

## Physician

**What Physicians Do** Physicians diagnose and treat injuries or illnesses. Physicians examine patients, take medical histories, prescribe medications, and order, perform, and interpret diagnostic tests. They often counsel patients on diet, hygiene, and preventive health care. Physicians who are surgeons operate on patients to treat injuries, such as broken bones; diseases, such as cancerous tumors; and deformities, such as cleft palates.

There are two types of physicians: M.D. (Medical Doctor) and D.O. (Doctor of Osteopathic Medicine). Both types of physicians use the same methods of treatment, including drugs and surgery, but D.O.s place additional emphasis on the body's musculoskeletal system, preventive medicine, and holistic (whole person) patient care.

**Duties** Physicians typically do the following:

- Take a patient's medical history
- Update charts and patient information to show current findings
- Order tests for nurses or other healthcare staff to do
- Review test results to identify any abnormal findings
- Recommend and design a plan of treatment
- Answer concerns or questions that patients have about their health and well-being
- Discuss health topics such as proper nutrition, exercise and wellness screenings

Physicians and surgeons work in one or more of several specialties. The following are some of the many types of physicians and surgeons:

**Anesthesiologists** focus on the care of surgical patients and pain relief. They administer the drugs (anesthetics) that reduce or eliminate the sensation of pain during an operation or other medical procedure. During surgery, they are responsible for adjusting the amount of anesthetic as needed and monitoring the patient's heart rate, body temperature, blood pressure, and breathing. They also work outside of the operating room, providing pain relief in the intensive care unit, during labor and delivery, and for those who suffer from chronic pain. Anesthesiologists work with other physicians and surgeons to decide on treatments and procedures before, during, and after surgery.

**Family physicians** assess and treat a range of conditions that occur in everyday life. These conditions include anything from sinus and respiratory infections to broken bones. Family and general physicians typically have a base of regular, long-term patients. These doctors sometimes refer patients with more serious conditions to specialists or other healthcare facilities for additional care.

**Internists** diagnose and provide nonsurgical treatment for a range of problems that affect internal organ systems such as the stomach, kidneys, liver, and digestive tract. Internists use a variety of diagnostic techniques to treat patients through medication or hospitalization. They may refer

patients to other specialists when more complex care is required. They work mostly with adult patients.

**Pediatricians** provide care for infants, children, teenagers, and young adults. They specialize in diagnosing and treating problems specific to younger people. Most pediatricians treat day-to-day illnesses, minor injuries, and infectious diseases and administer vaccinations. Some pediatricians specialize in pediatric surgery or serious medical conditions that commonly affect younger patients.

**Obstetricians and gynecologists (OB/GYNs)** provide care related to pregnancy and the female reproductive system. OB/GYNs specialize in childbirth. They treat and counsel women throughout their pregnancy, and they deliver babies. They also diagnose and treat health issues specific to women, such as breast cancer, cervical cancer, hormonal disorders, and symptoms related to menopause.

**Psychiatrists** are primary mental health physicians. They diagnose and treat mental illnesses through a combination of personal counseling (psychotherapy), psychoanalysis, hospitalization, and medication. Psychotherapy involves regular discussions with patients about their problems. The psychiatrist helps them find solutions through changes in their behavioral patterns, exploring their past experiences, or group and family therapy sessions. Psychoanalysis involves long-term psychotherapy and counseling for patients. Psychiatrists may prescribe medications to correct chemical imbalances that cause some mental illnesses.

**Surgeons** specialize in treating injury, disease, and deformity through operations. Using a variety of instruments, and with patients under anesthesia, a surgeon corrects physical deformities, repairs bone and tissue after injuries, or performs preventive surgeries on patients. Although a large number perform general surgery, many surgeons choose to specialize in a specific area. Specialties include orthopedic surgery (the treatment of the musculoskeletal system), neurological surgery (treatment of the brain and nervous system), cardiovascular surgery, and plastic or reconstructive surgery. Like other physicians, surgeons also examine patients, perform and interpret diagnostic tests, and counsel patients on preventive healthcare. Some specialist physicians also perform surgery.

Among physicians and surgeons who work in a number of other medical and surgical specialties and subspecialties are allergists (specialists in diagnosing and treating hay fever and other allergies), cardiologists (heart specialists), dermatologists (skin specialists), gastroenterologists, (specialists in the digestive system), pathologists (who study body tissue to see if it is normal), radiologists (who review and interpret x-ray pictures and deliver radiation treatments for cancer and other illnesses).

**Education** Most applicants to medical school have at least a bachelor's degree, and many have advanced degrees. While a specific major is not required, all students must complete undergraduate work in biology, chemistry, physics, mathematics, and English. Students also take courses in the humanities and social sciences. Some students volunteer at local hospitals or clinics to gain experience in a healthcare setting.

Medical schools are highly competitive. Most applicants must submit transcripts, scores from the Medical College Admission Test (MCAT), and letters of recommendation. Schools also consider an applicant's personality, leadership qualities, and participation in extracurricular activities. Most schools require applicants to interview with members of the admissions committee. A few medical schools offer combined undergraduate and medical school programs that last 6 or 7 years.

Students spend most of the first 2 years of medical school in laboratories and classrooms, taking courses such as anatomy, biochemistry, pharmacology, psychology, medical ethics, and the laws governing medicine. They also gain practical skills, learning to take medical histories, examine patients, and diagnose illnesses.

During their last 2 years, medical students work with patients under the supervision of experienced physicians in hospitals and clinics. Through rotations in internal medicine, family practice, obstetrics and gynecology, pediatrics, psychiatry, and surgery, they gain experience in diagnosing and treating illnesses in a variety of areas.

**Training** After medical school, almost all graduates enter a residency program in a specialty. A residency usually takes place in a hospital and varies in duration, usually lasting from 3 to 8 years, depending on the specialty.

**Licenses** All states require physicians and surgeons be licensed; requirements vary by state. To qualify for a license, candidates must graduate from an accredited medical school, complete residency training in their specialty, and pass written and practical exams.

All physicians and surgeons must pass a standardized national licensure examination. M.D.s take the U.S. Medical Licensing Examination (USMLE). D.O.s take the Comprehensive Osteopathic Medical Licensing Examination (COMLEX-USA). For specific state information about licensing, contact your state's medical board.

### **Important Qualities**

**Communication skills.** Physicians and surgeons need to be excellent communicators. They must be able to communicate effectively with their patients and other healthcare support staff.

**Detail oriented.** Physicians and surgeons must ensure that patients are receiving appropriate treatment and medications. They must also monitor and record various pieces of information related to patient care.

**Dexterity.** Physicians and surgeons must be good at working with their hands. They work with very precise and sometimes sharp tools, and mistakes can have serious consequences.

**Empathy.** Physicians and surgeons deal with patients who are sick or injured. Some patients have long-term medical problems. Physicians and surgeons must be able to treat patients and their families with compassion and understanding.

**Leadership skills.** Physicians who work in their own practice need to be effective leaders. They must be able to manage a staff of other professionals to run their practice.

**Organizational skills.** Some physicians own their own practice. Strong organizational skills, including good recordkeeping, are critical in both medical and business settings.

**Patience.** Physicians and surgeons may work for long periods with patients who need special attention. Children and patients with a fear of medical treatment may require more patience.

**Physical stamina.** Physicians and surgeons should be comfortable performing physical tasks, such as lifting or turning disabled patients. Surgeons may spend a great deal of time bending over patients during surgery.

**Problem-solving skills.** Physicians and surgeons need to evaluate patients' symptoms and administer the appropriate treatments. They often need to do this quickly in order to save a patient's life.

**Certification** is not required for physicians and surgeons; however, it may increase their employment opportunities. M.D.s and D.O.s seeking board certification in a specialty may spend up to 7 years in residency training; the length of time varies by specialty. An examination after residency is required for certification by the American Board of Medical Specialties (ABMS) or the American Osteopathic Association (AOA).

**Pay** Wages of physicians and surgeons are among the highest of all occupations. According to the Medical Group Management Association's Physician Compensation and Production Survey, median total compensation for physicians varied by their type of practice. In 2010, physicians practicing primary care received total median annual compensation of \$202,392, and physicians practicing in medical specialties received total median annual compensation of \$356,885.

Median annual compensations for selected specialties in 2010, as reported by the Medical Group Management Association, were as follows:

Anesthesiology \$407,000  
General Surgery \$ 344,000  
Obstetrics/gynecology \$280,000  
Psychiatry \$200,000  
Pediatrics \$192,000  
Family Medicine \$190,000

Job prospects should be good for physicians who are willing to practice in rural and low-income areas, because these areas tend to have difficulty attracting physicians. Job prospects also should be good for physicians in specialties dealing with health issues that largely affect aging baby boomers such as physicians specializing in cardiology and radiology because the risks for heart disease and cancer increase as people age.

**SOURCE:**

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2012-13 Edition*, Physicians and Surgeons, on the Internet at <http://www.bls.gov/ooh/healthcare/physicians-and-surgeons.htm> (visited August 27, 2013).

Local Schools:

DO degree: Rowan University School of Osteopathic Medicine

MD degree: Cooper Medical School of Rowan University