

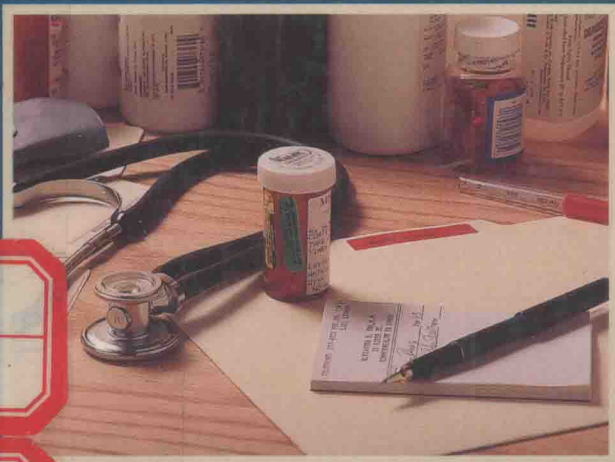
**A R C O**

**GETTING INTO**

# MEDICAL SCHOOL

**T O D A Y**

THIRD EDITION



---

The inside facts  
every pre-med  
should know—from  
three recent  
med school grads!

ott H. Plantz, M.D., with Nicholas Y. Lorenzo, M.D., and Jesse A. Cole, M.D.



# GETTING INTO MEDICAL SCHOOL TODAY

Scott H. Plantz, M.D.

*with*

Nicholas Y. Lorenzo, M.D.

Jesse A. Cole, M.D.

MACMILLAN • USA

Third Edition

Macmillan General Reference  
A Simon & Schuster Macmillan Company  
1633 Broadway  
New York, NY 10019

Copyright © 1996, 1993, 1990 by Scott H. Plantz, M.D., Nicholas Y. Lorenzo, M.D.,  
and Jesse A. Cole, M.D.

All rights reserved  
including the right of reproduction  
in whole or in part in any form

An Arco Book

MACMILLAN is a registered trademark of Macmillan, Inc.  
ARCO is a registered trademark of Prentice-Hall, Inc.

**Library of Congress Cataloging-in-Publication Data**

Plantz, Scott H.

Getting into medical school today / Scott H. Plantz, with Nicholas  
Y. Lorenzo, Jesse A. Cole.

p. cm.

“ARCO.”

Previous eds. published by Prentice Hall.

Includes bibliographical references.

ISBN 0-02-861064-4

1. Medical colleges--United States--Admission. 2. Medical  
colleges--United States--Entrance requirements. I. Lorenzo,  
Nicholas Y. II. Cole, Jesse A. III. Arco Publishing. IV. Title.

R838.4P53 1996

610'.71'173--dc20

96-17723

CIP

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1

# GETTING INTO MEDICAL SCHOOL TODAY

*For my mother, Pauline Christensen Plantz,  
without whose support this book  
could not have been written.*

# FOREWORD

*Getting Into Medical School Today* is a new, up-to-date book all students considering a medical career should read. The authors have adopted a no-nonsense, step-by-step approach pre-medical students can follow to reach their career goals. The book provides detailed “do’s” and “don’ts” of high school and college preparation for a medical career. Most important, it helps students avoid the pitfalls and negotiate the stumbling blocks encountered early in their college years.

The authors dispel many of the romantic ideas not only about how to get into medical school, but about what medical school itself entails. This book is pragmatic. Several chapters are devoted to topics such as how to prepare for college, and select college courses and instructors. For the student lacking an experienced premedical advisor, this book fills the gap, providing sound recommendations in selecting an appropriate curriculum for completing a premedical education. The authors pull no punches; they emphasize both the work required as well as the “games” that must be played to make one’s way to medical school acceptance. Detailed chapters discuss issues like completing application forms, preparing for the MCAT, obtaining letters of recommendation, selecting medical schools, and preparing for medical school interviews. They also address practical issues like housing and financial aid.

Nothing I have read could be more practical, realistic, or useful for high school or college students contemplating a medical career.

Marion Sitzmann, Ph.D., O.S.B.  
Professor of English and Speech  
Premedical Advisor, Creighton University

# PREFACE

This book will not tell you anything you will not eventually learn on your own. It will, however, tell you what you need to know to get into medical school before it is too late!

Getting into medical school is a game. This book will teach you the rules.

Scott H. Plantz, M.D.  
Nicholas Y. Lorenzo, M.D.  
Jesse A. Cole, M.D.

# ACKNOWLEDGMENTS

I have been learning all my life. Almost every individual I have met has taught me something. Teachers taught me facts that I occasionally remember but most often forget. Administrators taught me to accept red tape as a fact of life. Some of the information I have acquired has come from successful students who taught me how they overcame a very selective system. The most important information I have learned came from observing students who did not reach their goals.

Special thanks to Randolph P. Scott, Pharm.D., M.D., Ph.D., a master at getting around the system. To Phillip R. Hynes, M.D., whose ability to overcome severe setbacks is inspirational. To my close friend, Jesse A. Cole, M.D., whose level-headedness has continued to provide a stabilizing influence in my life. For their loyal support: Nicholas Y. Lorenzo, M.D.; Ed Arevalo, M.D.; Jenifer Arevalo, M.A.; Julie Overcash, M.D.; Cliff O'Callahan, Ph.D., M.D.; Rebecca Schmidt, M.A.; Jeffrey Meade, M.D.; Theodore Yee, M.D.; Wayne Wolfrey, M.D.; and Jeffrey Rapp, M.D., whose friendship made medical school a tolerable experience. To my friends Charles Boehrer, J.D., Paul Crawford, J.D., Joseph Vandenack, J.D., Bruce Bohlen, Daniel Kerr, Steve Marvel, and Mark Janssen, who stuck by me when the going got tough.



Several instructors made a difference in my education, not only because they were excellent teachers, but because they were people I strove to emulate. Three high school instructors are especially noteworthy: Dale Feeken, Donald Retzlaff, and Patty Olsen, who taught me respectively to think, to be organized, and to speak in public. Special thanks to my two premedical advisors and friends, Father Marion Sitzmann, Ph.D. and Douglas Lund, Ph.D., each of whom recommended me for medical school. To the late Harold Heaston, C.P.A., the most challenging instructor I have ever had. Finally, my neuroanatomy instructor, Professor Alvin Earle, Ph.D. whose kindness and friendship made medical school a survivable experience.

Most of all, I thank my parents, Alan and Pauline Plantz, and brother, Brad, who taught me that success in life requires hard work, perseverance, tolerance, confidence, and luck, and holding onto that success requires much much more. Finally, to Sharon Wallahan, whose love and affection held steady through my many trials and tribulations.

Scott H. Plantz, M.D.

# CONTENTS

FOREWORD .....	ix
PREFACE .....	xi
ACKNOWLEDGMENTS .....	xiii
1. MEDICINE AS A CAREER .....	1
2. HIGH SCHOOL PREPARATION AND COLLEGE SELECTION .....	9
3. COLLEGE PROFESSORS/ADVISORS .....	15
4. FRESHMAN CLASSES .....	21
5. MAJOR SELECTION .....	27
6. CORE REQUIREMENTS .....	33
7. SCIENCE GRADE MAINTENANCE .....	35
8. STUDY HABITS .....	41
9. PART-TIME JOBS .....	47
10. COLLEGE ACTIVITIES .....	53
11. APPLICATION FORMS .....	59
12. THE MEDICAL COLLEGE ADMISSION TEST .....	77
13. LETTERS OF RECOMMENDATION .....	81
14. CURRICULUM VITAE PREPARATION .....	85
15. WHERE TO APPLY .....	91
16. INTERVIEWS .....	95

17. MEDICAL SCHOOL SELECTION AND FINANCIAL AID.....	103
18. SPECIAL APPLICANTS: MINORITIES, OLDER STUDENTS, AND WOMEN.....	115
19. WHAT TO DO IF YOU DO NOT GET IN .....	123
20. MEDICAL SCHOOL .....	135
21. RESIDENCY .....	145
22. GOALS, PRIORITIES, AND CONCLUSIONS.....	155
ACCREDITED U.S. MEDICAL SCHOOLS .....	157
ABOUT THE AUTHORS .....	162

professions. As a physician you will assume the role of a healer, confidant, and role model for the community in which you live. A doctor's influential position is noteworthy, but it is not without sacrifice. Your time will never again be your own and your personal life will constantly be scrutinized by the people in your community.

## TRAINING

Becoming a physician merely begins with the completion of medical school. Its achievement is a lifelong task. Training will dominate some of the best years of your life. In addition to your high school education, you will spend three to four years in college. As a college student, you will be required to take several difficult science courses and your overall performance must be good to excellent in the classes you take. While your friends are enjoying the social events of the week, you will be making yet another trip to the library.

Medical school is not fun and games. If you thought college was difficult, look out! The often quoted phrase "Medical school is like trying to take a sip from a fire hydrant" is stated for good reason. Medical school at most institutions requires four years. The first two years will make your college courses seem easy, as you will be required to take 24 to 28 hours of rigorous science classes per semester. A frequent description of the first two years is, "The material is not really that difficult, it's just the never-ending volume that makes the whole process a challenge." The final two years of clinical sciences are much more enjoyable. Although the time commitment is substantial you will finally have a role in direct patient management.

Residency in most medical specialties is a minimum of three to four years after medical school for family practice, pediatrics, internal medicine, neurology, emergency medicine, obstetrics and gynecology, psychiatry, radiation oncology, radiology, anesthesiology, and occupational medicine. Most surgical specialties require a five to seven year commitment.

The years of training and personal sacrifice should make you take a long hard look at the medical profession. Although interesting and challenging, the sacrifice of yourself and your present or future family should be weighted heavily in your decision to choose medicine as a career.

*"You move, seemingly not fast enough, to the head of the bed and a face from a horror movie stares up at you. Blood bubbles and*

*froths out through the nose and mouth and oozes slowly down the cheeks to trickle onto the bed in streams like molten lava.*

*'Suction!' You hear yourself speak in a voice half an octave above normal. A hand unseen places into one of yours a hissing plastic rod. With your hand you reach down to open the bloody lips and pry apart the jaws to insert the vacuum tube and suck out the blood and vomitus so the patient can breathe. But the mouth . . . won't . . . open!"*

## FINANCIAL

The financial debt incurred as a result of selecting a medical career is often substantial. In addition to paying for four years of college, you will pay tuition costs of \$2,500 to \$30,000 a year for your medical training.

Although you will be compensated during your residency, the salary is low considering the loan payments you may be making. Most residents earn \$20,000 to \$30,000 per year. For this amount, the work load is staggering. It is fairly common for a resident to work a 120-hour work week on a regular basis. A surgeon summed up his residency training by stating "I learned not to total up how many hours a week I worked. It was much easier to keep track of the hours I spent at home." Another indicated "If they would only pay us minimum wage I would be rich! Do you realize I earn less than \$3.65 per hour?"

If your goal in life is wealth, there are much easier ways of attaining financial security than selecting a medical career. While it is true most doctors make incomes ranging from \$80,000 to \$120,000 a year, many physicians accept the traditionally more challenging and interesting university-based academic hospital positions which pay less. Since you will be 32 to 35 years old before you start earning a large salary and you will have approximately \$50,000 to \$150,000 in debts, it may be much easier to attain wealth in a business career.

*"A plastic collar wrapped around the patient's neck, placed in the field by the paramedics as protection against further injury to the neck, prevents opening the airway. 'Doctor, look at his lips!' one nurse shouts as she begins to cut away the patients clothing, stiffened by drying blood and dirt. Through the sheen of red you see the lips are now a frightening shade of purple. Even as the second nurse removes the stethoscope from her ears after taking a pulse and blood pressure reading and begins to*

*“speak, you know what she will say, but you don’t want to hear it. ‘We’re losing him!’ You refrain from offering a silent prayer because there isn’t time.”*

## HELPING PEOPLE

The opportunity to help people is a major attraction to the medical profession. One only has to see the joy on the faces of a young patient and his parents at discharge after recovery from what seemed to be a terminal illness to appreciate the unique opportunity physicians have to affect peoples’ lives. Following the course of a car accident victim with multiple organ injuries and in a comatose state from the emergency room to discharge, fully recovered, four weeks later gives the physician much satisfaction. Cure, however, is not always the goal in patient care. Palliatively treating a terminally ill cancer patient, enabling him to go home and enjoy quality, albeit limited, time with his family and friends can be a fulfilling role for the physician.

Caring for sick people is not a glamorous role. When people are sick they usually exhibit their worst behavior. Sickness transforms many people from likable human beings to demanding tyrants. They are not happy to see you because they do not feel well. If you cannot cure them quickly their frustration with the situation may lead to an unhappy patient-physician relationship. The image of a physician as a knight in shining armor is quickly tarnished by patients who cough on you, vomit on you, or worse! The glamor of medicine fades quickly in the reality of a busy hospital.

*“ ‘Doctor, the pulse is weak at 40 and the blood pressure is 80/0.’ The first nurse has the upper clothes off—the patient suddenly becomes human. My god, she can’t be more than 15! The chest moves, but feebly, the muscles of respiration weakened by the lack of air. She is breathing some, but not enough. A vicious cycle is unfolding before your eyes. The resistance to air flowing into her lungs is increased by the injuries to her nose and mouth. She needs more strength to overcome this—but the harder she struggles to breath, the weaker she gets without air. Soon, she will stop breathing entirely. It seems like hours. A minute and 27 seconds have passed.”*

Few of your patients will be the nice, little old lady who lives down the street. Some of them, especially in university or inner city hospi-

tals where you will probably train, will be indigent patients, most of whom do not take care of themselves. They care as little for your help as they do for themselves. These individuals are often jobless, homeless, and without families. As a result, many of them have lost their personal dignity. Often they have chronic recurring diseases exacerbated by their lack of ability or desire to seek early medical care. The patient is passive, shows you little respect and will often disregard your medical advice. Yet, you will spend many hours of your day and night treating these individuals. Caring for a patient who has lost a leg because of the arterial blockage caused by his smoking, and watching him sneak into a bathroom for a cigarette while the toes on the other foot turn blue from the same process, is to incur the frustration you will experience time and again as a healer.

*“Why is her heartbeat so slow? If she is in shock from bleeding, it should be fast! Maybe she is bleeding into her head—that would cause bradycardia, but then her blood pressure should be high. But not if she is bleeding internally. The cardiac output is the product of the stroke volume multiplied by the heart rate with a value of 5 liters per minute in a normal 70 kilogram male at rest. A million useless facts, the end result of countless hours of study suddenly crowd your mind—all except for the one needed to save this girl’s life.”*

## IDEALS

The medical school experience will radically change your perception of life, death, suffering, and sacrifice. A number of interesting studies have been done on medical students and physicians. One study suggested that three experiences truly change a person’s life: war, becoming a mother, and becoming a physician. Doctors have one of the highest suicide rates in the United States, second only to dentists. Another study analyzed professional student idealism. Medical students scored the highest in idealistic attitudes as freshmen compared to other professionals. However, by their senior year, they scored the lowest in idealism and highest in cynicism.

*“ ‘Doctor, what are you going to do?’ asks the nurse, an edge of panic creeping into her voice. Her nose is broken, you can’t put a tube into her lungs through there. Even if her mouth opens, you won’t be able to stretch out her neck enough to put in the tube.*

*Amidst the noise of the emergency room and the jumble of thoughts racing through your head an idea takes hold and repeats itself incessantly . . . something you knew from the start but refused to acknowledge until now. I can't do that—I've never done it before! Even as you begin to speak. 'Get me a . . .'*

Medicine, for all its trials and tribulations, is a rewarding profession! Few physicians would select a different career if they had a choice to live their lives again. Yet, approaching medicine in a realistic manner is important. You must have an appreciation for what you are getting yourself into.

*"The smooth neck is surprisingly free of blood; it resembles a stained wood log from the iodine disinfectant. One nurse stands holding the head between her hands to keep the neck from moving, the other across the patient ready to assist. With a tremble you attribute to high circulating levels of epinephrine your left hand descends to the groove of bone at the base of the throat where previously nestled a heart shaped pendant. Moving straight up the skin of the neck your fingers feel the faint grooves of the trachea, followed by a small ridge, not unlike a speed-bump, you recall your instructor had said—the cricoid cartilage. Just above this is a soft depression, not larger than the tip of your finger. You repeat the process to confirm the landmark and though you wouldn't admit it, delay a bit to give somebody that knows what they're doing a chance to show up."*

If you are undecided about a medical career take time to experience the profession as much as possible. As a high school student or freshman, try to find a volunteer or part-time position in a hospital. Be sure to experience the profession vicariously. The list at the end of the chapter contains books that are both positive and negative regarding a medical career. Take the time to read several books from both extremes. Do not let this chapter discourage you, but do take the time for an honest look at your motivations for selecting a medical career. Medicine is a hard road and a hard life. Most doctors believe it is worth it.

*"You place your middle finger below the cricoid cartilage and the index finger above to stretch and fix the skin in place, leaving the depression unseen but marked by the finger's perimeter. Your*



*right hand holds the handle of the scalpel correctly, as you were taught, with the butt of the handle nestled in the palm of your hand, the index finger resting above the stem of the blade and steadied by the grasp of the thumb and middle finger. You press down upon the skin and it parts, but only slightly. With more confidence you retrace the previous path, pushing through the skin, and are rewarded with a thin smile of blood. Taking but a second, you push the tip of your finger into the incision and feel the depression—the cricothyroid membrane. The nurse pats away the blood as you withdraw your finger. Using the front edge of the scalpel blade, you cut through the thin, tough membrane into the tracheal airway. Droplets of blood spew into the air like a geyser as the patient coughs reflexively. Dropping the scalpel you pick up the tracheostomy tube and with some difficulty force it into the opening. Quickly you remove the inner obturator, attach a ventilation unit, and rhythmically squeeze the black plastic bag, pumping pure oxygen into her lungs. Her lips are still blue, and, in your heart, you know you're too late."*

## BOOKS YOU SHOULD READ

Gordon, Noah, *The Death Committee*. Fawcett, 1969.

Gross, Martin L., *The Doctors*. Dell, 1967.

Illich, Ivan, *Medical Nemesis: The Expropriation of Health*. Pantheon, 1976.

Karp, Lawrence E., M. D., *The Hospital: The View From Bellevue*. Ace/Charter, 1979.

Mendelsohn, Robert S., M. D., *Confessions of a Medical Heretic*. Warner Books, 1980.

Nolen, William A., M. D., *Making of A Surgeon*. Random House, 1970.

Seager, Stephen B., M. D., *Emergency*, Zebra Books, 1983.

Shem, Samuel, M. D., *The House of God*. Dell, 1981.