

## **A CAREER IN VETERINARY MEDICINE**

### **Slide 1: Veterinary Medicine**

Hello, my name is Dr. \_\_\_\_\_ and I'm here to talk to you about veterinary medicine. Have you ever wanted to help animals and people stay healthy? Have you ever thought about working in veterinary medicine? Well, I'm here to explain what veterinarians do and answer some of your questions. Veterinary medicine is much more than you think.

### **Slide 2: Areas of Veterinary Medicine**

There are many different career paths that you can choose with a veterinary degree, and some veterinarians even choose multiple paths. The 6 main areas of veterinary medicine include: Private Practice, Teaching & Research, Regulatory Medicine, Public Health, Uniformed Services and Industry.

### **Slide 3: Private Practice**

Veterinarians in private practice are usually what most people think of when you hear about this career. These veterinarians examine animal patients, vaccinate against infectious diseases, diagnose diseases and conditions affecting animals, perform medical and surgical treatments, prevent transmission of diseases and advise owners how to keep their pets healthy. The majority of veterinarians work in this area.

### **Slide 4: Companion & Exotic Animal Practice**

Veterinarians are animal doctors, but they're more than 'dog and cat doctors.' Veterinarians in private clinical practice often work with many different types of species. These animals are pets which can include birds, fish, rabbits, ferrets, rodents, and reptiles in addition to the "traditional" dog and cat pets.

### **Slide 5: Food Animal Practice**

Veterinarians ensure a safe food supply by maintaining the health of food animals like goats, sheep, cows, pigs and chickens. This even includes veterinarians that care for the fish that we eat. After all, food safety begins on the farm with keeping the animals we use for food healthy too.

### **Slide 6: Mixed Animal Practice**

Some veterinarians may choose to work in mixed animal practice and care for several different species of small and large animals, not just one or the other. Many of these veterinarians work in rural areas, where there is a mixture of animals to treat.

### **Slide 7: Species-Specific Animal Practice**

There are even specific-species veterinarians, like equine veterinarians, who exclusively work with horses, feline veterinarians who work with cats or avian veterinarians who work with birds.

### **Slide 8: Veterinary Specialists**

A veterinarian can choose to get advanced training and become board certified in a specialty area, much like physicians do. There are more than 20 specialties for veterinarians, including surgery, dentistry, emergency and critical care, and internal medicine,. Board certification involves several years of advanced training after veterinary school, as well as additional exams.

### **Slide 9: Pets in the United States**

All of these animals need veterinarians to keep them healthy and treat them when they are sick or injured. There are millions of pets in the United States and the number is continuously growing.

### **Slide 10: Teaching & Research**

Other career options for veterinarians include teaching and research. Veterinarians working as teachers in universities and veterinary schools educate students and future veterinarians as well as perform research. Veterinary teaching and research allows for the continuous advancement in medicine which also allows both people and animals to live much longer and healthier lives.

### **Slide 11: Teaching & Research**

Research veterinarians find ways to prevent and solve health problems for animals and people, such as developing ways to reduce or eliminate the threat of animal disease.

Some important findings from veterinary research include isolating viruses and other pathogens, discovering *Salmonella* (which is a bacteria that people can get from eating or touching raw meat and animal products without washing their hands) and learning how to control diseases like *yellow fever* and *malaria* (which are diseases transmitted by mosquitoes). These veterinarians may work for state or local governments, private research laboratories, pharmaceutical companies, or at universities and veterinary schools.

### **Slide 12: Regulatory Medicine**

Regulatory veterinarians quarantine and inspect animals brought into the United States from other countries to make sure they don't infect our nation's animals with disease. They test for the presence of diseases, supervise shipments of animals and manage efforts to prevent and eliminate diseases. They also enforce state and federal animal welfare laws to make sure that animals are cared for properly.

### **Slide 13: Public Health**

Public health veterinarians help to prevent and control animal and human diseases and promote good health. Environmental health veterinarians study and evaluate the effects of pesticides, industrial pollutants and other contaminants on people and animals. Veterinarians who work in this area determine the safety and efficiency of medicines and food additives; investigate animal and human disease outbreaks and evaluate the safety of food processing plants, restaurants and water supplies.

### **Slide 14: Where can these veterinarians work?**

Veterinarians working in either regulatory medicine or public health, and even some research veterinarians often work for state & federal agencies. These veterinarians work at the United States Department of Agriculture (USDA), Food and Drug Administration (FDA), Department of Homeland Security (DHS), Environmental Protection Agency (EPA), Centers for Disease Control and Prevention (CDC) and the Department of Health & Human Services (HHS), to name a few.

### **Slide 15: Uniformed Services**

Veterinarians also work in uniformed services for the U.S. Army Veterinary Corps, U.S. Bioscience Medical Corps and the U.S. Public Health Service. Veterinarians in the U.S. Army Veterinary Corps work in biomedical research and development to manage infectious disease control programs for diseases such as HIV and encephalitis. They monitor and control insect-borne diseases such as Lyme disease and West Nile virus. These veterinarians may also manage human disease vaccination programs for diseases such as influenza and hepatitis. Veterinarians working for the U.S. Public Health Service might perform research at the National Institute of Health (NIH) or work with the USDA, FDA or DHS.

In general, military veterinarians all do similar public health work, regardless of branch. However, the Army Veterinary Corps also provides care for the military dogs, horses, and other animals in military service, as well as provides patient care to military- and civilian-owned animals.

### **Slide 16: Industry**

The final category of veterinary medicine is industry. This area includes veterinarians who work in pharmaceutical and biomedical research to develop, test and supervise the production of drugs, chemicals and biological products like antibiotics and vaccines for both animal and human use.

Industry veterinarians also work for agricultural chemical manufacturers, private testing laboratories.

### **Slide 17: The possibilities are endless!**

As you can see, veterinarians do much more than you think...or might have thought before this presentation.

Veterinarians care for and treat all animals, but they also continuously work to keep people safe, too. Veterinarians maintain the health of food animals to keep our food supply safe. They can prevent the transmission of *zoonotic diseases*, which are diseases that can be passed from animals to people (like rabies, for example). They also test medications and develop procedures and techniques to assist in the advancement of science and technology.

Veterinarians also can work in a variety of places. In this career, you can work in an aquarium, in a classroom, on a farm, in a hospital or clinic, in a laboratory in a zoo or even in space!

Not only that, but your patients could be feathered, furred, finned, or all of the above. Few careers can offer you as much variety or as many challenges as veterinary medicine.

### **Slide 18: High School Preparation**

If veterinary medicine sounds like an interesting career, you can start preparing now. In high school, you should focus on your grades and extra-curricular activities to help you get into a college program that will prepare you for veterinary school. Good grades in math and science are important, as well as good standardized test scores. Getting experience working with animals, whether it's at a veterinary clinic, animal shelter or farm, is also a great way to prepare. Don't forget that communication and leadership skills are also important!

### **Slide 19: How do you get experience?**

The more time that you spend around animals, the more it can help you to decide if this is the right career for you. You may volunteer in a place where you can work with animals or in the field of veterinary medicine, such as a local animal hospital or clinic, animal shelter or rescue.

If you are interested in veterinary medicine, you should talk to a veterinarian about their career. Veterinarians love the work that they do and they are willing to share information with interested future veterinarians. It can also help to discuss your goals and options with a career counselor or teacher who can assist you in choosing your classes and providing advice.

You may also want to join a 4-H or FFA club, if there's one in your area. These clubs can help you develop leadership and communication skills and can provide great animal-related experience. They also have scholarship opportunities.

Veterinary school can be competitive, so the more experience you have, the better.

### **Slide 20: College Preparation**

If you stay on the path to becoming a veterinarian after you graduate high school, you will need to go to undergraduate school (college or university) for an average of 4 years. During this time, you should take math and science classes and maybe join a pre-vet club to add to your experiences and interact with other people interested in veterinary medicine.

The courses you need to take in your undergraduate years depend on where you plan to apply for veterinary school. If you have a specific school in mind, make sure you find out what courses are required for admission and plan your education to meet (or, preferably, exceed) those requirements.

Pre-veterinary coursework can be completed at many colleges and universities, including those at which the veterinary medical schools are located. You should check with the veterinary college that you want to attend to make sure that you take all of the required courses and that your credits will transfer.

### **Slide 21: Admission to Veterinary School**

Completion of a pre-veterinary program does not guarantee admission to a college of veterinary medicine. Admission to veterinary school is highly competitive. Applicants usually have a "B" average or better, especially in the sciences, and may be required by the veterinary school admission policies to take appropriate examinations such as the Graduate Record Examination (GRE).

Most colleges give preference to candidates with veterinary or animal-related experience. The number of qualified applicants who are admitted to veterinary colleges nationwide varies from year to year, but the average acceptance rate is approximately 43%. You might have to apply more than once, but if it's really what you want to do, don't give up—just do what you can to make yourself a better candidate the next year.

### **Slide 22: U.S Veterinary Medical Colleges**

Currently, there are 28 accredited veterinary schools in the United States. Veterinary school includes approximately 4,000 hours of classroom, laboratory and clinical study over a 4-year period.

Once you successfully complete the veterinary school program, you are awarded a Doctor of Veterinary Medicine (DVM) or Veterinary Medical Doctor (VMD) degree. In order to practice veterinary medicine, you are required to pass state and national exams. Veterinarians who choose to become specialists go on to do internships and residencies after they graduate from veterinary school.

### **Slide 23: Veterinary Technician**

If you are not sure about becoming a veterinarian, but you would still like to work in veterinary medicine, you can consider becoming a licensed veterinary technician. Veterinary technicians are similar to nurses in human medicine.

Veterinary technicians can work in all areas of veterinary medicine. They work closely with the veterinarian, restrain animals, perform certain procedures and tests, administer treatments, monitor patients, and much more.

Veterinary technicians can also specialize in certain areas, such as surgery and anesthesia.

### **Slide 24: Many Opportunities**

So, you see, veterinary medicine has a lot of possibilities. Different career paths have different requirements and varied responsibilities, but with hard work and dedication, you can find the right job for you.

It is never too early to start thinking about the future and who knows, maybe one day, you may be standing in front of a classroom talking to students about the exciting field of veterinary medicine!

### **Slide 25: Additional Resources**

If you want more information about becoming a veterinarian, you can contact the American Veterinary Medical Association (AVMA).

The Association of American Veterinary Medical Colleges (AAVMC) is also a great resource that can provide you with information about scholarships, grants, loans, requirements for veterinary college and much more.

If you are interested in becoming a veterinary technician, you can contact the National Association of Veterinary Technicians in America (NAVTA) for information about education programs and requirements.