

## OTHER PROFESSIONAL ACTIVITIES

Veterinarians also are employed in animal welfare, zoologic medicine, aquatic animal medicine, aerospace medicine (shuttle astronauts), animal shelter medicine, sports medicine, animal-assisted activity and therapy programs, and wildlife medicine. There are veterinarians involved in local, state and federal governments, working with legislators to shape laws that protect the health, welfare and wellbeing of animals and people. Veterinarians also help conserve and manage fish and wildlife populations, and recover endangered species. Veterinarians have nearly limitless opportunities when they combine their veterinary expertise with their other individual talents and interests.

## BECOMING A VETERINARIAN

Veterinary medicine relies heavily on science. Students interested in veterinary careers should perform well in biology and other science courses in junior high school, and pursue a strong science, mathematics, and biology program in high school to prepare for pre-veterinary coursework at a college or university. Before applying to veterinary school, students must successfully complete university-level undergraduate prerequisites. Each college or school of veterinary medicine establishes its own pre-veterinary requirements, but typically these include demonstrating basic language and communication skills, and completing courses in the social sciences, mathematics, biology, chemistry, biochemistry, and physics.

Admission to veterinary school is highly competitive, with the number of qualified applicants admitted varying by school and year. Applicants may be required to take a standardized test (for example, the Graduate Record Examination or GRE). Experience with animals

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and working or volunteering with veterinarians are important, and many veterinary schools have minimum requirements for these experiences.

Most veterinary schools require applications through the Veterinary Medical College Application Service (VMCAS). For information about application requirements, applicant data statistics, the cost of veterinary school, and other admissions resources, visit [aavmc.org/vmcas](http://aavmc.org/vmcas).

After completing the required veterinary medical curriculum and earning a veterinary degree, some graduates choose to pursue additional education in one of more than 20 AVMA-recognized veterinary specialties such as surgery, internal medicine, animal behavior, dentistry, ophthalmology, pathology or preventive medicine. Visit [avma.org/Specialties](http://avma.org/Specialties) for more information about veterinary specialization.

### Is veterinary medicine right for you?

Today's veterinarians are extremely dedicated to protecting the health and wellbeing of animals and humans. Veterinarians are animal lovers, and understand the value of animals in our families and society. Other personal attributes that contribute to a successful career in veterinary medicine are:

#### A scientific mind

A student interested in veterinary medicine should have an inquiring mind and keen powers of observation. Aptitude and interest in the biological sciences are important.

#### Good communication skills

Veterinarians must meet, talk, and work well with a variety of people. Communication is essential for success.

#### Leadership and business experience

Many veterinary positions involve managing employees and businesses. These include jobs in clinical practice, government, and public health, among others. Having basic business, managerial and leadership skills contributes to greater success in these work environments.

## FOR MORE INFORMATION:

[avma.org/VetSchool101](http://avma.org/VetSchool101)

# VETERINARIANS

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Today's veterinarians are the only doctors educated to protect the health of both animals and people. They work hard to address the health and welfare needs of every species of animal. Veterinarians also play critical roles in environmental protection, research, food safety, and public health.

### PROTECTING THE HEALTH OF ANIMALS AND SOCIETY

Veterinarians work in diverse areas, such as clinical practice, research, teaching, government, industry, non-profit organizations, public health, and military service.

### CLINICAL PRACTICE

In the United States, approximately two-thirds of veterinarians work in private or corporate clinical practice, caring for a wide range of species. Many treat only pets such as dogs, cats, birds, hamsters, guinea pigs, rabbits, reptiles, and fish. Some veterinarians exclusively treat horses. Others treat a combination of species. Some veterinarians limit their practice to the care of farm/ranch animals, advising owners on food production medicine and protecting our nation's food supply from farm to fork.

### TEACHING AND RESEARCH

Veterinarians in academia teach veterinary students, veterinary technology students, other medical professionals, and scientists, and conduct research across a range of scientific disciplines. Veterinarians who are on the faculty of veterinary colleges conduct research, teach, provide care for animals in the veterinary teaching hospital, and develop continuing education programs to help practicing veterinarians acquire new knowledge and skills.

Research veterinarians employed at universities, colleges, governmental agencies, or in industry are finding new ways to diagnose, treat, and prevent animal and human health disorders. These veterinarians have made many important contributions to human health. For example, veterinarians made discoveries that helped control malaria and yellow fever, solved the mystery of botulism, produced an anticoagulant used to treat some people with heart disease,

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and identified the cause of West Nile virus infection. Veterinarians also developed and refined techniques such as permanent artificial limbs and new treatments for joint disease and broken bones.

Veterinarians in pharmaceutical and biomedical research firms develop, test, and supervise the production of drugs and biological products for human and animal use. In addition to a veterinary degree, these veterinarians usually have specialized education in fields such as pharmacology, toxicology, virology, bacteriology, laboratory animal medicine, or pathology.

Veterinarians also work in management, regulatory affairs, technical sales and service, agricultural businesses, pet food companies, and pharmaceutical companies. They also may work in the agricultural chemical industry, private testing laboratories, and the feed, livestock, and poultry industries.

### REGULATORY MEDICINE

Veterinarians fill a variety of roles in regulatory medicine to protect the safety of our food supply, prevent the introduction of disease into the United States from abroad, and assure the safety and efficacy of animal drugs:

- Supervise international and interstate shipments of animals.
- Test for diseases that could threaten animal and human health or our food supply.
- Manage campaigns to prevent and eradicate diseases, such as tuberculosis and rabies, that pose threats to animal and human health.
- Ensure that meat, poultry and egg products are safe for consumption through carefully monitored inspection programs.
- Enforce humane laws for the treatment of animals.
- Protect the health of our nation's agriculture through disease surveillance.
- Prevent animal diseases from entering the country and endangering the nation's food supply.
- Participate in research to advance animal and human health.
- Evaluate the safety and efficacy of medicines, medical products, pet foods and food additives.

Regulatory veterinarians are employed by the state departments of agriculture and the federal government. Federal agencies that employ veterinarians include the U.S. Department of Agriculture's Food Safety and Inspection Service (USDA-FSIS), Animal and Plant Health Inspection Service (USDA-APHIS), Agricultural

Research Service (USDA-ARS), National Institute of Food and Agriculture (NIFA), and the U.S. Food & Drug Administration's Center for Veterinary Medicine (CVM).

### PUBLIC HEALTH

Veterinarians play a vital role in protecting the health of our population as a whole through their numerous roles in public health, including the following:

- Investigate animal and human disease outbreaks such as food-borne illnesses, influenza, and rabies.
- Develop programs to prevent the spread of diseases such as rabies, malaria, Ebola and avian influenza.
- Ensure the safety of food processing plants, restaurants, and water supplies.
- Study the effects of pesticides, industrial pollutants, and other contaminants on animals and people.
- Develop disease surveillance and antiterrorism procedures and protocols.
- Help communities prepare for and recover from disasters.

Veterinarians may perform these roles through service in the U.S. Public Health Service, Centers for Disease Control and Prevention (CDC), Environmental Protection Agency (EPA), Food and Drug Administration (FDA), Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA), Fish and Wildlife Service, and the National Institutes of Health (NIH) and its National Library of Medicine (NLM). They also may be employed by state or tribal agencies as well as non-governmental organizations.

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### MILITARY SERVICE

Veterinarians in the U.S. Army Veterinary Corps protect the United States against bioterrorism. They are responsible for food safety, veterinary care of military animals, and biomedical research and development. Officers with special education 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 occupational illness, food borne disease, and communicable disease control programs at Air Force bases around the world. These veterinarians promote public health through surveillance of disease trends, food safety practices, and facility sanitation.

Military veterinarians also play a vital role rebuilding and improving animal care systems in underdeveloped and war-damaged countries. Many societies are heavily dependent upon animal agriculture, and improving the health of their animals improves the quality of life for the human community.

