Vaccinations

The following statements are general truths about vaccination for viral and bacterial diseases and the way we approach immunization of your pets.

- All puppies, kittens, rabbits and ferrets should be vaccinated. This applies whether the animals are kept inside/outside or come into contact with other animals OR NOT. Pets which are less that one year of age are much more susceptible to most infections.

- Vaccines are made from the actual organism which causes the disease that we are trying to prevent. Vaccines cause the body to develop immunity to this disease by being very similar to the actual disease.

- A type of vaccine to prevent bacterial infection is called a bacterin and is made by killing and pulverizing the bacteria and to make the vaccination injection.

- The typical vaccine that we administer to pets is for viral disease. The exceptions are Leptospirosis and Bordetella which are bacteria. The vaccine uses a variant of the disease-causing virus to produce immunity in the animal. These viruses are attenuated or changed so that they can no longer cause disease before they are used in the vaccine.

- There are two types of vaccines. **Killed** and **Live***.*

- Killed virus vaccines have dead virus particles in them which stimulate an immunity. This is the safest type of viral vaccine. This means that the vaccine is unlikely to cause the disease that we are vaccinating for. Unfortunately, killed vaccines generally are also less effective at stimulating immunity that live vaccines.

- Live virus vaccines contain actual live virus, which actually infects the animal to be vaccinated. This virus has been modified so that it can't completely cause the disease. It just stimulates immunity.

- Vaccines are labelled as to whether they are killed, live, modified live virus, or bacterin in origin.

- Live virus vaccines have the potential of actually causing the disease that they are meant to prevent, especially if given to the wrong species or to a debilitated or sick animal. Live vaccines are never given to pregnant animals as they may cause infection of the unborn foetus.

- Most vaccines are combinations of various viruses and bacterial diseases mixed into one injection. This is called a polyvalent (poly=many) vaccine. They are named by the abbreviation of the diseases they prevent: e.g., DHLP -P means this vaccination prevents Distemper, Hepatitis, Leptospirosis, Parainfluenza and Parvovirus. FVRCP means that this vaccine for cats prevents Feline Viral Rhinotracheitis, Calicivirus, and Panleukopenia. Other names include;
  Canine 5 in 1 (C5)
  Canine 7 in 1 (C7)
  F3
  F4
  F5
  Etc.

  This can all be VERY confusing!!

- In order to maximize the level of protection, puppies and kittens must be vaccinated multiple times. e.g., at 8 weeks, 12 weeks, and 16 weeks for both dogs and cats.

  This is to help protect the young immature animals from these common diseases. Most puppies and kittens are not borne with immunity to these diseases. They receive this immunity from their mother (maternal immunity) during the first few days of life. The mother passes immunity in the form of antibodies to their offspring through the first milk or <u>colostrum</u>.

  This immunity is designed to last only long enough for the young to make their own antibodies.

- Because this maternal immunity is short-lived, they must be vaccinated to fully protect these young vulnerable pets. However, we never know how long the mother's immunity will last.

  This is determined by many factors including how much immunity the mother has to pass along and how much the puppy or kitten nursed during the first two days of life.

  This 'borrowed' immunity may last anywhere from 6 weeks to 16 weeks after the animal is born.

- Vaccinations are designed to stimulate the young animal's immune system to start producing its own antibodies to protect itself and to replace the 'borrowed' immunity from the mother animal.

- If the vaccine is given to the puppy or kitten while the mother's immunity still persists in their blood-stream, then that vaccine will be inactivated by the mother's immunity before it can stimulate the young animal to produce its own antibodies.

- The object, then, is to vaccinate the youngster just as the mother's immunity in the young animal declines and before the animal comes into contact with the disease itself – this is a balancing act.

- By administering multiple vaccinations 4 or so weeks apart, we can increase the chances that the young animal is protected, since each animal may have differing immunity levels passed on from its mother.

- Usually after the initial series, yearly vaccination is enough to prevent the diseases being vaccinated against.

    - Newer information about the duration of vaccines is currently being evaluated.

    - This information suggests that vaccines may last longer than previously expected. Therefore, vaccine policies may change with regard to adult animals.

I hope that this information has been helpful in your understanding of vaccinations and why they are necessary for your pet.