

# Vaccination for New Castle Disease

## **Question:**

What is an appropriate way to protect my poultry against NCD?  
(Question originates from Togo.)

## **Answer:**

New Castle Disease (NCD or ND) is a disease that is caused by a virus. Of this virus exist many subtypes. These different subtypes vary greatly in their ability to induce clinical symptoms in the chicken and even within subtypes the clinical symptoms may vary. The NCD virus is spread amongst chicken or other birds through contact with other infected animals, through contaminated materials or clothes of people or through distribution of poultry products like eggs and meat. The virus can also be spread by air, water and contaminated chickenfeed.

The question whether or not to vaccinate against NCD depends on the availability of vaccines, the costs and benefits of vaccination and of course on legislation and government rules. Vaccination can be prohibited or mandatory by your government. I think in your country it's really not prohibited and it might well be preferable to vaccinate your poultry. If you are thinking about vaccinating your poultry, it is important to know something about the risk of getting the disease specific in that area.

Ideally, vaccination provides full protection against infection of the vaccinated animals and against duplication and spreading of the virus in the flock. It should also protect against clinical disease. However, most contemporary vaccines give only (limited) protection against clinical symptoms. The virus can still infect and duplicate within the flock although the clinical symptoms will be less severe and the duplication rate of the virus will be reduced. Important to know is that vaccination should never be an alternative for good management or good hygiene.

## **Management**

Some management recommendations are as follows. Try to keep your poultry away from wild birds or poultry from other farmers. Your chicken run the risk of picking up a virus from wild birds but can also infect wild birds or other poultry when your flock is infected! Ideally you must prevent your poultry to come into contact with other poultry and the very best is to prevent contact with (wild) mammals as well.

Always work with materials which you only use for your chicken, note that you can spread the virus by using the materials at different places.

It is safe to use clothes you only wear when you are working with the poultry, which you leave at the entrance of the barn. This means that you have to change your clothes every time you are going to work with the chicken, and change it back when you stop with it. This might not be very practical, but try at least to change your clothes when you come in contact with suspected infected birds.

## **Vaccination**

For vaccination against New Castle Disease there are several vaccines available. There is a distinction between live and dead (inactivated) vaccines. Live vaccines are locally administered to the animal. This can be through application in the eyes, though application of

the vaccine in vapours, or through administration in the drinking water. This method leads to local protection instead of overall protection against the disease. Because live vaccines can also lead to illness, it is important to use a mild vaccine the first time it is given to challenge the immune system without inducing clinical illness.

Several circumstances decide the effect of the vaccination. The effect of vaccination can be influenced by age, simultaneous administration of other vaccines, disease of the flock while administering the vaccine, weather and the environment.

The ITA-NEW vaccine is a dead/inactivated vaccine. These kind of vaccines need to be injected intramuscularly or subcutaneously. Inactivated vaccines are not negatively influenced by the immunity of very young animals, so this method can be used for very young animals. Another advantage is that there is a low risk for the chicken of getting sick after vaccination.

To give layers full protection against disease there is more than one vaccination needed. The most advisable is to vaccinate all the chickens two times a year.

**Possibilities for vaccination:**

You should start to vaccinate your young chicken as early as possible. Preferably at an age of one day. You should repeat this after 14-18 weeks. But this is very dependent on the type of vaccine you use. Please read the descriptions on the package of the vaccine carefully. Or give us the name of the vaccine, and then we can look what's the best scheme for vaccination.

A vaccination with an inactivated vaccine like ITA-NEW gives protection for about 6 months. A repeated vaccination of the whole flock at the same time after every 6 months gives adequate protection throughout the whole year. Animals can show some mild symptoms, but this is usually not severe.

A better protection is achieved when an inactivated vaccine is combined with a live vaccine, but only when it is practical to do this. You might do this at the same time. Then you need to mix the two vaccines in one needle or inject the animals twice. But look carefully if these two vaccines can be combined in one vaccination! Otherwise you might get big damage to your animals.

Don't only use a live vaccine; this gives no good overall protection against disease.

In the instructions of the vaccine there is often a dosage scheme which can be used. There is no scheme that can be used for every case or for every sort of vaccine.

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