
Veterinary Technologists and Technicians

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Significant Points

- Animal lovers get satisfaction from this occupation, but aspects of the work can be unpleasant, physically and emotionally demanding, and sometimes dangerous.
- Entrants generally complete a 2-year or 4-year veterinary technology program and must pass a State examination.
- Employment is expected to grow much faster than average.
- Overall job opportunities should be excellent; however, keen competition is expected for jobs in zoos and aquariums.

Nature of the Work

Owners of pets and other animals today expect state-of-the-art veterinary care. To provide this service, veterinarians use the skills of veterinary technologists and technicians, who perform many of the same duties for a veterinarian that a nurse would for a physician, including routine laboratory and clinical procedures. Although specific job duties vary by employer, there often is little difference between the tasks carried out by technicians and by technologists, despite some differences in formal education and training. As a result, most workers in this occupation are called technicians.

Veterinary technologists and technicians typically conduct clinical work in a private practice under the supervision of a licensed veterinarian. They often perform various medical tests and treat and diagnose medical conditions and diseases in animals. For example, they may perform laboratory tests such as urinalysis and blood counts, assist with dental prophylaxis, prepare tissue samples, take blood samples, or assist veterinarians in a variety of tests and analyses in which they often use various items of medical equipment, such as test tubes and diagnostic equipment. While most of these duties are performed in a laboratory setting, many are not. For example, some veterinary technicians obtain and record patients' case histories, expose and develop x-rays and radiographs, and provide specialized nursing care. In addition, experienced veterinary technicians may discuss a pet's condition with its owners and train new clinic personnel. Veterinary technologists and technicians assisting small-animal practitioners usually care for companion animals, such as cats and dogs, but can perform a variety of duties with mice, rats, sheep, pigs, cattle, monkeys, birds, fish, and frogs. Very few veterinary technologists work in mixed animal practices where they care for both small companion animals and larger, nondomestic animals.

Besides working in private clinics and animal hospitals, veterinary technologists and technicians may work in research facilities, where they administer medications orally or topically, prepare samples for laboratory examinations, and record information on an animal's genealogy, diet, weight, medications, food intake, and clinical signs of pain and distress. Some may sterilize laboratory and surgical equipment and provide routine post-

operative care. At research facilities, veterinary technologists typically work under the guidance of veterinarians or physicians. Some veterinary technologists vaccinate newly admitted animals and occasionally may have to euthanize seriously ill, severely injured, or unwanted animals.

While the goal of most veterinary technologists and technicians is to promote animal health, some contribute to human health as well. Veterinary technologists occasionally assist veterinarians in implementing research projects as they work with other scientists in medical-related fields such as gene therapy and cloning. Some find opportunities in biomedical research, wildlife medicine, the military, livestock management, or pharmaceutical sales.

Work environment. People who love animals get satisfaction from working with and helping them. However, some of the work may be unpleasant, physically and emotionally demanding, and sometimes dangerous. At times, veterinary technicians must clean cages and lift, hold, or restrain animals, risking exposure to bites or scratches. These workers must take precautions when treating animals with germicides or insecticides. The work setting can be noisy.

Veterinary technologists and technicians who witness abused animals or who euthanize unwanted, aged, or hopelessly injured animals may experience emotional stress. Those working for humane societies and animal shelters often deal with the public, some of whom might react with hostility to any implication that the owners are neglecting or abusing their pets. Such workers must maintain a calm and professional demeanor while they enforce the laws regarding animal care.

In some animal hospitals, research facilities, and animal shelters, a veterinary technician is on duty 24 hours a day, which means that some may work night shifts. Most full-time veterinary technologists and technicians work about 40 hours a week, although some work 50 or more hours a week.

Training, Other Qualifications, and Advancement

There are primarily two levels of education and training for entry to this occupation: a 2-year program for veterinary technicians and a 4-year program for veterinary technologists.

Education and training. Most entry-level veterinary technicians have a 2-year associate degree from an American Veterinary Medical Association (AVMA)-accredited community college program in veterinary technology in which courses are taught in clinical and laboratory settings using live animals. About 16



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colleges offer veterinary technology programs that are longer and that culminate in a 4-year bachelor's degree in veterinary technology. These 4-year colleges, in addition to some vocational schools, also offer 2-year programs in laboratory animal science. Several schools offer distance learning.

In 2006, 131 veterinary technology programs in 44 States were accredited by the American Veterinary Medical Association (AVMA). Graduation from an AVMA-accredited veterinary technology program allows students to take the credentialing exam in any State in the country.

Persons interested in careers as veterinary technologists and technicians should take as many high school science, biology, and math courses as possible. Science courses taken beyond high school, in an associate or bachelor's degree program, should emphasize practical skills in a clinical or laboratory setting.

Technologists and technicians usually begin work as trainees in routine positions under the direct supervision of a veterinarian. Entry-level workers whose training or educational background encompasses extensive hands-on experience with a variety of laboratory equipment, including diagnostic and medical equipment, usually require a shorter period of on-the-job training.

Licensure and certification. Each State regulates veterinary technicians and technologists differently; however, all States require them to pass a credentialing exam following coursework. Passing the State exam assures the public that the technician or technologist has sufficient knowledge to work in a veterinary clinic or hospital. Candidates are tested for competency through an examination that includes oral, written, and practical portions and that is regulated by the State Board of Veterinary Examiners or the appropriate State agency. Depending on the State, candidates may become registered, licensed, or certified. Most States, however, use the National Veterinary Technician (NVT) exam. Prospects usually can have their passing scores transferred from one State to another, so long as both States use the same exam.

Employers recommend American Association for Laboratory Animal Science (AALAS) certification for those seeking employment in a research facility. AALAS offers certification for three levels of technician competence, with a focus on three principal areas—animal husbandry, facility management, and animal health and welfare. Those who wish to become certified must satisfy a combination of education and experience requirements prior to taking the AALAS examination. Work experience must be directly related to the maintenance, health, and well-being of laboratory animals and must be gained in a laboratory animal facility as defined by AALAS. Candidates who meet the necessary criteria can begin pursuing the desired certification on the basis of their qualifications. The lowest level of certification is Assistant Laboratory Animal Technician (ALAT), the second level is Laboratory Animal Technician (LAT), and the highest level of certification is Laboratory Animal Technologist (LATG). The AALAS examination consists of multiple-choice questions and

is longer and more difficult for higher levels of certification, ranging from 2 hours and 120 multiple choice questions for the ALAT to 3 hours and 180 multiple choice questions for the LATG.

Other qualifications. As veterinary technologists and technicians often deal with pet owners, communication skills are very important. In addition, technologists and technicians should be able to work well with others, because teamwork with veterinarians is common. Organizational ability and the ability to pay attention to detail also are important.

Advancement. As they gain experience, technologists and technicians take on more responsibility and carry out more assignments under only general veterinary supervision. Some eventually may become supervisors.

Employment

Veterinary technologists and technicians held about 71,000 jobs in 2006. About 91 percent worked in veterinary services. The remainder worked in boarding kennels, animal shelters, stables, grooming salons, zoos, State and private educational institutions, and local, State, and Federal agencies.

Job Outlook

Excellent job opportunities will stem from the need to replace veterinary technologists and technicians who leave the occupation and from the limited output of qualified veterinary technicians from 2-year programs, which are not expected to meet the demand over the 2006-16 period. Employment is expected to grow much faster than average.

Employment change. Employment of veterinary technologists and technicians is expected to grow 41 percent over the 2006-16 projection period, which is much faster than the average for all occupations. Pet owners are becoming more affluent and more willing to pay for advanced veterinary care because many of them consider their pet to be part of the family. This growing affluence and view of pets will continue to increase the demand for veterinary care. The vast majority of veterinary technicians work at private clinical practice under veterinarians. As the number of veterinarians grows to meet the demand for veterinary care, so will the number of veterinary technicians needed to assist them.

The number of pet owners who take advantage of veterinary services for their pets—currently about 6 in 10—is expected to grow over the projection period, increasing employment opportunities. The availability of advanced veterinary services, such as preventive dental care and surgical procedures, also will provide opportunities for workers specializing in those areas as they will be needed to assist licensed veterinarians. The rapidly growing number of cats kept as companion pets is expected to boost the demand for feline medicine and services. Further demand for these workers will stem from the desire to replace veterinary assistants with more highly skilled technicians and technologists

Projections data from the National Employment Matrix

Occupational Title	SOC Code	Employment, 2006	Projected employment, 2016	Change, 2006-2016	
				Number	Percent
Veterinary technologists and technicians	29-2056	71,000	100,000	29,000	41

NOTE: Data in this table are rounded. See the discussion of the employment projections table in the *Handbook* introductory chapter on *Occupational Information Included in the Handbook*.

in animal clinics and hospitals, shelters, boarding kennels, and humane societies.

Biomedical facilities, diagnostic laboratories, wildlife facilities, humane societies, animal control facilities, drug or food manufacturing companies, and food safety inspection facilities will provide additional jobs for veterinary technologists and technicians. However, keen competition is expected for veterinary technologist and technician jobs in zoos and aquariums, due to expected slow growth in facility capacity, low turnover among workers, the limited number of positions, and the fact that the work in zoos and aquariums attracts many candidates.

Job prospects. Excellent job opportunities are expected because of the relatively few veterinary technology graduates each year. The number of 2-year programs has recently grown to 131, but due to small class sizes, fewer than 3,000 graduates are anticipated each year, which is not expected to meet demand. Additionally, many veterinary technicians remain in the field for only 7-8 years, so the need to replace workers who leave the occupation each year also will produce many job opportunities.

Employment of veterinary technicians and technologists is relatively stable during periods of economic recession. Layoffs are less likely to occur among veterinary technologists and technicians than in some other occupations because animals will continue to require medical care.

Earnings

Median hourly earnings of veterinary technologists and technicians were \$12.88 in May 2006. The middle 50 percent earned

between \$10.44 and \$15.77. The bottom 10 percent earned less than \$8.79, and the top 10 percent earned more than \$18.68.

Related Occupations

Others who work extensively with animals include animal care and service workers, and veterinary assistants and laboratory animal caretakers. Like veterinary technologists and technicians, they must have patience and feel comfortable with animals. However, the level of training required for these occupations is less than that needed by veterinary technologists and technicians. Veterinarians, who need much more formal education, also work extensively with animals, preventing, diagnosing, and treating their diseases, disorders, and injuries.

Sources of Additional Information

For information on certification as a laboratory animal technician or technologist, contact:

➤ American Association for Laboratory Animal Science, 9190 Crestwyn Hills Dr., Memphis, TN 38125.

Internet: <http://www.aalas.org>

For information on careers in veterinary medicine and a listing of AVMA-accredited veterinary technology programs, contact:

➤ American Veterinary Medical Association, 1931 N. Meacham Rd., Suite 100, Schaumburg, IL 60173-4360.

Internet: <http://www.avma.org>