Newcastle Disease Vaccine (NDV) treatment for canine distemper

History

Dr. Alson Sears, a veterinarian in the desert community of Lancaster, Calif., discovered how to use Newcastle Disease Vaccine as a treatment for canine distemper in the early 1970s. Dr. Sears had read a flyer put out by the Journal of the American Animal Hospital Association of a study that showed Newcastle Disease virus could boost levels of Interferon in cats. [He doesn’t have that flyer anymore, but there are published articles on the NDV studies in cats.1 2] He wanted to use the same technique to create interferon in dogs. However, he had made a mistake in the timing of the withdrawal. Although the protocol he was attempting to follow called for serum to be drawn at 6 to 8 hours to collect the interferon, Dr. Sears withdrew the serum at 11½ -12 hours. As confirmed by a test at Cornell University, the material he collected contained very little interferon. The lab reported the level of interferon was so low that the serum should not be used. However, by the time he received those results, he had already treated a dog with the serum and it had cleared the dog of the disease within 24 hours. Dr. Sears believes that his serum may contain a new type of immune material that can kill the distemper virus inside the cells of the infected dog. Dr. Sears calls this serum NDV-induced serum or anti-morbillivirus serum.

Dr. Sears and his clinic continued to treat distemper dogs with the NDV-induced serum and continued to see similar results. However, when he attempted to present his discovery to a veterinary conference in Las Vegas in the early 1970s, he was summarily rebuffed. “Sit down. That’s impossible,” he was told.

Despite this setback, Dr. Sears continued to treat dogs with the serum, following the new protocol he had discovered by accident. He saw a recovery rate in the high 90s for dogs treated within six days of showing symptoms. However, his serum was not effective in treating dogs in the neurologic stage of the disease.

Then, in 1974, Dr. John Adams, a retired professor of pediatric virology at UCLA put out a request in the veterinary community for dogs in the late stage of canine distemper, called Old Dog Encephalitis (ODE). Such dogs have survived the initial attack of the distemper virus, but live with neurologic symptoms such as chorea, seizures, progressive paralysis and blindness. Often these symptoms show up years after the initial infection.

Dr. Adams had been pursuing a theory that canine distemper was related to measles, and that a measles infection or vaccination early in the life of a human being could lead to multiple sclerosis later in life. He saw canine distemper dogs as a way of demonstrating his theory through an animal model.

Because such dogs were common in the Lancaster area, Dr. Sears brought Dr. Adams an eight-year-old lab mix dog with ODE to UCLA for Dr. Adams to study. The dog suffered from

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blindness and semi-paralysis. As part of the study, Dr. Adams had Dr. Sears inject the Newcastle Disease Vaccine directly into the spinal canal of the dog through the foramen magnum.

Under Dr. Adams care, the dog was observed to recover from the symptoms of ODE over the next six weeks. The dog recovered its sight, and the paralysis disappeared. After the dog was euthanized, Dr. Adams confirmed it had been infected with distemper in the nervous system.

However, plans for further studies into the possibilities of using NDV in the treatment of canine distemper, measles or multiple sclerosis came to an end when Dr. Adams died.

Dr. Sears attempted to get other researchers interested in the possibilities of Newcastle Disease Vaccine, but without success. Dr. Sears did continue to treat canine distemper dogs in the pre-neurologic stage with the NDV-induced serum until he retired in 2006. He treated more than 600 cases in his veterinary career. The serum has also been effective against respiratory herpes and other diseases, but not against parvo.

No dogs were treated with NDV into the spinal canal again until 2007 when three were treated successfully by a vet in Southeast Asia with Dr. Sears guidance. Other vets in Georgia, Texas, California, Canada and the Philippines have used this spinal tap treatment. While the success rate has not been as high as treating dogs in the early stages of the disease with serum, nearly half of these dogs have been saved.

**Dr. Alson Sears**

Dr. Alson Sears was born and raised in the Canal Zone of Panama. His early schooling was in Ancon and Balboa in the Canal Zone.

He attended the University of Pennsylvania for a bachelor’s degree and earned a doctorate in veterinary medicine from the University of California at Davis in 1963. He spent more than 40 years practicing small animal medicine in Lancaster, Calif., attending to many breeders of many different breeds. Diseases that he has developed treatments for include distemper, herpes (fading puppy syndrome), feline FUS, post-surgical cutaneous granulomas of the doxy breed, giardia, canine and feline trichomonas, babesia gibsoni and others. However, none of this has entered the veterinary literature at this time.

Dr. Sears moved to Utah after his retirement in 2006. He spends most of his time gardening, fishing and advising people about the above diseases. His email is antidistemper@aol.com.

**MAKING THE NDV-INDUCED SERUM**

*(ANTI-MORBILLIVIRUS SERUM)*

1. **DOG:** Use a 10- to 12-month-old, mixed-breed dog, 60-90 lbs, 27.27kg to 40.91kg, young and healthy.
2. Do full lab work-up to eliminate all possible health problems, especially blood-born diseases.

3. Must be previously vaccinated against all local diseases.

4. Do not use breeds or individuals known to have immune deficiency problems.

5. Make up Newcastle Disease Vaccine 1000 dose vial. (Use only the 6 cc of diluent vial that comes with the NDV or Saline if Diluent is not available). Inject 6.0cc of Diluent or Saline into the NDV vial. Discard the balance remaining from the Diluent vial. The La Sota strain or B-1 are most common. Other strains of this virus should work as well but do not use Killed Virus NDV Vaccine. Use Modified Live NDV. This virus is your cell immunity inducer.

6. Place IV Catheter in dog.

7. Inject 2.0 or 3.0cc of Newcastle virus I.V. from your vaccine bottle depending on the official weight of the dog. (Treat dog with I.V fluids accordingly) (Do Not use Corticosteroids)

8. Induction of Newcastle’s disease virus for cellular immune serum (cytokines) may only be done once on any dog. The second time around, antibodies to Newcastle’s disease are present. These are of no use and can cause an adverse reaction.

9. Timing is absolutely essential for taking serum against distemper. Take blood 11-12 hours post injection (11-12 hrs post injection= Anti-viral factors=Very effective against Distemper Virus in Vivo.) Timing is important. (Interferon, antiviral, regulatory, anti-inflammatory cytokines all have different times of production).

10. All procedures must be sterile. Just prior to the 11-12 hours post- injection, anesthetize donor dog (approx. 5-10 minutes before).

11. Place Jugular catheter.

12. Start I.V. fluids.

13. Withdraw blood between the 11th and 12th hour and inject into 10cc blood vials [sterile no additive vials] and allow the blood to clot. All VETS please take out only up to maximum amount from donor dog. Remove blood just short of putting the dog into shock. That can be determined by the color of the gums and respiratory rate. What is amazing is the speed with which a healthy dog recovers. Fluids of course help recovery. We could take about 250 cc whole blood from a 90 lb dog and get about 100 cc of usable serum (A.W. Sears DVM 6/8/09)

14. Centrifuge immediately after clotting for clear serum. Do not allow RBC’s to lyse.

15. Remove serum and place into sterile bottles.

16. Place serum bottles in baggies and store in refrigerator. Bottles of serum can be stored for up to five years in a refrigerator; longer if frozen.

17. Cryo-precipitates may form after refrigeration. Mixing causes clouding. This is not harmful.
18. May be filtered out with a .02 micron filter. Keep sterile.

19. All my donor dogs have survived. I have not lost any.

Note: Revisions may be made as new data becomes available. If you have any questions, please contact Dr. Alson W. Sears DVM for further clarification at AntiDistemper@aol.com.

Dosage

From Dr. Sears: Dose of the serum depends on age of the dog. If for herpes, single shot 1 cc to each pup at birth. If for distemper of any age the dose is 1 cc per dog plus 1 cc per 10 lbs 12 hours apart for 3 treatments. So, 20 lb dog would be 3 cc sub Q 12 hours apart 3 times. for a 30 lb dog would be 1 cc plus 3 cc for a total of 4 cc given 3 times. Not NDV as some dogs cannot or do not respond and make appropriate cytokines. UPDATE: Give the injection sub Q on the rear legs--left or right--anterior to the great muscle, NOT between the shoulders or neck area.

Screening Tests/Criteria for Donor Dogs

1) Most important is parasites; must not have any ascarids; (roundworms), as these severely change the ability to produce cytokines, also interfere with the ability to make antibodies against distemper, which interferes with vaccine also.

2) Look for skin parasites such as demodex. (All these things cause a change in the way the inducer works).

3) Full blood count

4) Full urine test

5) Thyroid test

Unfortunately, not all large dogs are eligible to be donor dogs. Mixed breeds are usually best, and some pure breeds do not create a serum that can save other dogs. Those that can’t be donor dogs include German shepherds, poodles, Irish setters, Gordon setters, English bulldogs and shar peis. There are other mixed-breed dogs that are not good donors, but fewer than the purebred dogs.

TREATMENT OF NEUROLOGIC DISTEMPER
THE NDV-INDUCTION TAP

This medical protocol covers neurologic forms of distemper, which include chorea, seizures, progressive paralysis, blindness. This medical protocol pertains to dogs of all ages who ARE infected with the neurologic forms of distemper. Presence of antidiistemper antibodies in the CSF is totally diagnostic of this problem. The neurological symptoms may appear in some dogs as soon as two weeks and in others as long as eight years after infection. In the past, any of these symptoms as noted above resulted in progressive and imminent death.

A new treatment has been developed that has been totally successful in two dogs with all the above symptoms : Both dogs have been positively diagnosed with antidiistemper antibodies in the
CSF by Antech labs in Calif.

As of Aug 6, 2008, two dogs are alive with minimal signs of the distemper neurologic secondary form. One with seizures the other with blindness and paralysis. Both are alive and doing well 10 months after initial treatment. Photos of these dogs are available as are copies or the original lab work confirming neurologic distemper. [Figures 1 and 2].

So far these two dogs have remained symptom free for 10 months. This treatment does not replace lost neural tracts. Neural recovery takes place as new tracts are formed in the brain. I have only used this on two dogs to date. Any further use of this procedure is purely experimental. This medical protocol will be updated and or revised as more information becomes available.

UPDATE JUNE 2009:
Several more successful cases have been reported from Texas, Georgia, Florida and California.

Newcastle’s Disease Virus (NDV) is the inducer that will eliminate intracellular distemper virus in the brain, also eliminate the immune disorder causing neurologic damage in the canine. (C-4 cell damage) I have used the La Sota strain only because it has been available. 1000 dose bottles with 6 cc of diluent is your inducer. This material can be purchased at any agricultural store that deals with poultry.

Medical procedure protocol for NDV-induction tap
1. Place an IV catheter.

2. Anesthetize the dog as for surgery.
3. Prep for surgery at the foramen magnum.

4. Spinal tap at the Foramen Magnum.

5. Remove 0.1 cc to 1.0 cc of spinal fluid based on the size of the dog.

6. Send the spinal fluid to a lab for testing for anti-distemper antibodies. Antech Labs.

7. Inject using the same placed needle from 0.1 to 0.5 cc of NDV depending on size of the dog directly into the spinal canal and flush the needle with ½ to 1 cc of saline.

8. Treat the dog for shock with fluids after giving this injection.

Send saved spinal fluid to Lab for Anti-Distemper Antibodies in the CSF. Any distemper antibody found is totally diagnostic for Neurologic Distemper.

Other tests to be deemed necessary by the attending veterinarian. Toxoplasmosis, immune cells, Infection, other causes of neuropathology, cancer.

NDV vaccine will initiate immune cytokines within the brain and spinal area. It will shut down the damaging immune response (active T-cells) as well as eliminate the offending Cerebral Intracellular Distemper virus within 24 hours.

Regenerative ability of the brain stem cells (Schwann cells or oligodendrocytes, and the replacement of myelin, stem cells) will allow for healing over a period of time and it will vary depending on the genetics of the dog and its ability to recover.

Control of the seizure activity at this time can be controlled with Phenobarb and other seizure medications until all symptoms come under control and disappear. The time involved here depends on the severity of the damage and the ability and genetics of the animal to recover. This can be a long-term recovery.

This procedure does not replace damaged neurons, nor does it make new myelin or Schwann cells. It does stop the progression of the disease and turns off the damaging active T-cells. It eliminates the offending intracellular distemper viruses. Allows for the survival of infected dogs and stops the immunological process from which untreated dogs will expire. Long-term recovery depends on the genetics of the dogs and the ability of the stem cell system to replace oligodendrocytes and develop new neural pathways and replace damaged myelin.

The basic ideas for these procedures were first promulgated by Dr. John Adams of UCLA in the early 70s. His thoughts were that the distemper and measles viruses were homologous and that the ODE an MS were homologous, if not identical. It would be hoped that just one interested person would read this and continue the above research into MS. May Dr. Adams, a giant in virology, rest in peace.

Life long immunity to distemper is conferred with infection from distemper virus.

Therefore repeat vaccination is equivocal. Live Parvo virus is NOT recommended. Combination vaccines are not recommended. Single killed virus vaccines are recommended after a period of time. Usually one year. If questions arise as to immunity have titers run for any virus.

NDV once given to any dog establishes NDV antibody for which there is no need. It precludes the use of NDV in any particular dog in the future as the antibody will neutralize this virus and prevent its activity on the immune system.

Test for neurologic distemper is a CSF antdistemper antibody test by a lab. Any antibody present is
diagnostic. A second test just as specific is an MRI of the brain and spinal cord. Deficits of myelin can be identified and is probable distemper, definite demyelination. A third involves the death of the animal. Pathology check of the brain will show intracellular virus. All three are diagnostic.

IgG corporeal distemper antibodies do not cross the blood brain barrier. So, if antibodies are present in the spinal fluid then you have neurologic distemper. Conversely if you have antibodies in the CSF and not in the blood serum and have had no symptoms of overt distemper then you have a rare form of distemper probably caused by vaccine.

**RECOMMENDED TREATMENT AFTER SPINAL TAP**

Drug therapy can help limit the pain dogs experience after a spinal tap treatment. The pain control and extra rest and sleep in the first week after the treatment is key. Otherwise a dog who had seemed to be rebounding will have sudden difficulties, as they crash from buildup of pain.

**UPDATE, APRIL 7, 2010:** "I talked to an old friend vet in Calif today who treated a case neurologically and had pain. He treated with Buprenorphine and said the dog was much more comfortable. And did well. I would suggest this as a post brain tap treatment to see if it helps with the pain. Buprenophine 0.005 - 0.03 mg/kg IV or IM or SQ 2 to 4 times daily. Also comes under the names of Buprenex, Buprenor, or Tungesic. Vets have access to this drug. Worth a try.

"I’m hearing of a large group of dogs that are having problems with lock jaw after being treated intrathecally. Do not know the cause. But, most of these cases go on to die or be euthanized. I think this needs to be put into the protocol as an exception. I know of no way to help this situation at this time."

Additional information, endorsed by Dr. Sears: "Also use valium orally or rectally. Between pain control and keeping them relaxed/sleeping for the first week, this helps them recover from the tap and seizures. For a 4 lb dog, we used 0.7ml up to three times a day of liquid valium—per treating vets tried both the cherry kid’s oral and the IV valium in her rectum. I was given pre-filled syringes of buprenorpnine for a week—in a big jar, and several days of pre-filled syringes of valium plus a prescription was called into my local pharmacy."

**THE BRUSH BORDER SMEAR**

Because distemper must be treated quickly, a fast diagnosis is essential. Often waiting for the results of a blood test may push the dog past the sixth day of treatment, after which the odds of saving the dog drop dramatically. The best test for rapidly diagnosing acute, systemic distemper is to do what is called a brush border smear of the cells of the lining of the bladder. These cells always have inclusions if distemper is present. So, easy to collect, easy to stain (quick dip) and instantly diagnosed inclusions in these cells are carmine red and paranuclear. These inclusions will NOT be present in long term distemper cases.

Any medical person can tell you how to get cells from the bladder. Urinary catheter. Empty bladder, flush with saline and collect some of the last saline. Spin down the saline and remove the cells. Place on slide and dry stain with diff-quick. Very common stain used by most medics or lab people who use medical microscopy. Everyone? I should hope so. Very fast, very cheap, very accurate for diagnosis of distemper. If present, then distemper. If negative, then either kennel cough or respiratory herpes or toxoplasmosis.

**Where To Get NDV**

Newcastle Disease Vaccine may be found in any agricultural supply store or purchased online.
Jeffers Livestock is where you can order NDV (LaSota strain) online. Make sure you order this one, which does not combine any other vaccines with it:

Poulvac® Newcastle B  
Newcastle Disease(LaSota Strain)(MLV)  
(Fort Dodge) Vaccine  
F7-JD Poulvac® Newcastle LaSota  
$3.97  
http://www.jefferslivestock.com/

The above company is in Dothan, Alabama.

Here are some numbers for them:  
Toll Free: 1-800-JEFFERS or 1-800-533-3377  
Local: 1-334-793-6257  
Fax: 1-334-793-5179  
Email: customerservice@jefferspet.com

Alternate supplier

The Newcastle Disease Vaccine might also be ordered through this Web site:

http://www.alibaba.com/

**TREATMENT OF ACUTE UPPER RESPIRATORY DISEASE**

Tamiflu—Turns out some of these other viruses are extremely sensitive to this medication. I would recommend that 1 mg/lb be given twice daily for at least 7 days. Should block most of the viruses we are discussing.

Antibiotics.—All these viruses cause inflammation in the lungs. (flu causes hemorrhagic pneumonia) All leave a BACTERIAL SECONDARY PNEUMONIA. My recommendation is Penicillin -G and Baytril inj three times daily in older dogs. 9 Mos or older for at least 10 days. Penicillin -G and Chloromycetin (25 mg/lb) three times daily for 10 days in younger dogs.  
(Baytril causes joint problems in younger dogs)  
Supportive fluids and feeding as necessary.  
There is an effective test for these viruses developed and available through ANTECH. This is a throat swab that distinguishes the upper respiratory viruses and give a good diagnosis. Also for distemper there is still the transitional cell bladder test. Works great to diagnose acute distemper quickly.  
There is a test for distemper antigen an intranasal swab that is done at the clinical level. Problem with this test is that it can and does go positive with vaccine distemper virus. So, it can and does give false positive tests for distemper and cause a misdiagnosis.  
Bordetella is kennel cough. It is treated with cephalosporin antibiotics. It does not routinely cause pneumonia. Can be confused with the viral diseases. I DO NOT LIKE THIS CLASS OF ANTIBIOTICS FOR PNEUMONIA IN VIRAL DISEASES.
List of upper respiratory diseases that can and are confused with distemper

Parainfluenza  
Adenovirus  
Canine influenza H3N8  
influenza H1N1  
Mycoplasma  
Corona virus  
Herpes virus  
Many bacterial pneumonias.
Treatment of secondary neurologic problems in dogs remains the same at this time. This problem is only seen in those dogs treated late in the disease or those that make a spontaneous recovery.

If you have any comments or recommendations please write to me and we can discuss them. I came to realize that a lot of the pneumonias that are reported are NOT distemper. Still need to be treated.

FREQUENTLY ASKED QUESTIONS FROM THE SAVE DOGS FROM CANINE DISTEMPER PROJECT

Will these treatments save my dog from distemper?

The short answer is yes. The long answer is that it depends on whether your dog will be treated fast enough. Dr. Sears recommends that a dog be treated within six days of seeing symptoms. Unfortunately, many dog owners do not find out about this treatment until it is nearly too late. And often if the treatment is delayed too long other opportunistic diseases can set in. By then, even if the distemper symptoms are reversed, the dog could still die of the other diseases. In medical science there are no absolute guarantees, but if a dog is treated quickly and properly with Dr. Sears' protocols, there is an excellent chance of recovery.

How do these treatments work?

We don't know the full story, yet. But here's a possible explanation: The treatments are based on the Newcastle Disease Vaccine (NDV). Newcastle Disease is something that infects chickens. The vaccine was designed to give chickens immunity from the disease, but in the dog something else entirely happens. The Newcastle Vaccine may create a response within the dog's T-cell immune system. We think this unleashes a previously unknown class of cytokines – proteins that create an immune response – that can enter a cell infected with distemper and kill the virus. We don't know how or why, but it works and it works quickly, often within 24 hours.

What are the symptoms of distemper?

Distemper is often seen in two stages. In the first pre-neurological stage – before neurologic problems – you may see hardening of the pads of feet, dulling of the eyes, mucous in the nose, coughing and respiratory trouble. Distemper attacks every system of the dog, so the damage is happening everywhere and there are symptoms you may not see. It can attack the stomach and make your dog vomit. For a while it may not attack the nervous system, this is because of the blood-brain barrier. However, it will
eventually attack the oligodendrocytes, which controls the production and protection of myelin. With the destruction of the myelin sheath that protects the nerves, the neurological stage begins with seizures. The neurologic problems could be seen as chorea – a kind of involuntary twitching and shuddering – as well as a loss of balance, chewing gum seizures – which look like the dog is trying to chew a piece of gum – to a full-body shaking and convulsions.

**So, what kind of treatment will save my dog?**

That depends on how old your dog is and what kind of symptoms you are seeing. If your dog is pre-neurological, your dog might be treated with Dr. Sears' serum. If the dog is old enough – more than 12 weeks – and has a strong enough of an immune system, an injection of the NDV vaccine may actually be all that is needed. Some dogs recover that easily. If the animal is too young a puppy or has a compromised immune system, you will need to use the serum. If the dog is neurological, then the treatment is an injection of the NDV vaccine into the spinal canal. This allows the treatment to attack the distemper virus that is destroying the nervous system.

**What is Dr Sears’ serum?**

The serum is created by using a donor dog, which is injected with the NDV vaccine. The donor dog's immune system is triggered and at a crucial time, blood is drawn from the donor. The serum is made from this blood and then can be used to save a dog in the pre-neurological stage. If used within the first six days of symptoms, the serum can stop a dog from ever having seizures.

**Is the donor dog hurt?**

No. When done properly in a veterinary clinic and monitored by a vet, the creation of the serum does not hurt the donor dog.

**But why doesn't every vet use this treatment?**

Because this is not taught in veterinary schools, and it is not yet published in a veterinary journal. It has not yet been accepted by the veterinary community. But that doesn't mean it is not valid. It is a new idea, a previously unknown ally in our battle against disease. And it was discovered by accident, by a simple veterinarian in a California desert community, not at a major research facility or university. In 1970, Dr. Sears tried to present his discovery to a veterinary conference in Las Vegas, but he was told to "sit down, that's impossible." So, he sat down and then spent years quietly saving hundreds of dogs from this disease. His work drew no attention until it was published on a Web site in 2000, and it has only been in the past couple of years since his retirement that other vets have quietly picked up his work. However, it will be a long road towards publication and acceptance. Still we have faith that this will happen eventually.

**But this is so wonderful. It’s a miracle cure, isn’t it?**

Whoa. Don’t get ahead of yourself. If the dog is treated within six days, there is an excellent chance of recovery. But so many people find out about these treatments late. This is not a resurrection technique. It cannot save a dog who has been on the brink of death for weeks and return them to health. And with the spinal tap treatment for the neurologic distemper, you must remember that the seizures usually do not go away immediately. Sometimes it takes days, weeks or months. But what we believe has happened is that the virus has been stopped, giving the dog a
chance to recover. But remember, there is always the danger of pneumonia and other diseases that can kill your dog. Also, please realize that every dog will react to this differently, just as they react to distemper differently. Factors that can affect the outcome include age, the strength of the immune system, neutering, loss of T-cell function and the genetics of the virus and of the vaccine. Even under the best of cases there will be those who do NOT respond. We aren’t promoting a miracle, but we can offer hope for distemper dogs.

And who are you?

We are Save Dogs From Canine Distemper, a project run by Kind Hearts in Action, a nonprofit based in Los Angeles to rescue and find homes for stray dogs. The project director for Save Dogs From Canine Distemper is Ed Bond, whose dog, Galen, was saved by Dr. Sears in 1997. When Galen's story was published on the Internet in 2000, Dr. Sears finally posted the protocol for his anti-distemper serum. Accounts of successfully treated dogs can be found at these Web sites:

**Kind Hearts in Action**  
http://kindheartsinaction.com/

**Save Dogs From Canine Distemper**  
http://savedistemperdogs.com/

**Twitter**  
http://twitter.com/distemperdogs

**Ed Bond**  
http://www.edbond.com/distemper/

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**SLIDESHOW ON MAKING THE NDV-INDUCED SERUM**

**Procedures for making Anti-Viral Serum**

- The following protocol is for the production of anti-Viral serum.
- This serum is used S.Q. for the control of distemper virus in dogs.

**Anti-Viral Serum**

- Dog: use an 8-12 month old mixed breed dog 60-100 lbs, young and healthy.
- Do full lab work up to eliminate all possible health problems.
- Vaccinate against all local diseases.
- Do not use breeds or individuals known to have immune deficiency problems.

**Anti-Viral Serum**

- Make up Newcastle virus vaccine 1000 dose vial.
- Use only 6 cc of diluent (Discard balance)
- La Sota strain.  
  - This virus is your cell immunity inducer.
- Place IV Catheter in dog.
- Inject 2-3cc of Newcastle virus IV  
  - (Do Not use Corticosteroids)
**Anti-Viral Serum**

- All procedures must be sterile. 11-12 hours post injection anesthetize donor dog.

**Anti-Viral Serum**

- Timing is essential. Take blood 11-12 hours post injection
- (11-12 hrs post injection Anti-viral factors Very effective against distemper Virus in VIVO.)

**Anti-Viral Serum**

- Place Jugular catheter.
- Induction of Anti-Viral serum may only be done once on any dog.
- The second time around only antibodies to Newcastles disease are produced.
- These Newcastles disease antibodies are useless for any treatment.

**Anti-Viral Serum**

- Withdraw blood.

**Anti-Viral Serum**

- Inject into 10cc blood vials (sterile no additive vials)
- Allow the blood to clot

**Anti-Viral Serum**

- Centrifuge immediately after clotting for clear serum. Do not allow RBC’s to lyse.

**Anti-Viral Serum**

- Remove serum and place into sterile bottles.

**Anti-Viral Serum**

- Cryo-precipitates may form after refrigeration. Mixing causes clouding. This is not harmful.
A 90-minute video on Dr. Sears lecture about the NDV treatments is available here:

http://www.kindheartsinaction.com/archives/1718

This report was compiled by Ed Bond of Kind Hearts In Action, January 15, 2010. It was updated in January 2014.