

University of Georgia. This study is using DNA-PCR testing, along with other methods, in an attempt to confirm infection and improve our knowledge about ADV.

WHAT ARE SOME QUESTIONS THAT HAVE NO ANSWERS?

- How EXACTLY is ADV transmitted or passed from ferret to ferret?
- Can ferrets fend off ADV and not become infected if exposed?
- What does a positive CEP test and a negative DNR-PCR test mean?
- When does viral shedding occur?
- When is a ferret contagious?

WHAT IS THE MORAL OF THE STORY?

The first lesson is that ferrets can look healthy and still have ADV. You cannot tell if a ferret is infected with ADV just by looking at it. The second lesson is that ferrets can pass ADV in many ways and may pass it in ways that we are not yet aware of. The third lesson is that, although ADV has no cure, we can take precautions. And the final lesson is to have your ferrets tested - IT'S GOOD TO KNOW!!

HOW DO I ORDER TESTING SUPPLIES?

Testing supplies are available through United Vaccines, Inc. by calling their customer service department at 1-800-283-6455 OR you can write to the following address:

United Vaccines, Inc.
Customer Service Department
2826 Latham Drive
Madison, WI 53713

ABOUT MD FERRET PAWS

MD Ferret PAWS strives to protect and improve the lives of ferrets in Maryland. We seek to improve the relationships between ferrets and humans through education and outreach. We promote legislation and research that makes life safer and healthier for all ferrets. Through our efforts the status and life of the ferret as a companion animal will be enhanced, legitimized, and more enjoyable for everyone. We need your help to accomplish these goals! Visit our website to see how you can become a member!



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ADV AND THE DOMESTIC FERRET: QUESTIONS AND ANSWERS

WHAT IS ADV?

ADV or Aleutian Disease Virus is a parvovirus that affects minks and ferrets. This virus was first discovered in the Aleutian Mink in 1946, making this disease much older than many people realize. It is not the same parvovirus that effects dogs and cats, however the outcome is similar. ADV is a 'wasting disease,' which means it causes excessive weight loss in a short amount of time. Unfortunately, at this time it is not curable and it is deadly.

HOW DOES ADV ATTACK MY FERRET?

Once ADV invades, a massive immune response is stimulated. Unfortunately, the antibodies will not be able to neutralize the virus. Instead, complexes are formed which deposit in the tissues of the body causing inflammation. This inflammation is what causes the disease to progress and cause damage. In actuality, it is this immune response, not the virus that causes the symptoms that occur with ADV.

HOW DOES THE DISEASE START?

ADV starts when the antibody complexes and certain immune system cells begin to settle into the tissue. This precipitates chronic illness with symptoms such as weight loss and loss of muscle tone ('wasting'), diarrhea, failure to thrive, weakness or paralysis due to spinal cord damage, lethargy, tarry stool, tremors, anemia, and anorexia among others.

HOW DOES THE DISEASE PROGRESS?

ADV acts to depress the immune system much like HIV does in humans. Ferrets become unable to respond to other diseases, thus making them a susceptible host. This opens the ferret to potential life threatening infections. Additionally, the internal organs begin to shut down particularly the kidney, spleen and liver. Eventually, the ferret succumbs to this difficult internal battle.

CAN FERRETS LIVE WITHOUT SHOWING ANY SYMPTOMS?

Some ferrets can be carriers of ADV, meaning they have the virus but they are not exhibiting any symptoms. This can be a very dangerous time for both the infected ferret and any ferrets it, or its owners, come in contact with. It may be dangerous for the infected ferret as the ferret may become infected with other illnesses. It may be dangerous for other ferrets because the infected ferret may still be contagious, otherwise known as shedding the virus. Unfortunately, very little is known about when or how often viral 'shedding' occurs.

HOW IS THE VIRUS TRANSMITTED?

It is known to be transmitted through feces, urine, saliva, and blood or from mother to kit through the placenta. It is possible that it is transmitted through the air or contact with contaminated dishes, clothing, bedding, etc.

HOW CAN I PROTECT MY FERRET FROM ADV?

Unfortunately, there is no vaccine available for ADV currently. There are tests available that can be used to detect if ADV is present in your ferret. Having your ferret tested is the first step to prevention. If your ferret is positive, consult a veterinarian immediately to discuss your options. If your ferret is negative, begin taking all the necessary precautions to prevent infection.

Begin by not attending shows that do not REQUIRE PROOF of ADV testing. Use appropriate quarantine practices if you are bringing a new ferret home. Keep any new ferrets away from your current ferrets, preferably in another house but a separate room will do if necessary. Keep them separate until you have received an ADV test result for the new ferret. Also, if you have just been in contact with ferrets whose ADV status is unknown, use some standard precautions to protect your ferrets. Before you enter your house, use a parvocidal spray (NOT an antibacterial solution) on your hands, clothing, shoes, hair or any other surface the foreign ferret came in contact with. Also, change your clothing before handling your ferrets.

WHAT KIND OF TREATMENT IS AVAILABLE?

Unfortunately, as was mentioned before, there is no cure for ADV. This virus causes many symptoms, which are generally treatable. While there is no single cure available, you can make the ferret as comfortable as possible using suitable treatments to manage the symptoms.

WHAT KINDS OF TESTS ARE AVAILABLE?

The most recommended screening test is a CEP or CIEP (CounterImmune ElectroPhoresis) test that is available through United Vaccines. This test looks for any antibodies that have been produced in response to an ADV invasion. It involves the use of a hematocrit tube of BLOOD (not saliva). There is another test available. It is an ELISA (Enzyme Linked ImmunoSorbent Assay) test from Avecon. This test has not proven itself to be as reliable as the CEP test at this time.

CAN THE TESTS BE WRONG?

There have been known to be false positive and false negative **antibody** tests. There is a test available called a PCR (Polymerase Chain Reaction) test, which looks for the pattern of ADV's viral DNA. While this sounds like the perfect alternative to antibody testing, this virus can hide in other body systems and therefore might not be captured in a blood test. Unfortunately, this fact makes this test fallible also. There are many ferret owners taking advantage of a study that is being conducted at the