

Medicine

Career Opportunities

Physician • Family Physician
Internist • Pediatrician
Podiatrist • Physician Assistant
Related Fields



Average Salary Range

\$100,000 – \$250,000 plus

Educational Requirements

Students interested in becoming a physician should take the most challenging high school courses available in science, math and English. To enter medical school, students must have a bachelor's degree with a high grade point average in a pre-medical program or other related major. They must pass a national examination (MCAT) and undergo extensive interviews.

Upon completion of medical school, the M.D. or D.O. degree is granted. Most physicians then enter post-graduate training (internships and residencies), receiving specialized instruction and practice. The length of post-graduate training is determined by the area of specialty.

Educational Institutions

Eastern Virginia Medical School
Edward Via College of Osteopathic Medicine
University of Virginia
Virginia Commonwealth University

Professional Associations

Medical Society of Virginia
4205 Dover Road
Richmond, VA 23221
(804) 353-2721
www.msv.org

American Osteopathic Association
142 E. Ontario St.
Chicago, IL 60611
1-800-621-1773
www.aoa-net.org

American Medical Association
515 N. State St.
Chicago, IL 60610
(312) 464-5000
www.ama-assn.org

American Association of College
of Osteopathic Medicine
5550 Friendship Blvd., Suite 310
Chevy Chase, MD 20825
(301) 968-4100
www.aacom.org

Association of American Medical Colleges
www.aamc.org

Physicians diagnose and treat human diseases and injuries and practice preventive medicine. Some also conduct research and/or teach in medical schools. Physicians receiving M.D. degrees are Doctors of Medicine, while those who receive D.O. degrees are Doctors of Osteopathic Medicine. Virginia's three medical schools all offer the M.D. degree.

Primary care physicians are in high demand both in Virginia and nation wide. They provide ongoing care to individuals and families, consulting with or referring to specialists when necessary. There are separate sections within this manual on the primary care areas of family medicine, internal medicine and pediatrics.

Specialists diagnose and treat illnesses, conditions and/or injuries related to a specific branch of medicine or part of the human body. Descriptions of some medical specialties follow:

- Anesthesiologists administer anesthesia (numbness or sleep) to patients who undergo surgery.
- Cardiologists treat heart diseases.
- Dermatologists treat skin conditions.
- Gastroenterologists diagnose and treat disorders of the digestive system.
- Geriatricians specialize in the specific health care needs of the elderly.
- Gynecologists educate patients in the prevention and treatment of disorders of the female reproductive system.
- Neurologists specialize in brain and central nervous system disorders.
- Obstetricians care for pregnant women and deliver babies.
- Oncologists treat patients with cancer.
- Ophthalmologists diagnose and treat eye disorders.
- Orthopedists educate patients in the prevention of skeletal deformities or ailments and treat these ailments.
- Osteopathic physicians emphasize a whole-person approach to patient care that emphasizes wellness and prevention. D.O.S. often use a system of hands-on diagnosis and treatment called osteopathic manipulative medicine that can reduce pain, increase range of motion and contribute to overall health by improving the body's structure and functions.
- Pathologists interpret and diagnose changes in tissue caused by disease.
- Physiatrists specialize in physical and rehabilitative medicine.
- Psychiatrists educate patients in the prevention of mental illnesses, and they study and treat mental illnesses.
- Pulmonologists treat lungs and respiratory systems.
- Sports medicine physicians treat and help prevent athletic injuries.
- Surgeons perform operations to correct deformities, repair injuries, treat diseases and improve functions of patients. Among the many subspecialties are neurosurgery (brain), orthopedic surgery (bones) and cardiothoracic surgery (hearts and lungs).
- Urologists treat urinary tract disorders.

A new Osteopathic School of Medicine is at Virginia Tech.

Family Physician

Family physicians are physicians educated and trained in family practice — a broadly encompassing medical specialty. Family physicians provide continuing and comprehensive medical care, health maintenance and preventive services to each member of the family, regardless of sex, age or type of problem — biological, behavioral or social.

Family practice is a three-dimensional specialty, incorporating the dimensions of knowledge, skill and process. While knowledge and skill may be shared with other specialties, the family practice process is unique. At the center of this process is the patient-physician relationship. It is the extent to which this relationship is valued, developed and nurtured that distinguishes family practice from all other specialties.

Family physicians:

- teach patients about their own health and wellness needs, as well as those of their children. Also, they track children's growth and development.
- treat patients suffering from common acute health problems such as respiratory infections, flu, sports injuries, back pain and minor trauma (lacerations and sprains).
- examine and diagnose patients using clinical skills, medical equipment, instruments and tests.
- prescribe and administer drugs and treatments.
- immunize patients against preventable and communicable diseases.
- provide ongoing treatment for those with chronic illnesses such as diabetes, hypertension, obesity, asthma, arthritis or cardiac conditions.
- care for patients with complex medical problems, either alone or in consultation with medical or surgical subspecialists.

Most family physicians work in private offices, hospitals and clinics. They may work alone or with other physicians and are usually aided by nurses, technicians and other support personnel.



“As a medical student I chose family practice medicine because it involves each patient’s family . . . and when the patient feels better, the whole family feels better.”

Dr. Sharon Reilly
former Family Practice
Medical Student

Average Salary Range:

\$ 90,000 – 130,000

Educational Requirements

Students interested in becoming a family physician should take the most challenging high school courses available in science, math and English, including advanced placement courses.

To enter medical school, students must have a bachelor's degree, with a high grade point average in a pre-medical program or other related major. They must pass a national examination (MCAT) and undergo extensive interviews.

Upon completion of medical school, students enter a three-year post-graduate training program in family medicine (internship and residency), during which they receive training specific to family practice.

Educational Institutions

Eastern Virginia Medical School
University of Virginia
Virginia Commonwealth University

Professional Associations

Virginia Academy of Family Physicians
2301 N. Parham Road, Suite 4
Richmond, VA 23229
(804) 968-5200
www.vafp.org

Medical Society of Virginia
4205 Dover Road
Richmond, VA 23221
(804) 353-2721
www.msv.org

American Academy of Family Physicians
11400 Tomahawk Creek Parkway
Leawood, KS 66211
(913) 906-6000
www.aafp.org

Average Salary Range

\$110,000 – \$190,000

Educational Requirements

Students interested in becoming an internist should take the most challenging high school courses available in science, math and English, including advanced placement courses.

To enter medical school, students must have a bachelor's degree, with a high grade point average in a pre-medical program or other related major. They must pass a national examination (MCAT) and undergo extensive interviews.

Upon completion of medical school, students enter three years of post-graduate training (residency) during which they receive training specific to internal medicine. Those who wish further training may undertake a fellowship in a subspecialty field such as cardiology or infectious diseases.

Educational Institutions

Eastern Virginia Medical School
University of Virginia
Virginia Commonwealth University

Professional Associations

American College of Physicians –
American Society of Internal Medicine
(ACP-ASIM), 190 N. Independence Mall West
Philadelphia, PA 19106-1572
www.acponline.org

Society of General Internal Medicine
700 13th St., N.W., Suite 250
Washington, D.C. 20005
(202) 393-1662

Medical Society of Virginia
4205 Dover Road
Richmond, VA 23221
(804) 353-2721
www.msv.org

Internists are physicians who provide primary care and/or subspecialty care (in fields such as cardiology, gastroenterology, endocrinology, pulmonology, etc.) to adolescent, adult and geriatric patients. They provide continuous comprehensive medical care for acute and chronic diseases and preventive and wellness care. Internists specialize in the diagnosis and non-surgical treatment of adult patients.

Internists:

- diagnose and treat those with serious diseases, such as diabetes, heart disease and AIDS.
- treat common health problems, such as hypertension, influenza or pneumonia.
- prescribe and administer drugs and treatments.
- immunize patients to protect them from preventable diseases.
- educate patients for healthier lives.
- may be general internists who provide comprehensive medical care for all adults or subspecialty internists who have an expertise in a particular area, such as infectious diseases or cardiology.

Internists may work in private practice, hospitals, and/or clinics. Many also are involved in teaching and research. The demand for trained internists is rapidly increasing because of their broad base of medical knowledge.

Pediatrician



Pediatricians are physicians who specialize in the care and treatment of infants, children, adolescents and young adults, birth to age 21. They are expert in all areas of a child's physical and emotional growth and development.

Pediatricians:

- teach parents about the health and wellness needs of their children, including regular examinations, immunizations, nutrition and physical, mental and emotional development.
- track each child's growth and development and take action if problems arise.
- treat common childhood illnesses and injuries, such as ear infections and minor lacerations.
- examine and diagnose patients, sometimes using medical equipment, instruments and tests.
- prescribe and administer drugs and treatments.
- provide ongoing treatment and monitoring for those with chronic illnesses such as diabetes, kidney disease or cardiac conditions.
- immunize children to protect them from preventable, communicable diseases, such as chicken pox, polio, measles and hepatitis.
- care for children with complex medical problems, alone or in consultation with pediatric medical subspecialists or surgical specialists.

Most pediatricians work in private offices, hospitals and clinics. They may work alone or with other physicians and are usually aided by nurses, technicians and clerks. They also are involved in teaching and research in academic centers, as well as in the guidance of community health care in national, state and local governments and agencies and in advocacy for children and families.

Average Salary Range

\$90,000 – \$145,000

Educational Requirements

Students interested in becoming a pediatrician should take the most challenging high school courses available in science, math and English, including advanced placement courses.

To enter medical school, students must have received a bachelor's degree, with a high grade point average in a pre-medical program or other related major. They must pass a national examination (MCAT) and undergo extended interviews.

Upon completion of medical school, physicians interested in pediatrics enter post-graduate education (internship and residency) during which they receive at least three years of specialized education and practice in the field of pediatrics. Those who wish to further specialize may undertake up to three more years of education in fields such as pediatric emergency medicine.

Educational Institutions

Eastern Virginia Medical School
University of Virginia
Virginia Commonwealth University

Professional Associations

Virginia Chapter of American Academy of Pediatrics & The Virginia Pediatric Society
1200 E. Clay St.
Richmond, VA 23219
(804) 643-6631
www.virginiapediatrics.org

American Academy of Pediatrics
141 Northwest Point Blvd.
Elk Grove Village, IL 60009
(847) 434-4000
www.aap.org

Medical Society of Virginia
4205 Dover Road
Richmond, VA 23221
(804) 353-2721
www.msv.org

Average Salary Range

\$61,000 – \$120,000

Educational Requirements

Students wishing to pursue a career in podiatric medicine should take the most challenging high school courses available in science, math and English, including advanced placement courses.

To become a podiatrist, students must complete education requirements that include college and four years at a college of podiatric medicine. They also must pass national and state board examinations, and complete at least one year of postgraduate training in an approved hospital (internship/residency).

Educational Institutions

No programs are offered in Virginia.

Professional Associations

Virginia Podiatric Medical Association
6319 Castle Place, Suite 3B
Falls Church, VA 22044
(703) 536-3668
www.vpma.org

American Podiatric Medical Association
Department of Public Affairs
9312 Old Georgetown Road
Bethesda, MD 2081 41698
(301) 571-9200
(800) ASK-APMA
www.apma.org

American Association of Colleges
of Podiatric Medicine
3200 Grand Ave.
Des Moines, IA 50312
(515) 271-1464
www.aacpm.org

Podiatrists (Doctors of Podiatric Medicine) specialize in the prevention, diagnosis and treatment of foot and ankle disorders. Some podiatrists specialize in areas ranging from sports medicine to podiatric surgery to orthopedics or biomechanics.

Podiatrists:

- examine, diagnose and develop a treatment plan for patients with foot and ankle disorders resulting from injury, disease or natural aging.
- identify foot ailments that indicate more serious conditions, such as diabetes, arthritis or cardiovascular disease and refer patients to other physicians.
- prescribe and administer drugs and treatments.
- treat muscles and tendons that influence foot function, using surgery or mechanical corrective devices.
- use surgery to treat ingrown toenails, tumors, cysts and bone disorders, such as bunions and hammertoes.
- prescribe and fit corrective footwear and arch supports (orthotics).
- educate patients on how to prevent recurrence of preventable foot and ankle problems.
- teach, consult and lecture on foot health care.

Most podiatrists work in private practice, with hospital privileges for surgery and consulting.



Physician Assistant

Physician assistants perform medical exams and may assume many responsibilities as assigned by physicians. They order laboratory tests, initiate treatment or therapy and counsel patients under the direction of a physician. Physician assistants may work alone or directly with a supervising physician. Their job responsibilities depend, in part, on the laws of the state in which they practice.

Physician assistants:

- take detailed medical histories and perform physical examinations.
- order laboratory tests, X-rays, EKGs and other diagnostic studies.
- diagnose patients and decide treatment plans.
- prescribe medications.
- initiate therapy or treatment.
- suture wounds, assist in surgery, apply and remove casts and perform other therapeutic procedures.
- make hospital rounds to observe and record patients' progress and order or carry out indicated therapy.
- provide continuous medical care to patients at home, in nursing homes or other extended health care facilities.
- coordinate and supervise other health care professionals.
- counsel patients and their families on preventive care, medical problems and prescribed treatments and drugs.

Physician assistants may have specialized training in geriatrics, surgery, neonatology, pediatrics, emergency medicine or occupational medicine. They work under the supervision and direction of a licensed physician. Some work in satellite offices away from direct supervision and communicate by telephone or radio. They may work alone or with nursing staffs.



Average Salary Range

\$46,000 – \$69,000

Educational Requirements

Students wishing to pursue a physician assistant career should take the most challenging high school courses available in science, math and English, including advanced placement courses.

Licensed physician assistants must complete approved and accredited courses of study. Applicants also must pass examinations given by the National Commission for Certification of Physician Assistants.

To enter a program for physician assistants, students often are required to have completed one or more years of direct patient care. The curriculum includes courses in the basic medical sciences, along with clinical clerkships.

Educational Institutions

Jefferson College of Health Sciences
Eastern Virginia Medical School
James Madison University
Shenandoah University

Professional Associations

Virginia Academy of Physician Assistants
10301 Democracy Lane, Suite 203
Fairfax, VA 22030
(703) 691-0896
www.vapa.org

American Academy
of Physician Assistants
950 N. Washington St.
Alexandria, VA 22314
(703) 836-2272
www.aapa.org

Average Salary Range

Depends on the career and the amount of training.

\$22,000 – \$30,000 Surgical Technicians
\$50,000 – \$90,000 Perfusionist
\$14,500 – \$21,000 Home Health Aide
\$17,000 – \$25,000 Medical Assistants

Educational Requirements

Students interested in these careers should take challenging high school courses in science, math and English. Those interested in becoming medical assistants also should consider courses in secretarial skills, computer training and bookkeeping. Most of these professions require certification, which includes completing educational requirements and passing an exam specific to the career.

Professional Associations

Association of Surgical Technologists
(303) 694-9130
www.ast.org

American Academy
of Cardiovascular Perfusion
P.O. Box 3596
Allentown, PA 18106-0596
(610) 395-4853
users.aol.com/OfficeACCP

American Association of Medical Assistants
(312) 899-1500
www.aama-ntl.org

Physicians and other primary care providers often depend upon a variety of trained technologists, aides and assistants.

Descriptions of some follow:

Surgical technologists (also called operating room technicians)

Assist surgical teams before, during and after surgery. Many have training and experience as nurses' aides or licensed practical nurses. Specific duties include:

- helping surgical teams scrub and put on gloves and masks.
- washing/shaving and preparing patients for surgery.
- sterilizing equipment and operating rooms.
- passing instruments to the surgical team.
- helping hold retractors and cutting sutures.
- operating equipment, such as lights and suction machine.
- taking inventory of tools used during surgery (e.g. sponges, needles).



Perfusionists

Set up and operate heart-lung machines and monitor patients' circulation during cardiac surgery. To be accepted in a perfusion training program, students need a background in the biological sciences or training in medical technology, respiratory therapy or nursing. (No perfusionist training programs are offered in Virginia at this time.)

Related Fields

Home health aides

Provide in-home services for those unable to care for themselves. Specific duties may include:

- taking patients' temperature, blood pressure and pulse.
- administering medicines.
- changing surgical dressings/bandages.
- bathing, dressing, undressing and assisting with patients' hygiene needs.
- helping patients in and out of bed.
- purchasing food, and preparing and serving special diets to patients and families.
- feeding patients and helping them exercise.
- performing housekeeping activities.

Medical assistants

Assist physicians with patient care and office administration. Specific duties may include:

- recording patients' vital signs and measurements.
- scheduling appointments.
- coordinating records with insurers, hospitals and labs.
- performing general secretarial and bookkeeping tasks.
- preparing treatment rooms for exams.
- helping operate some medical equipment.
- giving non-intravenous injections and performing venipuncture.
- performing basic laboratory procedures, such as urinalysis and pregnancy tests.
- performing electrocardiography, first aid and CPR.



Educational Institutions

Surgical Technologist

Eastern Mennonite University
Eastern Virginia Medical School
J. Sergeant Reynolds Community College
Jefferson College of Health Sciences
Lord Fairfax Community College
Northern Virginia Community College
Paul D. Camp Community College
Piedmont Community College
Regent University
Riverside Regional Medical Center
Riverside School of Health Occupations
Sentara Norfolk General Hospital
Shore Memorial Hospital
Winchester Medical Center

Home Health Aide

Shore Memorial Hospital
Stonewall Jackson Hospital
Unico Correspondence School

Medical Assistant

Americare School of Nursing
Applied Career Training
Beta Tech
Blue Ridge Community College
Braxton School of Business
Bryant & Stratton College
Career Connections Educational Center
Career Training Solutions
Central Virginia Medical Educational Center
Faks Allied Health Education Center
Gibbs College
Kee Business College
Lafayette High School
Medical Careers Institute
Medical Learning Center
Miller-Motte Technical College
National College of Business & Technology
Norfolk Technical & Vocation Center
Richmond School of Health & Technology
Riverside Regional Medical Center of
Health Occupations
Sanz School
Tidewater Tech
Virginia School of Technology

