

MedSchoolCoach provides expert guidance through every step of the medical school journey. Our services include personalized tutoring, application consulting, and interview preparation. Our team of experienced physicians and medical school admissions experts is dedicated to helping students achieve their dreams of becoming doctors. Learn more about how we can support your child's path to medical school. [Learn more]



American Medical College Application Service (AMCAS)

Used by most U.S. medical schools, AMCAS serves as the primary application method. Familiarize yourself with this service early. <u>Learn more</u>

American Medical Student Association (AMSA)

This student-governed, national organization addresses the concerns of physiciansin-training. Explore its resources early, and check if your child's college has an AMSA chapter to join. <u>Learn more</u>

Prospective Doctor

This site provides free resources for those considering or pursuing a career in medicine. <u>Learn more</u>

The Student Doctor Network (SDN)

SDN offers extensive resources suited for students interested in medicine, especially useful for upperclassmen. Exploring this site can be very beneficial. Learn more

Medical School Websites

To understand what medical schools seek in applicants, visit and review the websites of various institutions.

By leveraging these resources, you can help your child stay informed and prepared throughout their pre-med journey. Encouraging them to explore these tools early on will provide them with a strong foundation as they work towards their goal of becoming a doctor.





Join us in empowering high school students who dream of becoming doctors.



CONTACT US

hsafp.org