

# Today's Veterinarian

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*Today's veterinarians are in the unique position of being the only doctors educated to protect the health of both animals and people. They are not only educated to meet the health needs of every species of animal but they play an important role in environmental protection, food safety, and public health.*

## Caring Professionals

According to consumer surveys, veterinarians consistently rank among the most respected professionals in the country. Currently more than 86,000 veterinarians actively practice in the United States and the profession is growing annually.

In taking the Veterinarian's Oath, a new graduate solemnly swears to use his or her "scientific knowledge and skills for the benefit of society through the protection of animal health, the relief of animal suffering, the conservation of animal resources, the promotion of public health, and the advancement of medical knowledge."

## Protecting the Health of Animals and Society

Employment opportunities for veterinarians are almost endless and include private or corporate clinical practice, teaching and research, regulatory medicine, public health, and military service.

### ***Private or Corporate Clinical Practice***

In the United States, approximately 69% of veterinarians are engaged in the exciting field of private or corporate clinical practice. Of these, many treat only pets such as dogs, cats, birds, small mammals (e.g., hamsters, guinea pigs), reptiles, and fish. Other veterinarians limit their practice to the care of farm/ranch animals and advise owners on the best approaches to production medicine; some exclusively treat horses; and still others treat a combination of all species.

### ***Teaching and Research***

Veterinarians may use their education to instruct veterinary students, other medical professionals, and scientists. Veterinary college/school faculty members conduct research, teach, and develop continuing education programs to help practicing veterinarians acquire new knowledge and skills.

Veterinarians employed in research at universities, colleges, governmental agencies, or in industry are dedicated to finding new ways to prevent and treat animal and human health disorders. The public can credit veterinarians for many important contributions to human health. For example, veterinarians helped control malaria and yellow fever, solved the mystery of botulism, produced an anticoagulant used to treat some people with heart disease, identified the cause of West Nile virus infection, and defined and developed surgical techniques for humans, such as hip and knee joint replacements and limb and organ transplants.

Veterinarians who work in pharmaceutical and biomedical research firms develop, test, and supervise the production of drugs and biological products, such as antibiotics and vaccines, for human and animal use.

These veterinarians usually have specialized education in fields such as pharmacology, virology, bacteriology, laboratory animal medicine, or pathology.

Veterinarians are also employed in management, technical sales and services, and other positions in agribusinesses, pet food companies, and pharmaceutical companies. They are in demand in the agricultural chemical industry, private testing laboratories, and the feed, livestock, and poultry industries.

### ***Regulatory Medicine***

Veterinarians who work for the U.S. Department of Agriculture's Food Safety and Inspection Service (FSIS) or in a state department of agriculture serve the public by preventing animal disease and promoting food safety. They ensure that food products are safe and wholesome through carefully monitored inspection programs.

To prevent the introduction of foreign diseases into the United States, veterinarians are employed by state and federal regulatory agencies to quarantine and inspect animals brought into the country. They supervise interstate shipments of animals, test for diseases, and manage campaigns to prevent and eradicate diseases such as tuberculosis, brucellosis, BSE, and rabies that pose threats to animal and human health.

United States Department of Agriculture (USDA) veterinarians in the Animal and Plant Health Inspection Service (APHIS) monitor the development and testing of new vaccines to ensure their safety and effectiveness. APHIS veterinarians are also responsible for enforcing humane laws for the treatment of animals. Other branches of the USDA, such as the Agricultural Research Service (ARS) and the Cooperative State Research, Education, and Extension Service (CSREES), also have employment opportunities for veterinarians.

### ***Public Health***

Veterinarians serve as epidemiologists in city, county, state, and federal agencies investigating animal and human disease outbreaks such as food-borne illnesses, influenza, rabies, Lyme disease, and West Nile viral encephalitis. They also help ensure the safety of food processing plants, restaurants, and water supplies.

Veterinarians working in environmental health programs study the effects of pesticides, industrial pollutants, and other contaminants on animals and people. At the U.S. Food and Drug Administration (FDA), veterinarians evaluate the safety and efficacy of medicines and food additives. Veterinarians also work at the Agricultural Research Service, Fish and Wildlife Service, Environmental Protection Agency, Centers for Disease Control and Prevention, National Library of Medicine, and National Institutes of Health. Many of these veterinarians serve in the U.S. Public Health Service Commissioned Corps.

Veterinarians in the Department of Homeland Security also help to protect the health and safety of animals and people through their work in developing antiterrorism procedures and protocols.

### ***Military Service***

Veterinarians in the U.S. Army Veterinary Corps are at the forefront in protecting the United States against bioterrorism. They are responsible for food safety, veterinary care of government-owned animals, and biomedical research and development. Officers with special training in laboratory animal medicine, pathology, microbiology, or related disciplines, conduct research in military and other governmental agencies.

In the U.S. Air Force, veterinarians serve in the Biomedical Science Corps as public health officers. They

manage communicable disease control programs at Air Force bases around the world and work towards halting the spread of HIV, influenza, hepatitis, and other infectious diseases through education, surveillance, and vaccination.

### ***Other Professional Activities***

Zoologic medicine, aquatic animal medicine, aerospace medicine (shuttle astronauts), animal shelter medicine, sports medicine (race horses, greyhounds), animal-assisted activity and therapy programs, and wildlife medicine also employ veterinarians. Two veterinarians have traveled into space as part of the NASA space shuttle program.

## **Is Veterinary Medicine Right for You?**

Today's veterinarians are extremely dedicated and willing to work long, difficult hours to save the life of an animal or help solve a public health crisis. Among the personal attributes that contribute to a successful career in veterinary medicine are:

**A SCIENTIFIC MIND**—Individuals who are interested in veterinary medicine should have an inquiring mind and keen powers of observation. Aptitude and interest in the biological sciences are important. Veterinarians must maintain a lifelong interest in scientific learning, and must genuinely like and understand animals.

**GOOD COMMUNICATION SKILLS**—Veterinarians should be able to meet, talk, and work well with a variety of people. Compassion is an essential attribute for success, especially for veterinarians working with pet owners who form strong bonds with their pets.

**MANAGEMENT EXPERIENCE**—Many work environments (e.g., private or corporate clinical practice, governmental agencies, public health programs) require that veterinarians manage other employees and businesses. Basic managerial and leadership skills make these positions much more rewarding.

## **The Road to Becoming a Veterinarian**

Students interested in a career in veterinary medicine should perform well in general science and biology in junior high school and pursue a strong science, mathematics, and biology program in high school. Before applying to veterinary college/school, students must successfully complete university level pre-veterinary undergraduate course work. Each college or school of veterinary medicine establishes its own pre-veterinary requirements, but typically these include demonstrating basic language and communication skills, and completion of courses in the social sciences, humanities, mathematics, biology, chemistry, and physics.

Admission to veterinary school is highly competitive with the number of qualified applicants admitted to veterinary schools varying from year to year. Applicants may be required to take a standardized test (for example, the Graduate Record Examination). Approximately 80% of entering students are female.

There are presently 28 AVMA Council on Education accredited colleges/schools of veterinary medicine in the United States, four in Canada, and eight in other countries. Each school is regularly evaluated by the Council on Education and must maintain the quality of its program to remain accredited.

Most veterinary schools require applicants to submit applications through the Veterinary Medical College Application Service (VMCAS). For information about VMCAS, application requirements, applicant data statistics and other admission resources, visit <http://www.aavmc.org/vmcas/vmcas.htm>.

After completing the required veterinary medical curriculum (usually over a period of four years), many graduates choose to pursue additional education in one of 20 AVMA-recognized veterinary specialties (surgery, internal medicine, animal behavior, dentistry, ophthalmology, pathology, laboratory animal medicine, preventive medicine, etc.) or graduate school.

### **A Bright Future**

Employment opportunities for veterinarians are expected to continue well into the future. The benefits of using scientific methods to breed and raise livestock, poultry, and fish, together with a growing need for effective public health and disease control programs, will continue to demand the expertise of veterinarians.

### **For More Information**

The AVMA Web site, [www.avma.org](http://www.avma.org), includes a list of all AVMA Council on Education accredited U.S. veterinary colleges/schools, AVMA-recognized veterinary specialty organizations, and additional resources on veterinary medicine.

The AVMA has produced a DVD which profiles veterinarians engaged in a variety of professional activities in different parts of the United States. To order, call the AVMA Communications Division at 847-285-6655.

### **Online Resources:**

- **Overview of Veterinary Medicine**  
[www.avma.org](http://www.avma.org)
- **Teaching and Research**  
[www.ars.usda.gov](http://www.ars.usda.gov)  
[www.craiggroup.com/aavc.htm/](http://www.craiggroup.com/aavc.htm/)  
<http://cvm.msu.edu/ORG/rgs/nationalwebsite.htm>  
[www.ncrr.nih.gov/](http://www.ncrr.nih.gov/)  
[www.aavmc.org](http://www.aavmc.org)
- **Regulatory Medicine**  
[www.usaha.org](http://www.usaha.org)  
[www.aphis.usda.gov](http://www.aphis.usda.gov)  
[www.fsis.usda.gov](http://www.fsis.usda.gov)  
[www.ars.usda.gov](http://www.ars.usda.gov)  
[www.csrees.usda.gov](http://www.csrees.usda.gov)
- **Public Health**  
[www.cdc.gov](http://www.cdc.gov)  
[www.usphs.gov](http://www.usphs.gov)  
[www.nasphv.org](http://www.nasphv.org)  
[www.fda.gov/cvm](http://www.fda.gov/cvm)  
[www.fsis.usda.gov](http://www.fsis.usda.gov)
- **Veterinary Education**  
[www.aavmc.org](http://www.aavmc.org)  
<http://www.aavmc.org/vmcas/vmcas.htm>