

Prevent an Outbreak.....Vaccinate!

By Lea Jaunakais, President and Founder of Tiger World (www.tigerworld.us)

Do you have exotic cats and struggle with making the decision to vaccinate them? You are not alone. Whether you are a private owner, a Veterinarian, or a USDA licensed facility this can be a challenge. Many of us that have exotics utilize Veterinarians that have been trained and practicing with domestic animals but have only been exposed to exotics through their experiences with us; so even the vets seek to know the right vaccinations to use for exotics. Some examples of statements I have heard are;

- My cats are healthy they don't need vaccines.
- I want to vaccinate but I don't know what vaccines to use.
- We haven't vaccinated because there is no approved vaccine.
- Are they safe? Don't they cause bad reactions in big cats?

I have also struggled with some of these questions. From my own experience I can tell you that vaccinations are essential to prevent common diseases and to boost your animal's immunity. You may not realize it but animals that carry diseases are all around us; stray dogs and cats, wild native animals such as raccoons, foxes, coyotes and rodents. All are known carriers or vectors for diseases. It is even suggested that wild birds can spread disease (1). I am sure that many of you have a pest control regiment in place. As secure as we feel our facilities and animals are, from time to time we may get intruders. It is not just these animal intruders having contact with our animals that presents a risk. The feces of any infected animal can also spread disease.



**Diego and Dora, our Jaguar
Cubs at six weeks old.**

Our recent outbreak of Parvo Enteritis was exposed to our animals through a Zookeeper's shoes. Unknowingly we stepped in feces from an infected animal intruder somewhere around our 30 acre park and brought it into our habitats. Through DNA profiling from Cornell University the host of the Parvo virus that infected our cats was identified to be from a raccoon, a fox, or a stray domestic cat. This recent outbreak was fatal to our baby Jaguar cubs, Dora and Diego, and almost fatal to one of our tiger cubs, Malia. Although the Parvo virus that infected our cats was a mutation, the vaccines available help provide cross protection and assist in the development of immunities that fight disease. Unfortunately our little Jaguars were too fragile to fight the disease and even with 24 hour vet care we unable to save their lives.

Even though the vaccines are not labeled for big cat use several of them have been tested and used in exotic cats for many years without issues. At Tiger World we have been successfully vaccinating all of our cats since 2007. We have over 40 exotic cats including Lions, Tigers, Leopards, Jaguars, Servals, Lynx and we have never had an adverse reaction from vaccination. Nevertheless, as new developments in veterinary immunology have emerged, changes have occurred in vaccination protocols. In the past it was a common practice to vaccinate yearly with boosters, but studies have shown this is over-kill and not necessary. Vaccinating too often can lead to the development of sarcomas or tumors (2). Our attending Veterinarian Dr. Eric Setzer has come up with a good strategy for vaccination that maximizes our ability to prevent infectious disease while minimizing the occurrence of adverse reactions that can be associated with vaccination.

Here is the core vaccine regiment at Tiger World;

RABIES VACCINE:

1cc IMRAB-1 Killed Rabies vaccine given at 12 weeks of age.

1cc IMRAB-3 Killed Rabies vaccine given at 1 year of age.

1cc IMRAB-3 Killed Rabies vaccine given every 3 years thereafter.



Dr. Juston Schmidtke administering a vaccine IM at Tiger World.

Vaccination against Rabies is a vital part of public health safety and is required by law in most states for all cats and dogs above the age of 4 months (3). This is a safe and easy Intramuscular (IM) vaccine given in the hind leg muscle and most states require that it can only be administered by a licensed veterinarian. For all vaccines we use a 3ml lure lock syringe which ensures the needle is secure and will not come off during administration. If your cats are trained and comfortable with people the injection can usually be given by hand or with the use of a syringe pole. Our animals are not sedated for vaccinations.

Much of the time the cats do not notice they were given an injection. Rabies is a very important vaccine to prevent disease and it can also save your animals life. If your animal is not vaccinated against rabies and bites a human, many county and state policies are to immediately euthanize the animal, as the only way to test for rabies is through the brain. Currently across the US there are several wild animals found to be infected with rabies (4).

FVRCP VACCINE for feline Rhinotracheitis (herpes), Calicivirus, Panleukopenia viruses (parvo and feline distemper) and Chlamydia Psittaci:

1cc Fel-o-vax IV + Calicivax Killed Vaccine given at 12 weeks.

1cc Fel-o-vax IV + Calicivax Killed Vaccine given as a booster 3-4 weeks later.

1cc Fel-o-vax IV + Calicivax Killed Vaccine given at 1 year.

1cc Fel-o-vax IV + Calicivax Killed Vaccine single dose given every 3 years thereafter.

This combination vaccine given in the hind leg is a great aid in the prevention of diseases in your cats and is recommended as a Subcutaneous (under the skin) injection however it can also be given IM. Unlike Rabies, this vaccine does not require administration by a veterinarian and can be purchased through suppliers like Revival Animal Health. It must be kept refrigerated. If you are vaccinating your cats for the first time with this vaccine regardless of the animal's age you will still need to give a booster shot 3-4 weeks after the first vaccination. Along with Cornell University, our vet recommends 1 booster every 3 years thereafter (5).



**Jessica Williamson and Jennifer Mayes
administering a vaccine subcutaneously at Tiger
World.**

The feline vaccine is the only safe vaccine to give cats for Parvo. Although there are mutant strains including Canine Parvo that are now infecting cats as well as big cats, all of the Canine Parvo vaccines currently available are live vaccines and are not safe to give to cats (6). There have been reports of Canine Parvo vaccines being given to cats and the animals developed the infection and died. The varying Parvo strains have many similarities between them and the antigens from the vaccine that stimulate the development of antibodies will give your animals cross protection from the different strains out there. The important thing is to protect your animals and vaccinate them.

After vaccination you may observe a bump at the site of injection. This is normal and it goes away after a few days. We have also seen some diarrhea within 72 hours after vaccination but this is nothing to cause alarm, it is a normal response the body may have. Out of 43 cats we saw mild diarrhea in 10 of them. It was gone on the fourth day after vaccinating. Typically your animal will develop the antibodies 10-14 days after administration of the vaccine and will become immunized.

If you have never vaccinated your cats, it is not too late to start. No matter your animals age as long as they are healthy and the vaccines used are killed, not live or attenuated, data and experience indicates it is safe. For the several years we have been vaccinating we have not observed a bad reaction like sarcomas or tumors developing nor have we seen an anaphylactic reaction.

Don't be afraid to vaccinate your animals. We are all at risk of exposure since there are so many stray and wild animals around us. It is our responsibility to save and protect these amazing animals. The only way you can ensure protection is to prevent infection. *Don't wait until it's too late, Vaccinate!*

References:

- (1) Birds, Migration and Emerging Zoonoses: West Nile Virus, Lyme Disease, Influenza A and Enteropathogens Kurt D. Reed, MD, Jennifer K. Meece, PhD, James S. Henkel, BS, and Sanjay K. Shukla, PhD <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1069015/>
- (2) Vaccine associated feline Sarcomas Wallace B. Morrison, DVM, MS, DACVIM; Robin M. Starr, DVM, MED; and the Vaccine-Associated Feline Sarcoma Task Force <http://www.avma.org/vafstf/vafstf01.asp>
- (3) RABIES LAWS IN THE UNITED STATES as of 6/17/10 Information gathered by Kris Christine, Founder of the Rabies Challenge Fund Charitable Trust <http://www.dogs4dogs.com/rabies-laws>
- (4) Center for Disease Control and Prevention <http://www.cdc.gov/rabies/>
- (5) Vaccinations: The Cornell Feline Health Center College of Veterinary Medicine, Cornell University & The American Association of Feline Practitioners and the Academy of Feline Medicine Advisory Panel on Feline Vaccines http://maxshouse.com/vaccine_protocols.htm
- (6) Center for Disease Control and Prevention Feline Host Range of *Canine parvovirus*: Recent Emergence of New Antigenic Types in Cats <http://www.cdc.gov/ncidod/eid/vol8no4/01-0228.htm>