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# **INTRODUCCION**

Veterinary medicine is the science that deals with the prevention, diagnosis, and treatment of diseases in animals. This field encompasses both domestic animals and wild animals, including areas such as surgery, pharmacology, and epidemiology. Studying veterinary medicine not only involves understanding animal biology, but also promoting animal welfare and preventing diseases that can be transmitted to humans, known as zoonoses.

The fields of action of veterinary medicine are the areas in which the profession can be carried out as an employment, as an independent, or by developing entrepreneurship.

#### 1.- AGRICULTURE:

In this area, veterinary zootechnicians are also of great relevance, since animal production is closely related to the health part when it comes to producing food that is safe for humans. These activities include monitoring vaccinations, controlling outbreaks of epidemics when a disease is triggered in these populations, prevention and treatment of diseases, correct design of facilities, distribution of animals at different stages of the production process, nutrition and reproduction.





#### 2.- CLINIC

Working in a "Clinic" refers to all activities related to medicine in general terms: internal medicine, diagnosis and prevention of diseases, treatments, etc. These tasks can be performed in various environments





#### 3.- LABORATORIES

There are different types of laboratories in which a veterinarian can work:

- Biotechnology laboratories: Such as reproductive biotechnologies.
- **Microbiology laboratory:** To collect samples from animals with infectious processes and determine the microbiological agents causing the pathologies and their respective treatments. It is also widely used in research.
- Parasitology laboratory: Where samples obtained "in the field" are analyzed to determine diagnoses and conduct research.
- **Pathology laboratory:** Where macroscopic samples obtained from necropsies are analyzed in order to determine the diagnosis of dubious pathologies.
- Clinical pathology laboratory: Where laboratory samples previously obtained from the animal are processed to help obtain an accurate diagnosis.
- **Vivariums:** Where live animals are available to perform biological tests. They are closely related to research.
- Laboratories for the production of anti-venom serums: Where snakes and other poisonous animals such as reptiles, arachnids, among others, are available, in order to extract serums that serve as an antidote to poisonous bites or stings, requested and used in human medicine.
- Research laboratories on various topics: In the production of vaccines, drugs for human and animal use. For this type of work, it is essential that the veterinarian has postgraduate studies in molecular biology and/or genetics.





#### 4.- SURGERY

Veterinary surgery is an essential branch of veterinary medicine that is dedicated to diagnosing and treating various conditions that affect animals through surgical procedures. From the correction of congenital malformations to the treatment of traumatic injuries and diseases, veterinary surgery plays a crucial role in improving the health and well-being of our pets.



#### 5.- PUBLIC HEALTH

This is the field of action where veterinarians may have the greatest relevance in their contribution to human health worldwide. Organizations that care for health around the world require veterinarians to rigorously inspect control points where there are possible risks of dissemination of zoonotic diseases (transmission of diseases from animals to humans) and anthropozoonotic diseases (transmission of diseases from humans to animals), in order to avoid the occurrence of epidemics or pandemics in humans. These possible risk factors include means of transmission such as the consumption of contaminated food (meat, milk), through airways or by direct contact with mucous membranes or biological secretions of sick animals.



#### 6.- ANESTHESIOLOGY

Specialists in this branch are responsible for administering anesthesia before and after surgical interventions, including cesarean sections in the case of complicated births, either through epidural injections or drip infusions to control the dosage. Because some animals may be allergic to certain anesthetics, the specialist in this branch must be prepared to face setbacks and resolve them in a timely manner throughout the medical intervention.



#### 7.-RADIOLOGY

Diagnostics using X-rays, ultrasound and magnetic resonance imaging, which were long reserved for humans, are now widely used for animals as well. Of course, these tools had to be adapted by experienced radiologists so that they can be used with animals of all sizes, from small cats to large elephants.



# **CONCLUSION**

I can conclude that veterinary medicine is very extensive in various fields of medicine and in other work fields for which it is also essential for human use because, as well as being essential in certain fields we can see that it is very important in the discovery of new zoonotic diseases which are those that are transmitted from animals to humans.

Veterinary medicine is crucial in various fields in which we were able to observe the impact it has on animal health, as well as on public health, because let us remember that public health also depends on the veterinarian for the control of diseases, which the animal could have at the time it was slaughtered, the veterinarian must take charge and have control of any pathology that the animal could have had, as well as being in charge of performing the necropsy and looking for the cause of death of an animal that was going to be consumed by humans.

In summary, veterinary medicine is a fundamental pillar for animal health, food safety, scientific research and the protection of public health and the environment, which makes it a versatile and essential profession in numerous work fields.

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